Public health interventions: Applications for public health nursing practice

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Public health interventions: Applications for public health nursing practice
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Contents

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Reviewer notes

I found the formatting and updated evidence cited in the chapters much more clear and applicable to current practice. I believe the evidence tips' formatting makes the full chapters for each intervention on the wheel a great deal more "readable" and easier for everyone to grasp.

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Overall, this is a very straightforward way for students and public health nursing professionals alike to refer to and know exactly what an intervention encompasses, as well as ideas for implementing the intervention, and how to stay in the public health nursing swim lane when working with other health care entities in the health care system and in communities.

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I was very impressed with the comprehensiveness of the intervention definitions, applications, and evidence tips.

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I appreciated using stories and application questions as appropriate triggers for discussion in my teaching practice.

Foreword

Public Health Interventions: Applications for Public Health Nursing Practice, first published in 2001 and commonly known as the **Public Health Intervention Wheel**, guides the actions of public health nurses and their colleagues nationally and internationally across cultures and countries. During the past 18 years, practitioners have used the Intervention Wheel framework to plan and evaluate practice, as well as respond to emergency preparedness, develop control measures for emerging contagious disease outbreaks, and promote lifestyle changes related to population health improvement.

Significant growth of the evidence base of the 2001 manual and the corresponding development of evidence-based public health practice led to the need to publish a second edition that reflects new evidence. Although the literature search is not exhaustive, we have used a systematic process to identify new evidence and revisit previous evidence. We hope this evidence update broadens the support for implementation of the 17 public health interventions. We realize that many expert public health practitioners hold a wealth of practice-based evidence that may not be reflected in this update. We encourage you to share that evidence through presentations and publication.

We do not expect that every public health professional will be proficient in all interventions at all practice levels. Your role and your agency determines the range, frequency, and practice level of respective interventions. In a larger agency, practitioners may focus on one or two interventions across one practice level. In a smaller agency, practitioners may use multiple interventions across multiple practice levels. Wherever you practice, you may find that your actions encompass a variety of interventions based on a range of evidence levels.

We hope this evidence update inspires you to grow your public health practice and support environments in which people can be healthy. In so doing each one of us contributes to the vision of Lillian Wald, founder of American community nursing:

> The call to nurse is not only for the bedside care of the sick, but to help in seeking out the deep-lying basic cause of illness and misery, that in the future there may be less sickness to nurse and to cure. (Wald, 1915, p. 65)

--Marjorie Schaffer, PhD, RN, PHN and Susan Strohschein, DNP, RN, PHN (retired)

Introduction

Public health interventions: Applications for public health nursing practice, 2nd edition

Background

Under the leadership of public health nurses, the Minnesota Department of Health (MDH) developed a manual, **Public health interventions: Applications for public health nursing practice**, to guide public health nursing practice. MDH distributed this manual, commonly known as the Public Health Intervention Wheel, to public health departments and public health nurses in 2001. Informed by literature and expert practice, the Public Health Nursing Intervention Wheel framework provides a common language that names the work of public health nurses.

Two articles published in 2004 provide details about the development and dissemination of the manual:

- Keller, L. O., Strohschein, S., Lia-Hoagberg, B., & Schaffer, M. A. (2004). Population-based public health interventions: Practice-based and evidence-supported (Part I). *Public Health Nursing, 21*(5), 453-468.
- Keller, L. O., Strohschein, S., Schaffer, M. A., & Lia-Hoagberg, B., (2004). Population-based public health interventions: Innovations in practice, teaching, and management (Part II). *Public Health Nursing, 21*(5), 469-487.

Public health nurses in Minnesota, across the United States, and in other countries, including Australia, Ireland, and Norway, embrace and use the Public Health Intervention Wheel (Anderson et al., 2018; Baisch, 2012; Bigbee, 2012; Depke, 2011; Leahy-Warren, 2018; McDonald et al., 2015; Reilly, Collier, & Edelstein, 2011; Schaffer, Anderson, & Rising, 2016; Schaffer, Kalfoss, & Glavin, 2017).

How has public health nursing practice changed?

Since the 2001 dissemination of the Public Health Intervention Wheel, changes in the socioeconomic and political landscape triggered changes in public health nursing practice. Health care reform policy began to address social determinants of health, prevention, and population health in community settings (Swider, Berkowitz, Valentine-Maher, Zenk, & Bekemeier, 2017; Bekemeier, Zahner, Kulbok, Merrill, & Kub, 2016) driving public health practice to respond in like manner. In response to the September 11, 2001 terrorist attacks and bioterrorism incidents, the U.S. federal government provided substantial funding to state and local governments for emergency preparedness activities (Katz, Attal-Juncqua, & Fischer, 2017). This funding led to including emergency preparedness activities and opportunities in public health nursing practice.

At the same time, challenges to the public health infrastructure affected the availability of resources and support for public health nursing practice. These challenges include insufficient funding, resulting in budget cuts and loss of prevention and health promotion services; a declining public health workforce, including public health nurses (PHNs); and workforce issues, such as non-competitive salaries, retirements, technology changes, lack of diversity, and lack of formal public health training (Bekemeier et al., 2016).

In response to these events and challenges, public health nurses require increased skills in system- and community-level interventions. Strengthening the public health system and improving population health depends upon expertise in community engagement and partnership development (National Institutes of Health, 2011; Robert Wood Johnson Foundation, 2017). Decreasing resources for public health work demand that public health nurses work efficiently and effectively. Using best evidence to support interventions when collaborating with systems and communities improves population health and reduces health care dollars spent on acute and crisis health care. This manual updates the best evidence for public health nursing interventions and provides PHNs with the knowledge and tools to design and implement effective interventions in their practice.

How has the Public Health Intervention Wheel changed?

All of the interventions and the five Intervention Wheel wedges remain the same. The authors simplified the manual content, and updated and aligned intervention definitions with new evidence found in the literature. Each intervention includes the following sections:

- Definition
- Practice-level examples (individual/family, community, or systems)
- Relationships to other interventions
- Basic steps for the intervention with application example
- Key points from evidence (summarizes relevant evidence with evidence levels)
- Wheel notes (concerns, thoughts, challenges relevant to the intervention)
- Reference list

A few things to keep in mind when using the manual:

- Practice-level examples related to each intervention facilitate distinguishing between practice levels.
- Real examples from the literature and/or public health nursing experience form the basis of application examples related to the intervention basic steps.
- Key points from evidence include research and non-research (evidence that reflects expert practice in the public health field that has not come through a rigorous research process) evidence.
- A story with application questions at the end of each intervention wedge encourages consideration of the intervention and facilitates application of the intervention's basic steps.

Method

The authors searched CINAHL (Cumulative Index to Nursing and Allied Health Literature) as the primary database for evidence updates on public health interventions from 2000 to 2018. The name of the intervention combined with other terms, such as public health, public health nursing, intervention, community, and nursing narrowed the search. For some interventions, alternative terms yielded additional articles, such as the use of health education for health teaching. Journals yielding a high number of articles addressing public health interventions included Public Health Nursing, the Journal of Community Health Nursing, the Journal of School Nursing, the American Journal of Public Health, and the Journal of Public Health Management and Practice.

Searching government health-related websites and textbooks provided other sources of evidence. Government websites included the Centers for Disease Control and Prevention (CDC), the National Association of County and City Health Officials (NACCHO), the World Health Organization (WHO), the U.S. Department of Health and Human Services, and state health departments. Classic textbooks on some of the interventions provided evidence for each intervention's basic steps.

The authors used the Johns Hopkins Nursing Evidence-Based Practice Model (Dang & Dearholt, 2018) to categorize evidence levels (for further explanation of evidence-based practice, see Overview of evidence-based practice and related topics, on p. 16). Although all five levels of evidence support basic steps and key evidence points for interventions, lower levels of evidence predominate. Non-experimental studies provide the primary basis for research evidence for interventions.

Public health nursing interventions

Public health nurses work in or out of schools, homes, clinics, jails, shelters, mobile vans, and dog sleds. They work with communities, the individuals and families that compose communities, and the systems that affect the health of those communities. Regardless of where or with whom they work, all PHNs use a core set of interventions to accomplish their goals.

Interventions are actions that public health nurses take on behalf of individuals/families, communities, and systems, to improve or protect health status (Minnesota Department of Health, 2001, p. 1).

This framework, known as the **Intervention Wheel**, defines the scope of public health nursing practice by type of intervention and level of practice (individual/family, community, or systems), rather than by the site of service such as home, school, occupational health, clinic, and others. The Intervention Wheel describes the scope of practice by what is similar across settings and describes the practice of public health nursing at the individual/family, community, or systems level. The Intervention Wheel answers the question, "What do public health nurses do?" and delineates public health nursing as a specialty practice of nursing. These interventions are not exclusive to public health nursing, as they are also used by other public health disciplines, except for delegated functions.

The Intervention Wheel:
The "how" of public health nursing practice

The Intervention Wheel integrates three distinct and equally important components:

1. The population-basis of public health interventions

2. Three levels of public health practice:
   - Individual/family
   - Community
   - Systems

3. Seventeen public health interventions:
   - Surveillance
   - Disease and health event investigation
   - Outreach
   - Screening
   - Case-finding
   - Referral and follow-up
   - Case management
   - Delegated functions
   - Health teaching
   - Counseling
   - Consultation
   - Collaboration
   - Coalition-building
   - Community organizing
   - Advocacy
   - Social marketing
   - Policy development and enforcement
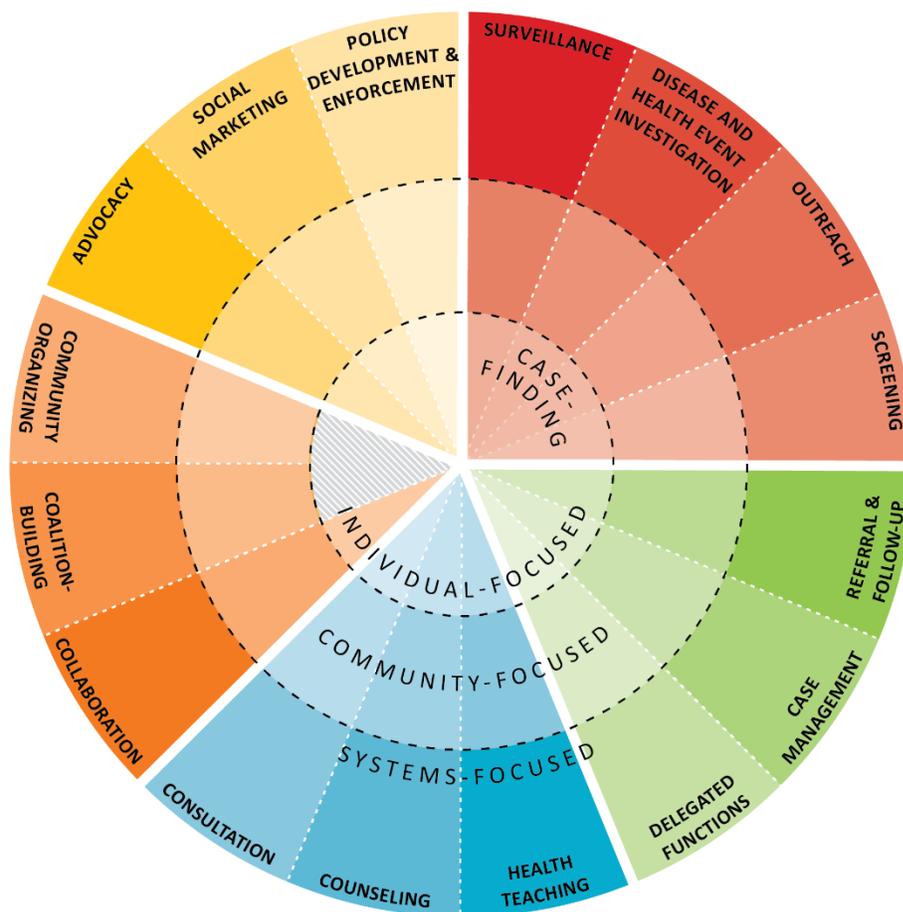
The Intervention Wheel consists of a colorful outside ring, three inner rings, and 17 "wedges" or "slices." All public health interventions are population-based. A population is a collection of individuals who have one or more personal or environmental characteristics in common. A population of interest is a population that is essentially healthy, but who could improve factors that promote or protect health. A population at risk is a population with a common identified risk factor or risk exposure that poses a threat to health.

Intervention wedges

The interventions are grouped with related interventions; these "wedges" are color coordinated to make them more recognizable.

Red wedge: **Surveillance**, **disease and health event investigation**, **outreach**, **screening**, **case-finding**. Surveillance is often paired with disease and health event investigation, even though either can be implemented independently. Screening frequently follows either surveillance or disease and health event investigation and is often preceded by outreach activities in order to maximize the number of those at risk who actually get screened. Most often, screening leads to case-finding, but this intervention can also be carried out independently or related directly to surveillance and disease and health event investigation.

Green wedge: **Referral and follow-up**, **case management**, and **delegated functions** are often implemented together.

Blue wedge: **Health teaching**, **counseling**, and **consultation** are more similar than they are different. Often health teaching and counseling are paired.

Orange wedge: **Collaboration**, **coalition-building**, and **community organizing** are grouped together because they are all types of collective action and are often carried out at the community or systems level of practice.

Yellow wedge: **Advocacy**, **social marketing**, and **policy development and enforcement** are often interrelated when implemented. In fact, advocacy is often viewed as a precursor to policy development; and social marketing is seen by some as a method of carrying out advocacy.

Population-based interventions

The Intervention Wheel is grounded in population-based practice. Interventions are population-based if they address all of the following:

1. An entire population
2. An assessment of community health
3. Broad determinants of health
4. All levels of prevention
5. All levels of practice

1. Public health interventions are population-based if they focus on entire populations possessing similar health concerns or characteristics

Population-based interventions are not limited to only those who seek service or who are poor or otherwise vulnerable. Population-based planning always begins by identifying everyone in the population of interest or the population at risk. For example, it is a core public health function to assure that all children are immunized against vaccine-preventable disease. Even though limited resources compel public health departments to target programs toward those children known to be at particular risk for being under- or unimmunized, the public health system remains accountable for the immunization status of the total population of children.

2. Public health interventions are population-based if they are guided by an assessment of population health status determined through a community health assessment process

A population-based model of practice begins with a community health assessment process. Public health analyzes health status (risk factors, problems, protective factors, assets) within populations; establishes priorities; and plans, implements, and evaluates public health programs and strategies. Public health agencies assess the health status of populations on an ongoing basis, so that public health programs respond appropriately to new and emerging problems, concerns, and opportunities. Since the 2010 passage of the Affordable Care Act (sometimes known as the ACA, the Patient Protection and Affordable Care Act, or Obamacare), nonprofit hospitals and hospital systems must also conduct community health needs assessments to maintain their federal tax-exempt status. This incentivizes local public health departments, hospital systems, and other community partners to collaborate on the community health assessment process.

3. Public health interventions are population-based if they consider the broad determinants of health

A population-based approach examines all factors that promote or prevent health. It focuses on the entire range of factors that determine health, rather than just personal health risks or disease. Examples of broad determinants of health include income and social status, race and ethnicity, housing, nutrition, employment and working conditions, social support networks, education, neighborhood safety and violence issues, physical environment, personal health practices and coping skills, cultural customs and values, and community capacity to support family and economic growth.

4. Public health interventions are population-based if they consider all levels of prevention, with a preference for primary prevention

Prevention is anticipatory action taken to prevent the occurrence of an event (primary prevention) or to minimize its effect after it has occurred (secondary prevention). A population approach is different from the medical model in which persons seek treatment when they are ill or injured. Not every event is preventable, but every

event does have a preventable component. A population-based approach presumes that prevention may occur at any point.

- **Primary prevention** promotes health and protects against health threats. It is implemented before a problem develops; it targets essentially well populations. Primary prevention promotes resiliency and protective factors or reduces susceptibility and exposure to risk factors. Examples of primary prevention include building assets in youth and immunizing for vaccine-preventable diseases. In recent literature, this approach is often labeled an "upstream" approach, in which the focus of care modifies the social determinants of health with the goal of preventing disease and disability (Schoon, Porta, & Schaffer, 2019).
- **Secondary prevention** detects and treats problems in their early stages. It is implemented after a problem has begun, but before signs and symptoms appear. Secondary prevention keeps problems from causing serious or long-term effects or from affecting other people. It identifies risks or hazards and modifies, removes, or treats them before a problem becomes more serious. It targets populations that have risk factors in common. An example is screening for home safety and correcting hazards before an injury occurs.
- **Tertiary prevention** limits further negative effects from a problem. It is implemented after a disease or injury has occurred. Tertiary prevention alleviates the effects of disease and injury and restores individuals to their optimal level of functioning. It targets populations who have experienced disease or injury. Tertiary prevention keeps existing problems from getting worse—for instance, collaborating with health care providers to ensure periodic examinations, to prevent complications of diabetes such as blindness, renal disease failure, and limb amputation.

Whenever possible, public health programs emphasize primary prevention.

5. Public health interventions are population-based if they consider all levels of practice

This concept is represented by the inner three rings of the Intervention Wheel; the inner rings of the wheel are labeled individual/family-focused, community-focused, and systems-focused

A population-based approach considers intervening at all possible levels of practice. Interventions may be directed at the entire population within a community, the systems that affect the health of those populations, and/or the individuals and families within those populations known to be at risk.

- Population-based **systems-focused practice** changes organizations, policies, laws, and power structures. The focus is not directly on individuals and communities but on the systems that impact health. Changing systems is often a more effective and long-lasting way to impact population health than requiring change from community norms or from every single individual in a community.
- Population-based **community-focused practice** changes community norms, attitudes, awareness, practices, and behaviors. It is directed toward entire populations within the community or occasionally toward specific groups within those populations. Community-focused practice is measured in terms of what proportion of the population actually changes.

- Population-based **individual-focused practice** changes knowledge, attitudes, beliefs, practices, and behaviors of individuals or families. This practice level is directed at individuals, alone, or as members in a family or group. Individuals receive services upon identification with a population at risk.

Interventions at each of these levels of practice contribute to the goal of improving population health status. Public health professionals determine the most appropriate level(s) of practice based on community need and the availability of effective strategies and resources. No one level of practice is more important than another; in fact, population health issues are addressed at all three levels, often simultaneously.

For example, when considering smoking rates among adolescents, public health nurses intervene at all practice levels. At the individual practice level, public health nurses teach middle school chemical health classes to increase knowledge about the risks of smoking, change attitudes toward tobacco use, and improve refusal skills among youth 12 to 14 years old. At the community level of practice, public health nurses coordinate youth-led and adult-supported social marketing campaigns to change the community norms regarding adolescents' tobacco use. At the systems level of practice, public health nurses facilitate community coalitions that advocate for city councils to adopt stronger ordinances restricting over-the-counter youth access to tobacco.

Cornerstones of public health nursing

Population-based practice drives the Intervention Wheel but does not address why PHNs practice public health nursing. The Cornerstones of Public Health Nursing synthesize the values and beliefs of public health and nursing to explain the values and beliefs that are the foundation for the practice of public health nursing (Keller, Strohschein, & Schaffer, 2011). Values and beliefs from public health entwine with the values and belief of nursing to produce public health nursing. Public health values include social justice, a population focus, reliance on epidemiology, health promotion and prevention, the greater good, and long-term commitment to community. Nursing contributes additional values and beliefs: caring and compassion, holistic and relationship-centered practice, sensitivity to vulnerable populations, and independent practice (pp. 251-252).

The Intervention Wheel and the core public health functions, essential services

Implementing interventions to address public health problems and opportunities identified through a community assessment result in PHNs fulfilling the core functions of public health and the 10 essential public health services. The specific set of interventions selected and implemented vary from community to community, from population to population, from problem to problem, and from department to department. Public health nurses often address the essential services as part of a team with members from other public health disciplines and other community partners. Schoon et al. (2019) provide a detailed description of core functions and the 10 essential public health services, with application to public health nursing practice (pp. 151-153).

Using the public health intervention framework

In general, the intervention framework provides a reasoned, systematic approach to practice:

- Use an intervention's basic steps to most effectively use time.
- Use interventions for problem solving when stuck or strategies are not going as expected.
- Apply best practices for planning and evaluating public health nursing interventions.

Specifically, one can use the Intervention Wheel to:

- Assure that all three levels of intervention are considered during program planning (that is, have interventions at the individual/family, community, and systems levels been considered?)
- Examine the scope of an agency's practice (Do the programs delivered cover the entire scope of practice? Are there certain interventions or levels that could be added?)
- Describe public health nursing's contributions to collaboration or coalition-building
- Explain public health nursing to other disciplines and community members
- Orient new staff
- Build and enhance staff intervention skills
- Determine what changes to evaluate (health status or intermediate changes at the individual/family, community, and systems levels) as a result of the intervention
- Teach nursing students about public health nursing
- Select evidence to support effective public health nursing practice

Overview of evidence-based practice and related topics

What is evidence-based practice?

Evidence-based practice is a problem-solving approach used by health professionals to make clinical decisions (Dang & Dearholt, 2018). Evidence-based practice involves reviewing the best available research evidence (randomized controlled trials, quasi-experimental studies, and non-experimental studies) and non-research evidence (clinical practice guidelines, position statements, literature reviews, quality improvement and evaluation data, case reports, and expert opinion) in order to determine the most effective interventions for improving client outcomes.

Why is evidence-based practice important to public health nurses?

Evidence-based practice is important to PHNs because it is more likely to contribute to:

- Improved population health
- Intended outcomes
- Effective guidelines and protocols

When do public health nurses use evidence-based practice?

Public health nurses use evidence to inform selection of recommended interventions as they collaborate with individuals/families, communities, systems, and other professionals.

What are the levels of evidence that inform evidence-based practice?

Based on the Johns Hopkins Nursing Evidence-Based Practice Model, evidence is categorized into five levels based on rigor (**Table 1**). Level 1 represents the highest level of evidence and level 5 represents the lowest level of evidence. Level 1 is more rigorous than level 5.

Level 1 Experimental studies (randomized controlled trials); systematic reviews of randomized controlled trials

Level 2 Studies with quasi-experimental designs; systematic reviews of mixed randomized controlled trials and quasi-experimental studies or only quasi-experimental studies; includes pretest-posttest evaluations

Level 3 Studies with non-experimental designs; includes qualitative studies and surveys; systematic reviews of non-experimental studies that may also include randomized controlled trials and quasi-experimental studies

Level 4 Clinical practice guidelines; consensus panels; position statements

Level 5 Literature reviews; quality improvement evaluation; program evaluation; case reports; expert opinion

Table 1: Evidence levels, key features, and public health nursing practice examples

Evidence level	Key features	Example
Level 1 (most rigorous) Experimental study, randomized controlled trial Systematic review of randomized controlled trials	Intervention present One variable manipulated Participants randomized into experimental and control groups	Older adults who received home visits had decreased difficulty and dependence for meal preparation, telephone use, shopping, and ordinary housework (instrumental activities of daily living) when compared with older adults who had usual care (Li, Liebel, & Friedman, 2013).
Level 2 Quasi-experimental study Systematic review of both randomized controlled trials and quasi-experimental studies or only quasi-experimental	Intervention present Lacks either randomization of participants or a control group	School nurses collaborated with a hospital and a school of nursing to develop and implement an injury prevention curriculum for helmet safety in elementary schools. Students from the intervention group reported increased helmet use after the intervention when compared with the control group (Adams, Drake, Dang, & Le-Hinds, 2014).

Evidence level	Key features	Example
Level 3 Non-experimental Systematic review of studies in first three levels Qualitative study Surveys	May contain intervention Lacks both randomization of participants and a control group	In response to an online survey in 29 states, PHNs reported conducting ongoing surveillance for tuberculosis, vaccine preventable diseases, sexually transmitted diseases, pediculosis (lice), food borne diseases, and elevated blood lead levels in their communities (Schaffer, Keller, & Reckinger, 2015).
Level 4 Clinical practice guidelines Expert panels Position statements	Opinion of respected authorities or national-level expert panels based on scientific evidence	CDC offers guidelines for the handling and storage of breast milk (Centers for Disease Control and Prevention, 2017).
Level 5 (least rigorous) Literature or integrative reviews Quality improvement Program evaluation[*] Case reports Expert opinion	Experiential evidence of experts	Program evaluation of the Pregnant and Parenting Team Program measured program effectiveness with data on birth outcomes, active enrollment in school, delay of repeat pregnancy, maternal-infant bonding and attachment, use of community resources, and infant growth and development. Outcome data showed progress toward goals including improvements in birth outcomes and school enrollment (Schaffer, Goodhue, Stennes, & Lanigan, 2012).

Source: Dang & Dearholt, 2018; Schoon, Porta, & Schaffer, 2019.

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[*] A program evaluation could be level 2 or 3 if study design is consistent with criteria for those levels.

What are some terms and definitions related to evidence level?

- **Literature review**: Summarizes published literature without systematic appraisal of quality or strength (Dearholt & Dang, 2018, p. 149)
- **Meta-analysis**: Uses statistical methods to analyze the results of a group of individual quantitative research studies
- **Meta-synthesis**: Combines the results of a group of individual qualitative research studies
- **Qualitative studies**: Collect data using words vs. statistical analysis. These studies have no randomization, no manipulation, and little control
- **Quantitative studies**: Collect data using numerical measures and statistical analysis; includes experimental, quasi-experimental, and non-experimental research
- **Systematic review**: Critical appraisal of research evidence

Where is evidence found?

Quality evidence resides in the following locations:

- Nursing and public health literature databases, such as CINAHL and PubMed
- Google Scholar (avoid general search engines like Google)
- Government organizations (e.g., Centers for Disease Control and Prevention)

Two online resources feature evidence-based findings and recommendations for public health interventions:

- U.S. Department of Health and Human Services: The Community Guide
- McMaster University: Health Evidence

How is the quality of evidence determined?

Although determining the level of evidence is one way of measuring its rigor, PHNs also need to consider the quality of the evidence for both research and non-research evidence. For each evidence level, *Johns Hopkins Nursing Evidence-Based Practice: Model and Guidelines* (3rd ed.) by Dang and Dearholt (2018) specifies criteria for determining whether the evidence is high quality, good quality, or low quality with major flaws.

What process does a public health nurse use to evaluate evidence?

Dang and Dearholt (2018) describe the **PET process**, which involves three steps for evaluation of evidence (**Table 2**). Although individual public health nurses can review evidence for practice, a team approach is often used to review evidence and determine best practices.

Table 2: PET process

Phase	Actions	Example
P **Practice question**	Examine the practice concern Develop the evidence-based practice question Involve stakeholders, leadership, and the team in refining the question	Public health nurses who provide health teaching, counseling, and consultation at a local senior center have noted the absence of several regular attendees due to reduced mobility from falls. The PHNs on the team providing senior services decide to assess the fall risk of seniors who attend the clinic. Their practice question is: What fall risk assessment tool for older adults in the community is accurate and convenient to use?
E **Evidence**	Conduct a search for the evidence Appraise the evidence Summarize individual evidence Synthesize strength and quality of available evidence Develop recommendations for practice change	The team consults with the state health department and the local community hospital to determine if guidelines for fall risk assessment exist. They collaborate with a local school of nursing to conduct a search for evidence-based fall risk assessments and appraise evidence for level and quality.
T **Translation**	Determine if suggested practice changes are feasible, appropriate, and a good fit Create action plan Implement and evaluate the change Disseminate findings	The team meets to determine which fall risk assessment tool would best meet their needs for assessing older adults in the community based on the available evidence. They create a plan for implementing the fall risk assessment at the senior center. After implementing the plan, the team evaluates changes that clients made in their home environments and mobility practices following participating in fall risk assessment and education. The PHNs present their findings at a local public health nursing conference.

Note: Refer to Dang and Dearholt (2018) for a more complete explanation of each of the three evidence-based practice (EBP) phases, tools useful for guiding EBP, how to create an EBP-friendly organizational environment, and EBP examples.

References

Foreword

Wald, L. (1915). *The house on Henry Street*. New York, NY: Henry Holt.

Introduction

Anderson, L. J. W., Schaffer, M. A., Hiltz, C., O'Leary, S. A., Luehr, R. E., & Yoney, E. L. (2017). Public health interventions: School nurse practice stories. *The Journal of School Nursing, 34*(3), 192-202. doi: 10.1177/1059840517721951

Baisch, M. J. (2012). A systematic method to document population-level nursing interventions in an electronic health system. *Public Health Nursing, 29*(4), 352-360.

Bekemeier, B., Zahner, S. J., Kulbok, P., Merrill, J., & Kub, J. (2016). Assuring a strong foundation for our nation's public health systems. *Nursing Outlook, 64*, 557-565. doi.org/10.1016/j.outlook.2016.05.013

Bigbee, J.L & Issel, L. M. (2012). Conceptual models for population-focused public health nursing interventions and outcomes: The state of the art. *Public Health Nursing, 29*(4), 370-379. doi: 10.1111/j.1525-1446.2011.01006.x, doi: 10.1111/j.1525-1446.2012.01008.x

Dang, D. & Dearholt, S. L. (2018*). Johns Hopkins nursing evidence-based practice: Model and guidelines, 3rd ed*. Indianapolis, IN: Sigma Theta Tau International.

Depke, J. L. & Onitilo, A. A. (2011). Coalition building and the Intervention Wheel to address breast cancer screening in Hmong women. *Clinical Medicine & Research, 4*(1), 1-6.

Katz, R., Attal-Juncqua, A., & Fischer, J. E. (2017). Funding public health emergency preparedness in the United States. *American Journal of Public Health Supplement 2, 107*, (S2), S148-S152. doi: 10.2105/AJPH.2017.303956

Keller, L. O., Strohschein, S., & Schaffer, M. A. (2011). Cornerstones of public health nursing. *Public Health Nursing, 28*(3), 249-260.

Leahy-Warren, P., Day, M. R., Philpott, L., Glavin, K., Gjevjon, E. R., Myhren, A. K., et al. (2018). A falls case summary: Application of the public health nursing intervention wheel. *Public Health Nursing, 35*, 307-316. https://doi.org/10.1111/phn.12408

McDonald, A., Frazer, K., Duignan, C., Healy, M., Irving, A., Marteinsson, P., et al. (2011). Validating the 'Intervention Wheel' in the context of Irish public health nursing. *British Journal of Community Nursing, 20*(13), 140-145.

Minnesota Department of Health. (2001). *Public health interventions: Applications for public health nursing practice*.

National Institutes of Health. (2011). *Principles of community engagement*. NIH Publication No. 11-7782. Retrieved from https://www.atsdr.cdc.gov/communityengagement/index.html

Reilly, J. R., Collier, J., & Edelstein, J. (2011). Collaborative design and use of an agency feedback form for student clinical practicum experience in community/public health nursing. *Public Health Nursing, 29*(2), 160-167. doi: 10.1111/j.1525-1446.2011.00969.x.

Robert Wood Johnson Foundation. (2017). *Building a Culture of Health*. Retrieved from http://www.cultureofhealth.org/

Schaffer, M. A., Anderson, L. J. W., & Rising, S. (2016). Public health interventions for school nursing practice. *Journal of School Nursing, 32*(3), 195-208. doi:10.1177/1059840515605361

Schaffer, M. A., Kalfoss, M., &Glavin, K. (2017). Public health nursing interventions to promote quality of life in older adult populations: A systematic review. *Journal of Nursing Education and Practice, 7*(11), 92-106. doi: 10.5430/jnep.v7n11p92

Schoon, P. M., Porta, C. M., & Schaffer, M. A. (2019*). Population-based public health clinical manual: The Henry Street model for nurses, 3nd ed*. Indianapolis, IN: Sigma Theta Tau International Society of Nursing.

Swider, S. M., Berkowitz, B., Valentine-Maher, S., Zenk, S. N., & Bekemeier, B. (2017). Engaging communities in creating health: Leveraging community benefit. *Nursing Outlook, 65*, 657-650. doi.org/10.1016/j.outlook.2017.08.002

Overview of evidence-based practice and related topics

Adams, C., Drake, D., Dang, M., & Le-Hinds, N. (2014). Optimization of injury prevention outreach for helmet safety. *Journal of Trauma Nursing, 21*, 133-138. doi:10.1097/JTN.0000000000000047

Centers for Disease Control and Prevention (CDC). (2017). *Proper handling and storage of human milk*. Retrieved from https://www.cdc.gov/breastfeeding/recommendations/handling_breastmilk.htm

Dang, D. & Dearholt, S. L. (2018). *Johns Hopkins nursing evidence-based practice: Model and guidelines, 3rd ed*. Indianapolis, IN: Sigma Theta Tau International.

Li, Y., Liebel, D. V., & Friedman, B. (2013). An investigation into which individual instrumental activities of daily living are affected by home visiting nurse intervention. *Age and Ageing, 42*, 27-33. doi: 10.1093/ageing/afs151.

McMaster University. (n.d.). *Health evidence*. Retrieved from https://www.healthevidence.org/

Schaffer, M. A., Goodhue, A., Stennes, K., & Lanigan, C. (2012). Evaluation of a public health nurse visiting program for pregnant and parenting teens. *Public Health Nursing, 29*(3), 318-231.

Schaffer, M. A., Keller, L. O., & Reckinger, D. (2015). Public health activities: Visible or invisible? *Public Health Nursing, 32*(6), 711-720. doi: 10.1111/phn.12191

Schoon, P. M., Porta, C. M., & Schaffer, M. A. (2019). *Population-based public health clinical manual: The Henry Street model for nurses, 3rd ed*. Indianapolis, IN: Sigma Theta Tau International Society of Nursing.

U.S. Department of Health and Human Services. (n.d.). *The Guide to Community Preventive Services (The Community Guide)*. Retrieved from https://www.thecommunityguide.org/

This page left intentionally blank.
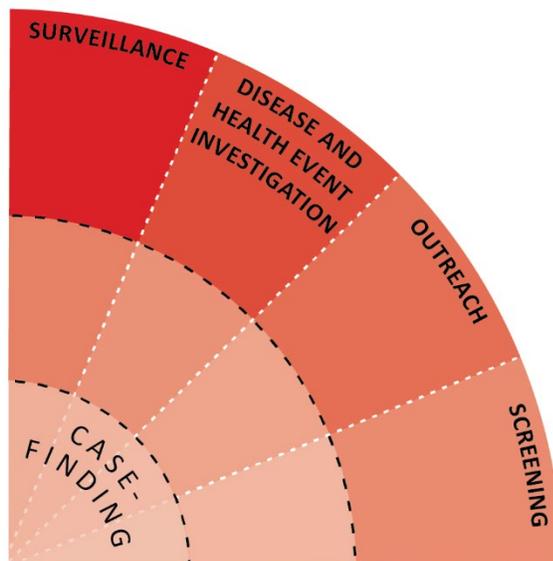
Surveillance

Surveillance is "an ongoing, systematic collection, analysis and interpretation of health-related data essential to the planning, implementation, and evaluation of public health practice" (World Health Organization, 2018).

Historically, nurses collected data and used statistics to improve health outcomes. Florence Nightingale collected and analyzed data on preventable deaths in the military in the 19th century to inform professional standards of care. In the early 20th century, Lillian Wald partnered with the Metropolitan Life Insurance Company to involve nurses in data collection for a study on mortality from tuberculosis (Earl, 2009).

Practice-level examples

Population of interest: Entire population with special attention to pregnant women, elderly, immunocompromised, those with chronic illnesses, and infants less than six months of age.

Problem: Seasonal influenza, which can be fatal. The incidence of influenza was elevated across the United States during the 2017-18 season. The Centers for Disease Control and Prevention (2018) surveillance data for one week in February 2018 indicated the proportion of outpatient visits for influenza-like illness was 6.4 percent (compared with a national rate of 2.2 percent during the same week in 2017), and 13 pediatric deaths occurred.

Systems level

Local and state public health departments routinely collect data from outpatient and hospital laboratories to detect the influenza virus. Facilities with people in close proximity to one another, such as long-term care facilities and schools, report when their residents or students report flu-like symptoms above a certain rate. Public health nurses (PHNs) assigned to communicable disease control programs in local and state health departments monitor this information for evidence of outbreaks, which would indicate a need for increased dissemination of information on prevention to the public.

Community level

Nurses in Ontario staffed a telephone health helpline to recruit and monitor participants with influenza-like symptoms. Participants obtained a nasal specimen through self-swabbing and submitted it for testing and laboratory confirmation. An evaluation study demonstrated that self-swabbing was a practical strategy for collecting surveillance data on the influenza virus and results were similar to other surveillance systems in practice (McGolrick et al., 2016).

Individual/family level (case-finding)

Public health nurses routinely inquire about flu-like symptoms with the individuals, families, and groups, and colleagues with whom they work. During staff meetings, PHNs report and monitor flu activity in the area.

Relationship with other interventions

Surveillance focuses on significant health threats like contagious diseases, as well as health events such as chronic diseases, injury, and violence. Similar to **disease and health event investigation**, surveillance collects and analyzes health data. Unlike investigating diseases and other health events, however, surveillance is an ongoing process, which detects trends and seeks to identify changes in the *incidence* (that is, the occurrence of new cases over a set period of time) and *prevalence* (that is, the combined number of old and new cases at any one point in time). Many texts treat surveillance and disease and health event investigation as a single intervention.

Surveillance is often confused with monitoring and/or **screening**. It is important to differentiate:

- **Surveillance** assesses population health status before and after health events, looks at whole populations, measures the population health status, and may serve as the method to track cases
- **Monitoring** implies a constant adjustment of practice and looks at specific groups or individuals
- **Screening** detects previously unknown cases in a population and may serve as the method to find cases

Purposes of surveillance include:

- Serves as an early warning system to identify public health emergencies
- Guides public health policies and strategies
- Documents impact of intervention in meeting public health goals
- Helps to understand the epidemiology of a health problem in order to set priorities (World Health Organization, 2018)

Basic steps

The following steps are adapted and synthesized from a number of sources (Hopkins, 2005; Klingler et al., 2017; Lee, Montgomery, Marx, Olmsted, & Scheckler, 2007; Lee, Teutsch, Thacker, & St. Louis, 2010; Merrill, 2017):

1. Consider whether surveillance is appropriate

Since surveillance uses personnel, time, and financial resources, identify the problem and the need for surveillance data.

- What threat does the problem pose for population health?
- To what extent is information known about the problem, its causal factors, patterns of occurrence, and populations at risk?
- Is baseline data established, which is needed for comparison? Is the available data adequate?
- Is the problem preventable?
- What are the resources required to successfully facilitate planning?

2. Acquire necessary knowledge of the problem

Acquiring knowledge about factors that contribute to a health problem and the consequences of that health problem helps determine the priority for developing a surveillance system.

Understanding a problem's "natural course of history," the course that the condition would predictably take if nothing were done to intercede, will provide information about the severity of the problem and guide selection of strategies to address the problem. For example, progressive pulmonary tuberculosis kills 50 percent of those

infected within five years if left untreated. Dental caries continue to decay without treatment. Children with amblyopia, without treatment, eventually lose vision in the affected eye.

3. Establish criteria for what constitutes a "case"

Establish clear criteria to increase the accuracy of identifying a case:

- Criteria include person, place, and time (that is, who is at risk, where the event occurs, and when it occurs).
- Consider available clinical and laboratory diagnostic information.

4. Collect data from multiple sources

Aim to collect sufficient and reliable data. The use of existing data sets reduces the expenditure of resources needed for surveillance.

- Consider readily available data such as vital records, hospital discharge and emergency room visit data, medical management information and billing systems, local public health data, police records, and school records.
- Check existing registries and surveys for data regarding the population of interest.
- Consult community partners for insights on relationships of health determinants.
- Add insights from available qualitative data.

5. Maintain ethical standards

Assure confidentiality and protection of privacy. Remove personal information from data.

Ethical infringements in the surveillance process may contribute to harm and reduce the meaning and value of the data.

Ethical issues identified in a systematic qualitative review of ethical issues in public health surveillance include:

- Background conditions related to a lack of or inappropriate guiding frameworks for making judgments on surveillance systems
- Design and implementation issues regarding conflicts about priority setting for choice of surveillance system or poorly designed systems that do not consider contextual factors that influence surveillance
- Data collection and analysis privacy breaches, and consideration of informed consent
- Concerns about use of data, including privacy protection when data is shared outside the surveillance system, and the possibility of harm through stigmatization or discrimination in the dissemination of sensitive data

6. Analyze data

Use appropriate scientific and epidemiological principles. The level of analysis required varies from condition to condition.

Analyze data systematically to provide meaningful information for making decisions.

In general, analyses include such elements as:

- An assessment of the crude number of cases (that is, the number of actual cases) and rates (the number of cases per a given denominator, such as 100 persons, or 10,000 or 100,000)
- A description of the population in which the condition occurs (e.g., age, gender, race, and ethnicity)
- Where the condition occurs
- Time period over which the condition occurs

7. Effectively interpret and disseminate data

Interpret and disseminate data so decision-makers at all levels readily identify and understand the implications.

Target users and communicate in a timely way:

- Develop dissemination plans that fit intended data users.
- The communication of "data" can take many forms to reach intended users. Data is often disseminated in the form of specific numbers. Graphs, tables, and visuals enhance understanding of the data. Communicate data through stories of clients' experiences, using a qualitative approach.
- Disseminate the information on a regular basis, not just during times of crisis.

8. Evaluate impact of the surveillance system

Evaluating the surveillance system helps refine and improve the system for future use.

- Was the data collected sufficient to support accurate analysis?
- Did it generate answers to problems?
- Was the information timely?
- Have decisions been made to take action in response to information from the surveillance?
- Was it useful to those interested?
- How was the information used?
- How can it be made more useful?
- Will the information be used in the future?

Example

Nurses in Ontario, Canada staffed a telephone health helpline to recruit and monitor participants with influenza-like symptoms (McGolrick et al., 2016).

1. Consider whether surveillance is appropriate

A telephone health helpline combined with nasal self-swabbing is a surveillance strategy for early detection of influenza viruses. Clients do not have to go to a clinic for data collection; they receive a self-swabbing package and return it by mail.

2. Acquire necessary knowledge of the problem

"Influenza viruses circulate worldwide and affect people of all ages causing significant morbidity and mortality annually" (McGolrick et al., 2016, p. 2). Influenza is transmitted through respiratory droplets released into the air from coughing, sneezing, or talking, which are then inhaled or ingested. Influenza viruses can also spread indirectly through contaminated hands or surfaces. Symptoms include sudden onset of high fever, runny nose, cough, headache, exhaustion, malaise, and inflammation of the upper respiratory tract. Many people who are infected experience mild symptoms, but severe infection can lead to death.

3. Establish criteria for what constitutes a "case"

Callers to the telephone health helpline are recruited to receive a self-swabbing packet if: 1) they meet the categories of referral or self-care, and 2) they are at least 2 years old and experiencing one or more symptoms (fever, cough, runny nose, or sore throat). Cases of influenza are confirmed by laboratory testing.

4. Collect data from multiple sources

Over one year, 87 specimens out of 664 test positive for influenza. The telephone health helpline measures a 13.1 percent positivity rate, compared to 13.7 percent from FluWatch, Canada's national surveillance system that monitors the spread of flu and flu-like illnesses in the same area and time period.

5. Maintain ethical standards

Although effective as a surveillance strategy, a delay in receiving a test result could lead to a delay in treatment. Providing education about self-care and when to seek medical help can reduce potential harm.

"A laboratory diagnosis promotes the rational use of antiviral agents and discourages the inappropriate prescription of antibiotics, which could in turn potentially reduce inappropriate treatment of influenza-like illness in up to 50 percent of cases" (McGolrick et al., 2016, p. 8).

Self-swabbing through the telephone health helpline provides a potential benefit by reducing visits to clinics and emergency departments, which may reduce viral transmission in the community.

6. Analyze data

Two datasets [are] used for the self-swabbing study, one with the raw number of cases by week and another with an adjusted number of cases by week accounting for the increase in the number of nurses . . . recruiting participants at that time. (McGolrick et al., 2016, p. 4)

7. Effectively interpret and disseminate data

The implementation of a self-swabbing surveillance system provides an opportunity for public health authorities to generate diagnostic information that can be relayed to physicians. Further, this diagnostic information will aid in the practice of antimicrobial stewardship, which is an ongoing issue especially as it pertains to the inappropriate prescription of antimicrobials for the treatment of viral infections. (McGolrick et al., 2016, p. 8)

8. Evaluate the impact of the surveillance system

Based on comparisons with other influenza virus surveillance systems, telephone health helpline self-swabbing surveillance "has significant potential as an adjunct tool for the surveillance of influenza viruses in Ontario" (McGolrick et al., 2016, p. 1).

Key points from evidence

For a description of evidence levels, visit: **Introduction**: Overview of evidence-based practice and related topics.

1. Surveillance as a nursing intervention

Surveillance is an intervention in nursing classification systems and nursing literature:

- Nursing Interventions Classification (NIC)
- Nursing Minimum Data Set (NMDS)
- Omaha System
- Public Health Intervention Wheel
- Public health surge events and bioterrorism preparedness
- Infection control practices in disaster management

Level 3 sources:

- Akins, Williams, Silenas, & Edwards, 2005
- Monsen et al., 2013
- Polivka et al., 2008

Level 5 sources:

- Schoneman, 2002
- Vane, Winthrop, & Martinez, 2010

2. Types of surveillance

Surveillance systems are passive, active, sentinel, or special.

- **Passive**: Health care providers send case reports to the local health department.
- **Active**: The PHN or other health department employee searches for cases by contacting local health care providers and agencies.
- **Sentinel**: Trends in commonly occurring diseases and health problems are monitored.
- **Special**: A system to collect specific information is established; for example, determining links between disease agents and terrorist attacks.

Level 5 source:

- Stanhope & Lancaster, 2016

3. Criteria for surveillance

Criteria for identifying high-priority health events for surveillance include:

- Frequency of event: Incidence, prevalence, mortality
- Severity of event: Case fatality ratio, hospitalization rate, disability rate, years of potential life years lost
- Cost
- Preventability
- Communicability
- Public interest

Level 5 source:

- Lee et al., 2010

4. Characteristics of surveillance

Characteristics of effective surveillance:

- Acceptability
- Flexibility
- Positive predictive value (proportion of true cases)
- Quality
- Representativeness
- Sensitivity
- Simplicity
- Stability
- Timeliness
- Validity (measuring what is supposed to be measured)

Level 5 source:

- Centers for Disease Control and Prevention, 2012

5. Surveillance in conjunction with other systems

Surveillance is most effective when done in conjunction with other systems in the community. Advantages:

- Access to other data sets
- The potential to design coordinated data collection systems among the partners from the start of a process

- The potential for shared technological capacity
- The opportunity for discussion with collaborators about measures or indicators to collect

Level 5 sources:

- Baisch, 2012
- Friedman & Parrish, 2010
- Oliver, 2010

6. Surveillance examples from the literature

There are many examples of public health surveillance systems in the literature and their use to identify public health interventions:

- The District of Columbia Department of Health Environmental Public Health Tracking Network used climate change and health data to assess vulnerabilities and disease burden associated with heat, air quality, and hospitalizations for asthma and acute myocardial infarction.
- The Omaha System, which collects clinical data, identified unmet needs in six problem areas for the children with special needs population, demonstrating feasibility for use in program evaluation, case management, and surveillance.
- Local health departments used telephone-based surveillance to identify cases of disease.
- An analysis of electronic health records contributed to estimating childhood obesity rates and highlighting the need for early intervention for at-risk children.
- A web-based surveillance system for hepatitis C increased the timeliness of reporting.
- Immunization registries, confidential population-based information systems that contain information about immunizations of a population in a geographic area, can be used to support clinical decision-making and improve the quality of care.
- The effect of alcohol sales restrictions in convenience stores on intentional injury-related ambulance pickups for 15- to 24-year-olds was analyzed through geographic information system (GIS) spatial analysis of data from the U.S. Census Bureau and community emergency medical services.
- The rate of participating schools increased in a statewide school-based asthma surveillance program (using student health records) over a five-year period, providing a clear picture of pediatric asthma across the state.

Level 2 sources:

- Heisey-Grove, Church, Haney, & DeMaria, Jr., 2011
- Masho, Bishop, Edmonds, & Farrell, 2014

Level 3 sources:

- Anderko, Davies-Cole, & Strunk, 2014
- Dausey et al., 2008
- Flood et al., 2015
- Medaglia, Knorr, Condon, & Charleston, 2013
- Monsen et al., 2013

Level 5 sources:

- Baisch, 2012
- Hinman & Ross, 2010

7. Web-based surveillance advantages and disadvantages

Emerging web-based surveillance systems have advantages and disadvantages:

- They are intuitive, adaptable, low-cost, and operate in real time.
- There is the possibility of inaccurate interpretation and prediction of health status, stemming from an individual's internet activity.
- There may be privacy issues.

Level 3 sources:

- Choi, Cho, Shim, & Woo, 2016
- Klingler, 2017

8. Using surveillance for influenza

Influenza surveillance using telephone triage and electronic syndromic surveillance (near real-time data collection) in the Department of Veterans Affairs correlated strongly with Centers for Disease Control and Prevention data for weekly influenza hospitalizations, influenza tests performed, and positive influenza tests. Nurses used protocols and clinical software to systematically assess clients' chief complaints, symptoms, and medical history.

Level 3 source:

- Lucero-Obusan, Winston, Schirmer, Oda, & Holodniy, 2017

9. Developments in surveillance

Developments in population health surveillance initiatives include:

- Mental health measures are now included in national level surveillance surveys. Collecting data on resilience, coping skills, protective factors, cultural factors, and positive mental health aspects provides information for disease prevention and mental health promotion strategies. Challenges to surveillance of mental health include variable and non-specific measures, differences in time periods, variability in including substance abuse, and different methods of data collection.
- The population health record documents health status and influences on health for a defined population. In addition to monitoring population health status and outcomes, other uses include conducting community health assessments, identifying population health disparities, and designing public health interventions, programs, and policies.
- Social media was used to conduct participatory surveillance of diabetes device safety. Surveys collected information on participants' experience with blood glucose monitors, continuous glucose monitors, and insulin delivery devices.
- Population health rankings based on current health outcome data (e.g., premature death, self-reported health, birth outcomes, clinical care, and health behaviors) are used for community assessment, setting agendas to improve health

outcomes, and establishing a broader responsibility for population health through multi-sectoral collaboration.

▪ A narrative review found 23 articles on the use of electronic health records for population health surveillance. Challenges included incomplete population coverage, inability to link data systems, and variations in data quality.

Level 3 sources:

▪ Mandl et al., 2014
▪ Rohan, Booske, & Remington, 2009

Level 5 sources:

▪ Freeman et al., 2010
▪ Friedman & Parrish, 2010
▪ Oliver, 2010
▪ Paul et al., 2015

10. Increasing data accuracy and usefulness with surveys

Strategies for increasing the accuracy and usefulness of data on health behaviors obtained from surveys:

▪ Conduct pilot surveys before full implementation.
▪ Put systems in place for quality assurance and control.
▪ For nonresponse, consider incentives and pre-notification.
▪ For better coverage of a population, consider multimode collection.
▪ For better coverage of younger age groups, consider use of cellular telephones.
▪ For language barriers, employ bilingual interviewers.
▪ With limited space for questions, consider rotating surveys.
▪ For reducing cost, consider multimode data collection, e.g., internet-based surveys with a smaller number of household surveys.

Level 5 source:

▪ Mokdad & Remington, 2010

Wheel notes

Epidemiology

Public health nurses use the science of epidemiology to conduct surveillance.

Epidemiology is:

> [The] study of the occurrence and distribution of health-related states or events in specified populations, including the study of the determinants influencing such states, and the application of this knowledge to control the health problems (Porta, 2008, p. 120).

Public health nurses use epidemiological theory to find answers and solutions. Epidemiology as a systematic process guides the search for contributing factors, data collection, and monitoring of health and illness events (Frayham & Anderko, 2009; Schoon, Porta, & Schaffer, 2018).

Innovations

Geographic information systems (GIS) increase the capacity for data collection in surveillance. GIS refers to computer-based tools that store, visualize, analyze, and interpret geographic data. Using GIS helps answer data-related questions (Centers for Disease Control and Prevention, 2016). For example, using GIS to examine preterm birth rates in specific census tracks in Philadelphia, PHNs analyzed the data to better understand the environments of mothers and families and identify interventions for geographical areas with the highest risk for preterm birth (Block, 2011). The Centers for Disease Control and Prevention (CDC) offers data sets and training modules for using and interpreting GIS generated data: GIS and Public Health at CDC (Centers for Disease Control and Prevention, 2016).

PHNs increasingly use electronic health records for surveillance. Electronic health records needs to be compatible with other systems (across health departments and other health systems) in order to aggregate data. The Public Health Data Standards Consortium (2019) established recommendations for collecting data through electronic health records.

Resources

The Centers for Disease Control and Prevention established the Surveillance Resource Center, which provides access to information and tools for conducting surveillance: interactive database systems; methods; legal, ethical, and policy issues; and tools and templates. A few examples:

- Asthma: Data, statistics, and surveillance: Asthma surveillance data
- Behavioral Risk Factor Surveillance System
- Foodborne Diseases Active Surveillance Network (FoodNet)
- National Environmental Public Health Tracking Network
- Breastfeeding: Maternity care practices: CDC mPINC (Maternity Practices in Infant Nutrition and Care) Survey
- Adolescent and school health: SHPPS (the School Health Policies and Practices Study)
- Tuberculosis: Data and statistics

References

Akins, R. B, Williams, J. R., Silenas, R., & Edwards, J. C. (2005). The role of public health nurses in bioterrorism preparedness. *Disaster Management and Response, 3*(4), 98-105.

Anderko, L. Davies-Cole, J., & Strunk, A. (2014). Identifying populations at risk: Interdisciplinary environmental climate change tracking. *Public Health Nursing, 31*(6), 484-491. doi: 10.1111/phn.12164

Baisch, M. J. (2012). A systematic method to document population-level nursing interventions. *Public Health Nursing, 29*(4), 352-360. doi: 10.1111/j.1525-1446.2012.01008.x

Block, J. R. (2011). Using geographical information systems to explore disparities in preterm birth rates among foreign-born and U.S.-born black mothers. *Journal of Obstetric, Gynecologic, and Neonatal Nursing, 40*, 544-554. doi: 10.1111/j.1553-6909.2011.01273.x

Centers for Disease Control and Prevention. (2012). *Lesson 5: Public health surveillance. Appendix A. Characteristics of Well-Conducted Surveillance*. Retrieved https://www.cdc.gov/ophss/csels/dsepd/ss1978/lesson5/appendixa.html

Centers for Disease Control and Prevention. (2016). *GIS and public health at CDC*. Retrieved from https://www.cdc.gov/gis/index.htm

Centers for Disease Control and Prevention. (2018). *2017-2018 Influenza Season Week 7 ending February 17, 2018*. Retrieved from https://www.cdc.gov/flu/weekly/

Choi, J., Cho, Y, Shim, E., & Woo, H. (2016). Web-based infectious disease surveillance systems and public health perspectives: A systematic review. *BMC Public Health, 16*, 1-10. doi: 10.1186/s12889-016-3893-0

Dausey, D. J., Chandra, A., Schaefer, A. G., Bahney, B., Haviland, A., Zakowski, S., et al. (2008). Measuring the performance of telephone-based disease surveillance systems in local health departments. *American Journal of Public Health, 98*(9), 1706-1711.

Earl, C. E. (2009). Medical history and epidemiology: Their contribution to the development of public health nursing. *Nursing Outlook, 57*(5), 257-265. doi: 10/1016/j.outlook.2009.04.003

Flood, T. L., Zhao, Y., Tomayko, E. J., Tandias, A., Carrel, A. L., & Hanrahan, L. P. (2015). *American Journal of Preventive Medicine, 48*(2), 234-240. doi.org/10.1016/j.amepre.2014.10.020

Frayham, E. S. & Anderko, L. (2009). Applied epidemiology for public health and community-based nurses. *The Journal of Continuing Education in Nursing, 40*(8), 361-366. doi: 10.3928/00220124-20090723-05

Freeman, E. J., Colpe, L. J., Strine, T. W., Dhingra, S., McGuire, L. C., Elam-Evens, L. D., et al. (2010). Public health surveillance for mental health. *Preventing Chronic Disease: Public Health Practice, Research, and Policy, 7*(1), 1-7. Retrieved http://www.cdc.gov/pcd/issues/2010/jan/09_0126.htm

Friedman, D. J. & Parrish, R. B. (2010). The population health record: concepts, definition, design, and implementation. *Journal of the American Medical Informatics Association, 17*, 359-366. doi: 10.1136/jamia.2009.001578

Hopkins, R. S. (2005). Design and operation of state and local infectious disease surveillance systems. *Journal of Public Health Management Practice, 11*(3), 184-190.

Heisey-Grove, D. M., Church, D. R., Haney, G. A., & DeMaria, Jr., A. (2011). Enhancing surveillance for hepatitis C through public health informatics. *Public Health Reports, 126*(1), 13-18.

Hinman, A. R. & Ross, D. A. (2010). Immunization registries can be building blocks for national health information systems. *Health Affairs, 29*(4), 676-682. doi: 10.1377/hlthaff.2007.0594

Klingler, C., Silva, D. S., Schuermann, C., Reis, A. A., Saxena, A., & Strech, D. (2017). Ethical issues in public health surveillance: A systematic qualitative review. *BMC Public Health, 17*, 1-13. doi 10.1186/s12889-017-4200-4

Lee, L. M., Teutsch, S. M., Thacker, S. B., & St. Louis, M. E. (2010). *Principles and practice of public health surveillance (3rd Ed.)*. New York: Oxford University Press.

Lee, T. B., Montgomery, O. G., Marx, J., Olmsted, R. N., & Scheckler, W. E. (2007). Recommended practices for surveillance: Association for Professionals in Infection Control and Epidemiology (APIC), Inc. *American Journal of Infection Control, 35*(7) 427-440. doi: 10.1016/j.ajic.2007.07.002

Lucero-Obusan, C., Winston, C. A., Schirmer, P. L., Oda, G., & Holodniy, M. (2017). Enhanced influenza surveillance using telephone triage and electronic syndromic surveillance in the Department of Veterans Affairs, 2011-2015. *Public Health Reports, 132*(Supplement 1) 16S-22S. doi: 10.1177/0033354917709779

Mandl, K. D., McNabb, M., Marks, N., Weitzman, E. R., Kelemen, S., Egglesten, E. M., et al. (2014). Participatory surveillance of diabetes device safety: A social media-based complement to traditional FDA reporting. *Journal of the American Medical Informatics Association, 21*(4), 687-691. doi: 10.1136/amiajnl-2013-002127

Masho, S. W., Bishop, D. L., Edmonds, T., & Farrell, A. D. (2014). Using surveillance data to inform community action: The effect of alcohol sale restrictions on intentional injury-related ambulance pickups. *Prevention Science, 15*(1), 22–30. doi: 10.1007/ -0373-y s11121-013

McGolrick, D., Belanger, P., Richardson, H., Moore, K., Maier, A., & Majury, A. (2016). Evaluation of self-swabbing coupled with a telephone health helpline ad an adjunct tool for surveillance of influenza viruses in Ontario. *BMC Public Health, 16*, 1-9. doi: 10.1186/s12889-016-3674-9

Medaglia, F., Knorr, R. S., Condon, S. K., & Charleston, A. C. (2013). School-based pediatric asthma surveillance in Massachusetts from 2005 to 2009. *Journal of School Health, 83*(12), 907-914.

Merrill, R. M. (2017). *Introduction to epidemiology*. Burlington, MA: Jones & Bartlett Learning.

Mokdad, A. H. & Remington, P. L. (2010). Measuring health behaviors in populations. *Preventing Chronic Disease: Public Health Research, Practice, and Policy, 7*(4), 1-8. Retrieved from http//www.cdc.gov/pcd/issues/2010/jul?10_0010.htm

Monsen, K. A., Elsbernd, S. A., Barhart, L. Stock, J., Prock, C. E., Looman, W. S., et al. (2013). A statewide case management, surveillance, and outcome evaluation system for children with special health care needs. *ISRN Nursing*, Article ID 793936, 1-7. http://dx.doi.org/10.1155/2013/793936

Oliver, T. R. (2010). Population health rankings as policy indicators and performance measures. *Preventing Chronic Disease: Public Health Research, Practice, and Policy, 7*(5), 1-7. Retrieved http://www.cdc.gov/pcd/issues/2010/sep/10_0040.htm

Paul, M. M., Greene, C. M., Newton-Dame, R., Thorpe, L. E., Perlman, S. E., McVeigh, K. H., et al. (2015). The state of population health surveillance using electronic health records: A narrative review. *Population Health Management, 18*(3), 209-216. doi: 10.1089/pop.2014.0093

Polivka, B. J., Stanley, S. A. R., Gordon, D., Taulbee, K., Kieffer, G., & McCorkle, S. M. (2008). Public health nursing competencies for public health surge events. *Public Health Nursing, 25*(2), 159-165. doi: 10.1111/j.1525-1446.2008.00692.x

Porta, M. (2008). *Dictionary of epidemiology*. New York: Oxford University Press.

Public Health Data Standards Consortium. (2019). *Promoting standards through partnerships*. Retrieved from http://www.phdsc.org/

Rohan, A. M. K., Booske, B. C., & Remington, P. L. (2009). Using the Wisconsin County Health Rankings to catalyze community health improvement. *Journal of Public Health Management and Practice, 15*(1), 24-32.

Schoneman, D. (2002). The intervention of surveillance across classification systems. International *Journal of Nursing Technologies and Classifications, 13*(4), 137-147.

Schoon, P. M., Porta, C. M., & Schaffer, M. A. (2019). *Population-based public health clinical manual: The Henry Street model for nurses, 3rd ed*. Indianapolis, IN: Sigma Theta Tau International Society of Nursing.

Stanhope, M. & Lancaster, J. (2016). *Public health nursing: Population-centered care in the community*. St. Louis, MO: Elsevier.

Vane, E. A. P., Winthrop, T. G., & Martinez, L. M. (2010). Implementing basic infection control procedures in disaster management. *Nursing Clinics of North America, 49*(2), 219-231.

World Health Organization. (2018). *Public health surveillance*. Retrieved http://www.who.int/immunization/monitoring_surveillance/burden/vpd/en/
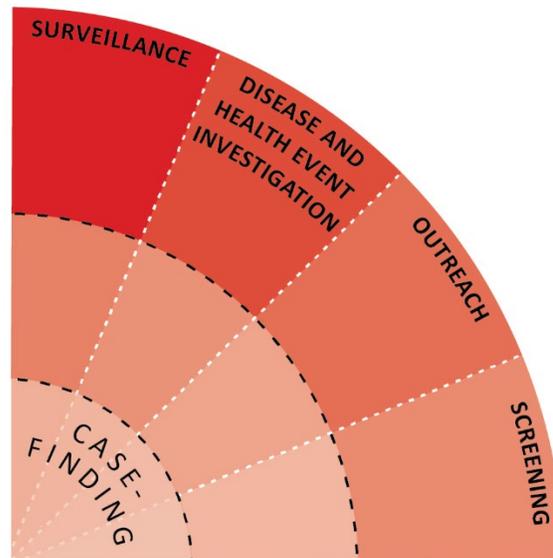
Disease and health event investigation

Disease and health event investigation systematically gathers and analyzes data regarding threats to the health of populations, ascertains the source of the threat, identifies cases and others at risk, and determines control measures.

Examples of "threats to health" include actual or potential acts of bioterrorism and chemical or other hazardous waste spills. Natural disasters such as tornadoes, floods, hurricanes, earthquakes, and extreme heat or cold inherently create opportunities for disease and health event investigation. While investigation traditionally focuses on contagious diseases, it also focuses on chronic diseases, injury, and other health events.

The investigative process consists of identifying and verifying the source of the threat; identifying cases, their contacts, and others at risk; determining control measures; and communicating with the public as needed. Not all health events are preventable. Natural disasters cannot be prevented, but planned public health responses can reduce the severity of their impact via preventive measures that mitigate or reduce the severity of effects.

Practice-level examples

Population of interest: Women of childbearing age and their partners living or traveling in tropical climates.

Problem: The Zika virus is transmitted to people through a bite from an infected mosquito (Aedes genus) in tropic and sub-tropic geographical areas. The virus can be transmitted person to person via sexual intercourse, perinatal transfer, and blood transfusion. Congenital Zika is associated with brain abnormalities, including microcephaly (Karwowski et al., 2016).

Systems level

The National Association of County and City Health Officials (2018a) conducted a survey on maternal child health capacity to respond to the Zika virus. Local health departments in ten priority states (Alabama, Arizona, California, Florida, Georgia, Hawaii, Louisiana, Mississippi, New York, and Texas) participated in the survey. Local health departments provided the following prevention and response actions: information to travelers (94 percent), outreach and communication to clinicians (90 percent), lab testing (83 percent), maternal child health surveillance (72 percent), and rapid detection and follow-up of birth defects (47 percent). The lab results provided a picture of the burden of disease (total effect of a disease on a community) useful for planning an adequate response.

Community level

A local health department aimed to communicate the risk of transmission of the disease from mosquitoes and recommended mosquito control strategies. The local health department gathered information from the Centers for Disease Control and Prevention (CDC, 2018) and communicated information with other providers in the community to create public awareness about transmission of disease from mosquitoes. The local health department shared information concerning mosquito surveillance; removing areas of stagnant water where mosquitoes lay eggs; control of larvae, pupae and adult mosquitoes; and many resources that provide instructions on mosquito control strategies.

Individual/family level (case-finding)

When providing services to women of childbearing age, public health nurses (PHNs) inquire about symptoms of infection in women and their partners and history of travel or residence in environments with infected mosquitoes present. Recommending testing for Zika infection contributes to identifying and reporting possible outbreaks, which can lead to implementing control measures.

Relationship with other interventions

Disease and health event investigation is frequently paired with surveillance; these two interventions are often discussed as a single process. However, investigation stands alone when broadly applied as data gathering or "fact-finding" methodology. Surveillance looks ahead for expected events; investigation responds to an unexpected event. Investigation frequently leads to **case-finding** and **referral and follow-up**.

Basic steps

The following steps are adapted from several sources (Bisen & Raghuvanshi, 2013; Centers for Disease Control and Prevention, 2015; Stanhope, 2016):

1. Identify investigation team and resources

All information and activities related to the investigation need to go through the investigation team to reduce any confusion about responsibilities.

- Investigating teams should be sent as early as possible to the area where the disease or health threat is reported. Several factors determine the size and composition of the investigating team, including the size of the affected area, terrain and accessibility, and population density.
- Local health departments and state health departments may have staff who have expertise in investigation of specific outbreaks of disease or other health events (e.g., communicable disease, chronic disease, injuries). Public health nurses may serve on the team if the investigation goal is consistent with their role and responsibilities.
- Public health nurses also may be on the front lines in their interactions with individuals and communities where early signs of a disease or other health event occurs.

2. Confirm the existence of the disease or threat

Before expending resources on investigating the disease or health threat, verify the initial report.

Information about the disease or health threat can be obtained from active, passive, sentinel, and special surveillance reports (see: Surveillance: Key points from evidence: 2. Types of surveillance); reports from health facilities; media reports; and reports originating from the community. Information should be collected from all possible sources and verified.

3. Verify the diagnosis/define a case

Defining what constitutes a case makes it possible to obtain numerical data about the extent of the disease or health threat.

"A case is a person in a population who has been identified as having a particular disease, disorder, injury, or condition" (Merrill, 2017, p. 7). A case may be categorized as suspect, probable, or confirmed. A case may need to be confirmed by laboratory testing of blood or other body fluid.

A case definition identifies:

- Illness features or condition characteristics
- Agent if known
- Typical symptoms for illness or condition
- Time range of illness or condition
- Geographic range
- Other criteria specific to agent, e.g., DNA fingerprint of pathogen

4. Estimate the number of cases

Estimate of the number of cases in a population to inform response plan.

Cases are generally reported as a percentage or proportion of the population. The following terms are used to describe the occurrence of disease or health problems in a population and are reported as rates (e.g., number of cases per 10,000 people).

- **Incidence**: Number of new cases in a population in a given period of time
- **Prevalence**: "Proportion of a population who have a specific characteristic in a given time period" (National Institutes of Mental Health, 2017)
- **Mortality**: Number of deaths in a population
- **Morbidity**: Number of people ill in a population

5. Collect data including persons, place, time, lab results, and relevant records or reports

Collecting specific data determines the "who, what, when, and where" of the disease or health threat.

Using a specific data collection form organizes data from laboratory reports, medical records, client charts, and information provided by health providers, agencies, and others in the community. Possible relevant variables for data collection are age, sex, underlying disease, geographical location, and possible exposure sites. Additional data collection strategies may include direct observation, interviewing cases, performing physical assessment, and collecting specimens.

Questions to ask include:

Person

- Who and how many are affected?
- Who else might be affected?
- Is there a connection between the people affected and their age, sex, race, and socioeconomic status?

Place

- Does it matter where people live or work?
- Are the cases limited to a certain area or widely dispersed?
- Does the area naturally harbor certain disease agents?

Time

- Does the time of day or association with a specific event, such as weather conditions, appear to make a difference?

6. Develop and evaluate a hypothesis

A hypothesis explains the why and how disease or heath events occur and guides the investigation.

- Formulate a working hypothesis based on signs and symptoms of the disease or health event. The hypothesis may be modified as the investigation reveals further details about transmission or development of the disease or health event.
- Test the working hypothesis through data analysis, using statistics. Two examples of data analysis are spot maps and the epidemic curve. A spot map identifies the geographic locations of people who have the disease, health problem, or characteristic. An epidemic curve illustrates in graph form how cases are distributed by time of onset, revealing any time clusters in the epidemic.
- When a large proportion of a population or community is affected at the same time by the same disease or health event, it is called an epidemic. For example, an increase in mortality from opioid use in the late 2010s (referred to as an opioid crisis) is considered an epidemic.
- Consider the accuracy of the conclusion resulting from the data. Strategies to improve data accuracy:
  - Comparing reports from previous similar investigation
  - Collaboration with others involved in the investigation
  - Sharing and comparing data
  - Collecting secondary data (reviewing data collected by others) to confirm suspicion/conclusion

7. Institute control measures and communicate findings

Control measures reduce incidence and negative effects of disease and health events. Disseminate evidence of effective strategies to prevent and/or reduce development of disease and negative health events.

- Assure that identified cases receive needed treatment, implement measures for prophylaxis if effective, and provide education to identified cases and persons with known exposure.
- Systems may institute control measures (health care agencies; city, state, and federal government; public health departments). Epidemiological evidence on the origin, spread, and development of the disease or health event determines the use of control measures.

- Instituting control measures often involves collaborating across organizations and systems, including industry and business. For example, during a foodborne disease outbreak, control measures may include recalls and facility improvements.
- Consider all levels of prevention needed to reduce the incidence and prevalence of the disease or health threat: primary prevention (before the problem occurs), secondary prevention (treatment very early in the problem), and tertiary prevention (treatment and rehabilitation for consequences of disease or health event). Provide referral and follow-up for anyone in need of treatment.
- Communicating findings occurs through many modalities (e.g., official reports, media, internet, public service announcements). When crafting communication, create messages that motivate behavior change for reducing risk transmission/development of the disease or health event but avoid language leading to fear or panic.

8. Maintain surveillance

Capture the continuing trajectory of the disease or health event to inform continued decision making about strategies and policies.

- The epidemic curve indicates the decline of the disease or health event. When an outbreak appears to be over, public health officials continue surveillance for a period to make sure additional cases do not occur.
- For many health events (e.g., injuries, gun violence, teen pregnancy, cardiovascular disease, cancer, diabetes, and others), surveillance remains ongoing to determine trends and whether control strategies have been effective.
- Evaluating effectiveness of the investigation includes determining the elimination or prevention of the problem or risk, resources required, areas for improving efficiency, and lessons learned for future investigations.

Example

A public health nursing supervisor of the maternal child health program in a local health department joins a team assigned to follow up reports from a local hospital on several cases that test positive for the Zika virus.

1. Identify investigation team and resources

The hospital asks the PHN to join the team because of her expertise with a public health program that served pregnant women in the community. Others on the team include an epidemiologist, a communications specialist, and a clerical staff member.

2. Confirm the existence of the disease or threat

The team first needs to identify whether other cases had occurred in nearby communities. The team consults with CDC on the most recent information available on the spread of the Zika viruses.

3. Verify the diagnosis/define a case

A positive lab test identifies a Zika case.

4. Estimate the number of cases

Estimates depend on location and presence of infected mosquitoes. The team must also consider travel from areas known to have Zika virus infections.

5. Collect data including persons, place, time, lab results, and relevant records or reports

The team uses a data collection form to record specific information needed for disease investigation. It reviews medical records, and records lab results, age, sex, symptoms, geographic location (work and home), travel history, and sex partners.

6. Develop and evaluate a hypothesis

The team uses its expertise to create a spot map to identify the geographic locations of people identified as cases and possible transmission patterns.

7. Institute control measures and communicate findings

The team communicates findings to relevant government entities to initiate mosquito control measures, and communicates to the public ways to reduce risk of exposure to the Zika virus. The team also educates cases about potential for sexual transmission of virus, and initiates follow-up of pregnant women diagnosed with the Zika virus or who have partners infected with the Zika virus to monitor pregnancy for possible birth defects.

8. Maintain surveillance

The team continues to evaluate incidence of Zika infections and whether Zika infection rates are diminishing, and monitors the environment for reduction of places where mosquitoes lay eggs.

The National Association of County and City Health Officials (NACCHO) created a free modifiable document, Zika Resources for Local Health Departments (2018b), with templates, toolkits, and resources provided by CDC, local health departments and other partners for local health department adaptation in response to Zika virus infections.

Key points from evidence

For a description of evidence levels, visit: **Introduction**: Overview of evidence-based practice and related topics.

1. Considering subgroup characteristics

When conducting disease and health event investigation, it is important to consider characteristics of different subgroups in order to determine the most effective treatment and response. Examples of subgroups include race/ethnicity, age, gender, and place (urban, suburban, or rural).

Level 3 sources:

- Aponte, 2009
- Gangeness, 2009

2. Risk assessment tools

Risk assessment tools guide decision-making and actions across jurisdictions and levels of government during the investigation process. Examples include the CDC Influenza Risk Assessment Tool and the CDC Pandemic Severity Assessment Framework.

Level 4 source:

- Holloway, Rasmussen, Zaza, Cox, & Jernigan, 2014

3. Recommendations for effective investigation

Focus groups with 28 expert enteric (foodborne disease) investigators resulted in recommendations for effective investigation:

Preparation

- Understand the pathogen's epidemiology, transmission, and control measures.
- Review relevant demographic information (gender, age, residence).

Contacting cases

- Use voicemail and text messaging for specific demographic groups that do not answer the phone.

Building rapport

- Promote comfort and relief of anxiety during the interview.
- Explain the purpose of the interview and assure confidentiality.
- Allow cases to tell their story.
- Be empathetic and respectful of differences (culture, religion, language).

Identifying the source

- Educate each case about pathogen and transmission.
- Use a calendar to help the case remember dates, activities, and events close to onset of symptoms.
- Use questionnaires with common risk factors and questions to help with recall.

Education

- Provide education about identified source to prevent further illness.
- Be sensitive, neutral, and non-judgmental when educating about high-risk behaviors, sexual behavior, and cultural practices.

Excluding from specific work environments

- If exclusion is required from working in food-related, health care, or childcare settings, communicate the need for exclusion from work close to the end of the interview to avoid loss of rapport.

Linking cases

- Communicate with enteric disease investigators, public health inspectors, epidemiologists, data entry staff, and with staff in other jurisdictions to link cases.
- Use spreadsheets and other software tools, a point person in the coordinator role, and meetings of case investigators to link cases to a common source or food venue.

Level 3 source:

- Ing, Lee, Middleton, Moore, & Sider, 2014

4. Recommendations following an outbreak investigation

Following an investigation of an influenza outbreak (H_1N_1) in a First Nations community in Manitoba, Canada researchers offered these recommendations for future outbreak prevention: daily surveillance for disease detection and monitoring; an effective communication strategy; and addressing health determinants (e.g., housing conditions, potable water, and sanitation).

Level 3 source:

- Pollock, Sagan, Oakley, Fontaine, & Poffenroth, 2012

5. Measures to control outbreaks

Measures to control an outbreak of E. coli infections resulting from exposure to contaminated pork products in Canada included "product recalls, destruction of pork products, temporary food facility closures, targeted interventions to mitigate improper pork handling practices, and prosecution of a food facility operator" (p. 1480).

Level 5 source:

- Honish et al., 2014

6. Novel strategies for investigation

Novel strategies for investigation include:

- Review of restaurant reviews on Yelp by foodborne epidemiologists identified three previously unreported food outbreaks.

- Cluster survey methodology can be used for rapid assessment in humanitarian emergencies. The area under assessment is divided into 30 clusters of a minimum of 30 households. Then one household is randomly selected for interview for each of the 30 clusters.
- Disease intervention specialists used smartphone technology to enhance traditional contact investigation of sexually transmitted diseases, increasing successful partner notification and case-finding.
- DotMapper is an open source tool that quickly produces maps showing case locations and epidemiological characteristics. This tool can be used without needed training in geographic information systems.

Level 3 sources:

- Harrison et al., 2014
- Pennise, Inscho, & Herpin, 2015

Level 5 sources:

- Morris & Nguyen, 2008
- Smith & Hayward, 2016

7. Skills for outbreak investigation

Public health nurses have the skills needed for outbreak investigation: identifying an outbreak, following the investigative process, and collaborating with the community on a response.

Level 5 source:

- Sistrom & Hale, 2006

8. School nurses and student immunizations

A quality improvement project was conducted in Vermont schools to provisionally admit students without immunization documentation, aimed to reduce the number of provisionally admitted students. Strategies used by school nurses included maintaining an immunization tracking system for all students and using the Vermont Immunization Registry to locate missing immunization information for students. School nurses in participating schools reported a decline in the number of provisionally admitted students over the course of the project.

Level 5 source:

- Davis, Varni, Barry, Frankowski, & Harder, 2016

9. Efficacy of simulation

Simulation is an effective experiential strategy in teaching public health nursing students to practice outbreak investigation skills.

Level 3 source:

- Alexander, Canclini, Fripp, & Fripp, 2017

Wheel notes

Public health nurses identify health concerns that need disease and health event investigation

Public health nurses may notice an increase in disease and other health events as they interact with clients in communities. Public health nurses may alert the state or county epidemiologist about the need for investigation and, in some agencies, PHNs may also have a role on the investigative team. Public health nurses possess skills that contribute to disease and health investigation initiatives, including their ability to build rapport with clients, view clients holistically, and gain client trust for obtaining relevant information.

Some examples of disease and health event investigation that PHNs may encounter in their practice:

- Cancer
- Communicable diseases, e.g., tuberculosis, meningitis, giardia
- Exposure to hazards and toxins in the environment
- Foodborne and waterborne outbreaks
- Garbage houses
- Lead
- Lice and scabies
- Maltreatment of vulnerable individuals
- Natural disasters, e.g., flooding, hurricanes, tornadoes
- Rabies
- Sexually transmitted infection, e.g., gonorrhea, chlamydia, syphilis
- Suicide
- Vaccine-preventable disease, e.g., measles, pertussis

Non-infectious diseases and other health events

Although much of the literature that addresses disease and health event investigation focuses on outbreaks of infectious disease, public health experts are also called on to investigate increases in incidence of other threats to health. One example is investigation of cancer clusters. A cancer cluster occurs when more cancer cases than expected occur in a group of people in a geographic area over a specific time. CDC offers guidelines for investigating clusters of health events (Abrams, Anderson, & Blackmore, 2013). The increasing incidence of gun violence is another example of a health threat (Kennedy, 2016). A public health approach seeks to identify individuals and communities at risk for gun violence, determine contributing factors, and design strategies that reverse the normalization of gun violence (Butts, Roman, Bostwick, & Porter, 2015).

## Using disease and health event investigation to resolve local health concerns

Implementing an investigation does not require a large and complex system if the problem is not large and complex. For instance, in investigating why certain clients

consistently missed clinic appointments, a PHN discovered that most of the clients had addresses in the same neighborhood. With a little more investigation, the PHN connected their missed appointments with the lack of availability of public transportation. This connection led to a different conclusion than "willful noncompliance," and a different resolution to the problem.

References

Abrams, B., Anderson, H., & Blackmore, C. (2013). Investigating suspected cancer clusters and responding to community Concerns: Guidelines from CDC and the Council of State and Territorial Epidemiologists. *Morbidity and Mortality Weekly Report, 62*(8), 1-26.

Alexander, G. K., Canclini, S. B., Fripp, J., & Fripp, W. (2017). Waterborne Disease Case Investigation: Public Health Nursing Simulation. *Journal of Nursing Education, 56*(1), 39-42. doi: 10.3928/01484834-20161219-08

Aponte, J. (2009). Diabetes-related risk factors across Hispanic subgroups in the Hispanic health and nutritional examination survey (1982–1984). *Public Health Nursing, 26*(1), 23-38. doi: 10.1111/j.1525-1446.2008.00741.x

Butts, J. A., Roman, C. G., Bostwick, L., & Porter, J. R. (2015). Cure violence: A public health model to reduce gun violence. *Annual Review of Public Health, 36*, 39-53. doi: 10.1146/annurev-publhealth-031914-122509

Bisen, P. S. & Raghuvanshi, R. (2013). *Emerging epidemics: Management and control*. New Jersey: John Wiley & Sons, Inc.

Centers for Disease Control and Prevention (2015). *Multistate and Nationwide Foodborne Outbreak Investigations: A step-by-step guide*. Retrieved from https://www.cdc.gov/foodsafety/outbreaks/investigating-outbreaks/investigations/index.html

Centers for Disease Control and Prevention (2018). *Integrated mosquito management*. Retrieved from https://www.cdc.gov/zika/vector/integrated_mosquito_management.html

Davis, W. S., Varni, S. E., Barry, S. E., Frankowski, B. L., & Harder, V. S. (2016). Increasing immunization compliance by reducing provisional admittance. *The Journal of School Nursing, 32*(4), 246-257. doi: 10.1177/1059840515622528

Gangeness, J. E. (2009). Rural women's perceptions of availability, development, and maintenance of rural built environments. *Online Journal of Rural Nursing and Health Care, 9*(2), 52-66.

Harrison, C., Jorder, M., Stern, H., Stavinsky, F., Reddy, V., Hanson, H., et al. (2014). Using online reviews by restaurant patrons to identify unreported cases of foodborne illness—New Yoark City, 2012-2013. *Morbidity and Mortality Weekly Report, 63*(20), 441-445.

Holloway, R., Rasmussen, S. A., Zaza, S., Cox, N. J., & Jernigan, D. B. (2014). Updated preparedness and response framework for influenza pandemics. *Morbidity and Mortality Weekly Report, 63*(RR06), 1-9.

Honish, L., Pumnja, N., Nunn, S., Nelson, D., Hislop, N., Gosselin, G., et al. (2014). Escherichia coli O157:H7 infections associated with contaminated pork products - Alberta, Canada, July-October 2014. (2017). *Morbidity and Mortality Weekly Report, 65*(52), 1477-1481.

Ing, S., Lee, C., Middleton, D., Moore, S., & Sider, D. (2014). A focus group study of enteric disease case investigation: successful techniques utilized and barriers experienced from the perspective of expert disease investigators. *BMC Public Health, 14*, doi: 10.1186/1471-2458-14-1302

Karwowski, M. P., Nelson, J. M., Staples, J. E., Fischer, M., Fleming-Dutra, K. M., Villanueva, J. E., et al. (2016). Zika Virus Disease: A CDC Update for Pediatric Health Care Providers. *Pediatrics, 137*(5).

Kennedy, M. S. (2016). Gun violence as a public health problem: When will our outrage lead to action? *American Journal of Nursing, 116*(2), 7.

Merrill, R. M. (2017). *Introduction to epidemiology*. Burlington, MA: Jones & Bartlett Learning.

Morris, S. K. & Nguyen, C. K. (2008). A review of the cluster survey sampling method in humanitarian emergencies. *Public Health nursing, 25*(4), 370-374. doi: 10.111/j.1525-1146.2008.00719.x

National Association of County and City Health Officials (NACCHO). (2018a). *Maternal child health capacity for Zika response*. Retrieved from https://www.naccho.org/uploads/downloadable-resources/FINAL-MCH-Zika-Report.pdf

National Association of County and City Health Officials (NACCHO). (2018b). *Zika resources for local health departments*. Retrieved from http://eweb.naccho.org/eweb/DynamicPage.aspx?Site=naccho&WebKey=504423cd-4faf-4204-82f7-c9eb659af65c

National Institutes of Mental Health. (2017). *What is prevalence?* Retrieved from https://www.nimh.nih.gov/health/statistics/what-is-prevalence.shtml

Pennise, M., Inscho, R., & Herpin, M. (2015). Using smartphone apps in STD interviews to find sexual partners. *Public Health Reports, 30*, 245-252.

Pollock, S. L., Sagan, M., Oakley, L., Fontaine, J., & Poffenroth, L. (2012). Investigation of a pandemic H1N1 influenza outbreak in a remote First Nations community in Northern Manitoba, 2009. *Canadian Journal of Public Health, 103*(2), 90-93.

Sistrom, M. G. & Hale, P. J. (2006). Outbreak investigations: Community participation and role of community and public health nurses. *Public Health Nursing, 23*(3), 256-263.

Smith, C. M. & Hayward, A. C. (2016). DotMapper: An open source tool for creating interactive disease point maps. *BMC Infectious Diseases, 16*, 1-6. doi: 10.1186/s12879-016-1475-5

Stanhope, M. & Lancaster, J. (2016). *Public health nursing: Population-centered care in the community*. St. Louis, MO: Elsevier.
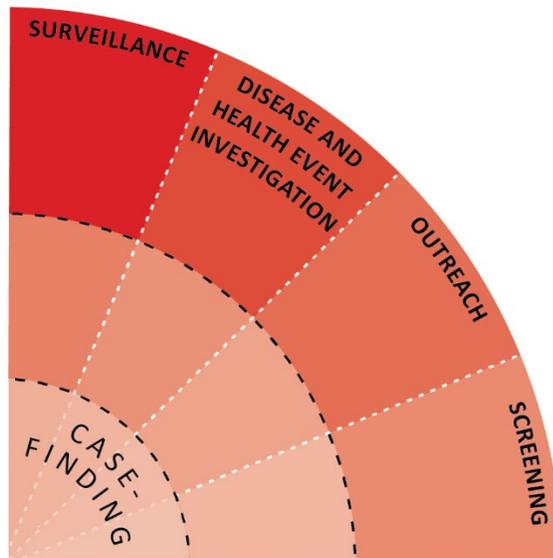
Outreach

Outreach locates populations of interest or populations at risk and provides information about the nature of the concern, what can be done about it, and how to obtain services.

Outreach activities may be directed at whole communities, targeted populations within those communities, and/or systems that affect the community's health. Outreach includes risk communication; outreach success occurs when those considered at risk receive the information and act on it.

Practice-level examples

Population of interest: 15- to 24-year-olds.

Problem: Individuals age 15 to 24 years old account for half the burden of Chlamydia trachomatis (CT) and Neisseria gonorrhea (NG) infections among reported sexually transmitted infections (STIs), although they represent 27 percent of the sexually active population. CT and NG can be asymptomatic, and untreated infections can lead

to serious long-term health consequences (pelvic inflammatory disease, infertility, blood and joint infections, transmission of HIV infection). In a focus group study in Omaha, barriers to screening included confidentiality to seeking testing, fear of being judged, and not knowing testing site locations (Delair et al., 2016).

Systems level

A public health nurse (PHN) at the Minnesota Department of Health (MDH) collaborated with professionals around the state to create the Minnesota Chlamydia Partnership (Minnesota Department of Health, 2018). The Partnership works to develop public and professional awareness about the rising incidence of chlamydia. One outcome of the work is information for health professionals posted on the MDH website.

Community level

The Douglas County Health Department in Omaha offers a hard-to-reach population (youth ages 15 to 24 years old) a community-based screening program for CT and NG in public libraries. A trained county health department STI specialist is posted at library branches at specific times to obtain urine samples from interested library patrons. "The library STI screening program effectively reaches a younger, asymptomatic, and predominantly Black population compared to a traditional health department clinic site" (Delair et al., 2016, p. 289).

Individual/family level (case-finding)

A rural "street nurse" in British Columbia provided outreach to a marginalized population. Services offered include testing for STIs, chlamydia treatment, pregnancy testing, emergency contraception, and help completing forms for financial support. Settings included schools, a drop-in center, a mall, a youth center, and "the street." The street nurse collaborated with other PHNs, health care providers, mental health workers, and social workers in making and receiving referrals (Self & Peters, 2005).

Relationship with other interventions

At the community practice level, outreach often operates simultaneously with **social marketing**. Use of social marketing principles results in an effective outreach message. A broadly focused social marketing intervention to raise a community's awareness about HIV/AIDS, for instance, can be paired with an outreach intervention designed specifically for those at high-risk, such as IV-drug users or men engaging in sex with men. More commonly, however, outreach is used in conjunction with **health teaching** to inform those at risk about that risk and encourage them to seek attention. Outreach is also often implemented as a precursor to other interventions in the Intervention Wheel's red wedge, particularly **screening**.

Basic steps

Berthold (2009) described steps for planning and implementing outreach in *Foundations for Community Health Workers* (pp. 437-451):

1. Define the community served by the outreach

Knowing the community helps to determine the most effective outreach strategies.

a.   Identify key opinion leaders that have earned respect and confidence of the community.
b.   Identify potential outreach sites where the people in the community spend time.
c.   Visit local agencies to find out about the services they provide.

2. Identify the health issue and the health outcomes you hope to promote

Identifying health outcomes will give you a clear sense of what you want to accomplish.

3. Conduct research on the health issues, including previous programs and outreach campaigns

Seek to fully understand causes of the health issue, consequences, and available treatments, methods for prevention, and previous programs and campaigns. By researching the health issue and the community, you can develop outreach strategies more likely to promote the desired outcomes.

Answer the following questions:

a.   What did programs do?
b.   What was the outcome?
c.   How did the community perceive the program?
d.   What were the successes and mistakes?

4. Organize outreach team

Preparation helps the outreach event go smoothly and provides a welcoming, comfortable environment for participants.

Consider the following:

▪   Number of people needed
▪   Materials to bring to site (written materials, business cards, health supplies, hygiene products, list of resources)
▪   Funding and donations to support costs of outreach
▪   Referral information

- Forms needed to document contacts with people and the services provided
- How to dress for the outreach event or activity

5. Build trusting relationships in the community

The community observes what you do. Give the community time to get to know and accept you.

a. Contact people you already know; tell them about your role and agency you work for, services you plan to provide, and how you think they will benefit the community. Ask for their assistance and advice.
b. Identify key opinion leaders in the community; continue dialogue and nurture relationships.
c. Network with community at local events.
d. Identify community agencies that share common goals.
e. Work with key opinion leaders to organize a community forum to introduce yourself and your program. Ask them what they know about the health problem and who they think you should be talking with.
f. Be patient, keep your promises, and remain true to your word.

6. Prepare and implement plan for approaching potential clients in outreach setting

The strategies used to approach potential clients influence client engagement in the outreach intervention.

a. Be ready to start the conversation.
b. Be respectful of time and interests.
c. Keep message simple and brief.
d. Distribute outreach materials if appropriate.
e. Use humor, games, and interactive exercises.

7. Evaluate results of the outreach intervention

Evaluate outreach effectiveness. Use lessons learned to inform future outreach interventions.

Consider the following:

- Did the target population hear the message?
- Who acted on the message?
- Who received the message but did not act on it?
- Who did not receive the message?
- What barriers prevented people from receiving and/or acting on the message?
- What factors contributed to outreach success?

Example

A screening program for Chlamydia trachomatis (CT) and Neisseria gonorrhea (NG), offered in public libraries, was developed to provide outreach to a high-risk population that would likely not seek care at traditional STI clinics (Delair et al., 2016).

1. Define the community to be served by the outreach

Staff identify where STI testing currently occurs and consider other possible testing sites in Douglas County, Nebraska, which has high STI rates.

2. Identify the health issue and the health outcomes you hope to promote

The health issue is CT and NG infections among individuals, ages 15 to 24 years old. The desired health outcome is increasing screening rates to identify STIs and follow up with treatment.

3. Conduct research on the health issues, including previous programs and outreach campaigns

CT and NG infection rates in Douglas County are consistently above state and national averages (in 2016). Less than half of people who should be screened for these infections are tested. Barriers to obtaining screening include being asymptomatic, lack of health insurance, unable to pay subsidized fees, lack of transportation, concerns about confidentiality, not knowing location of testing, and traditional testing sites designed for adults. A systematic review of outreach STI programs concludes that outreach programs in neighborhood venues (community centers, shelters, sports clubs, and schools) are more effective than outreach on the streets or in open public areas.

4. Organize outreach team

The Douglas County Health Department develops the community-based CT and NG outreach program to be offered in library branches across Omaha. A STI specialist is placed in public libraries for 20 hours per week to offer screening. They obtain urine samples from people interested in participating. Other team members that could contribute to outreach planning and implementation include a health department program planner and clerical staff and library administration and staff.

5. Build trusting relationships in the community

The health department can collaborate with existing STI screening sites in the county to gain input on the screening process and best practices for communicating information. Key leaders in public health in the county should be kept up to date on outreach plans. Information about available screening and schedule at the public libraries can be publicized at community events. Staff can also seek input from high school and college students about what information will encourage people in their age group to participate in the screening program.

6. Prepare and implement plan for approaching potential clients in outreach setting

Public libraries are open to community members, access is free, and they are often located near the center of town, schools, and universities. They offer many kinds of education information and resources. An STI screening program in a library may appeal to different groups in comparison to other settings such as a hospital, clinic, or community STI testing site. Staff can tailor the information provided to 15- to 24-year-olds to motivate participation. Applying the Health Belief Model is useful in tailoring interventions that address perceptions of risk, benefits, severity, cues to action, and self-efficacy for this population group (Sohl & Moyer, 2007).

7. Evaluate results of the outreach intervention

The health department collaborates with the University of Nebraska Medical Center to evaluate the effectiveness of the outreach intervention. Positive screens are 9.9 percent of 997 library records for CT infections and 2.7 percent for NG infections. Positive screens in libraries are lower compared to traditional clinics (11.2 percent for CT infections and 5.3 percent for NG infections). The library outreach program is effective in reaching clients who are younger, asymptomatic, and black.

Key points from evidence

For a description of evidence levels, visit: **Introduction**: Overview of evidence-based practice and related topics.

▬ 1. Focusing outreach on populations most in need of screening

Outreach interventions should focus on populations that have used screening opportunities less frequently in the past.

Level 1 source:

▪ Allen, Stoddard, & Sorenson, 2008

2. Considering social network characteristics

Considering social network characteristics (family, friends, barriers to screening, cultural preferences) when planning outreach interventions increases screening follow-through.

Level 1 source:

- Allen et al., 2008

Level 3 sources:

- Alexandrake, Mooradian, 2010
- Erwin et al., 2007

3. Utilizing workers within communities' social networks

Training lay health workers, community health representatives, or peer leaders with similar socio-cultural characteristics to the population and who are part of the social networks of the population, increases effectiveness of reaching those who are most underserved and positively affects health outcomes in the population.

Level 1 source:

- Nguyen et al., 2009

Level 2 source:

- Sudarson, Jandorf, & Erwin, 2011

Level 3 sources:

- King et al., 2017
- Reinschmidt et al., 2006

4. Best practices for community-focused outreach activities

In a qualitative study on PHNs' use of the outreach intervention, participants identified involvement in community-focused outreach activities, including community forums, county fairs, immunization clinics, presentations at local groups and meetings, and senior forums. Outreach best practices included: identifying the target audience, developing an outreach plan with community input, discussing potential barriers, and evaluating the quality and success of the program. The PHNs identified the following lessons about outreach:

- Figure out what people want and how to get the information to them; involve the target audience in the plan.
- Create clear messages with accurate and up-to-date resources.
- Identify providers and agencies for offering needed services.
- It takes work to raise awareness and make a change in community norms (Tembreull & Schaffer, 2005, pp. 350-351).

Level 3 source:

- Tembreull & Schaffer, 2005

5. Improving client health behavior and access

Examples of effective outreach activities that improved client health behavior or access to health services:

- A neighborhood-based approach to reaching low-income populations used newborn registries, proactive nursing outreach, and collaboration with a home visiting agency to improve access to health-promotion services.
- An intervention designed to increase physical activity in local parks included obtaining input from park users and community residents, five training sessions on outreach and marketing for park directors and park advisory board members, and funding for each intervention park.
- An informational brochure on colorectal cancer and colonoscopy was mailed to a primary care population 50 years and older who were referred by a primary care physician for a screening colonoscopy.
- Postcards and telephone calls were provided to a primary care population of women, ages 65 to 79, to promote bone density screening.
- The Arkansas Community Connector program used trained community health workers to provide outreach to locate people living in the community who are at risk for entering nursing homes.
- The Healthy Living and Learning Center, located in a public library in Petersburg, Virginia, assists patrons in accessing health information and resources.
- A mental health outreach program located older adults in the community, who were identified by professionals and community gatekeepers as at-risk, isolated, abused, and delusional.

Level 1 sources:

- Cohen et al., 2013
- Denberg et al., 2006

Level 2 sources:

- Brown, Perkins, Blust, & Kahn, 2015
- Felix, Mays, Stewart, Cottoms, & Olson, 2011

Level 3 sources:

- Denberg et al., 2009
- Ports et al., 2015
- Yang, Garis, & McClure, 2006

6. Maximizing online reach

Based on an analysis of social media conversations on bullying, researchers made the following recommendations to maximize the reach of StopBullying.gov and exposure to the content of the website:

- When creating public health campaigns, analyze language used by target audience to ensure messages resonate with the audience.
- Connect with online influencers' authority in social media conversations by following or liking their organizations on social media.
- Retweet, share, and comment on influencers' activity that is consistent with federal messages.

- Share StopBullying.gov content directly with influencers, using similar terms.
- Live tweet at conferences and events.

Level 3 source:

- Edgerton et al., 2016

7. Supplement health promotion with art

In a health promotion project in Canada called "The Novella Approach to Inform Women Living on Low Income about Early Breast Cancer Detection," peer educators created "novellas" involving art (painting, sculpture, written narratives) to express their life experiences as breast cancer survivors.

The peer educators used the novella approach to reach out with their message about the importance of early detection to over 900 women. Based on program evaluation, authors made the following recommendations for effective outreach:

- Be present where the women live, work, or gather, such as food banks, day cares, churches, mosques, cultural centers, and workplaces.
- Be sensitive to religious and cultural beliefs and values.
- Allow time to develop and nurture working relationships in the community.
- Engage community representatives to work within the community rather than using an expert model that works outside of the community.
- Graphic artwork and pointed health promotion messages work best for outreach in health fairs and community events rather than at hospitals or events where persons with a recent cancer diagnosis may be present.

Level 5 source:

- Herbison & Lokanc-Diluzio, 2008

8. Tailoring interventions to populations

A systematic review on tailored interventions for outreach to populations to promote mammography screening found that tailoring interventions to the health belief model and including a physician recommendation had the strongest influence on obtaining mammography screening. Tailoring interventions to the Health Belief Model addresses perceptions of risk, benefits, severity, cues to action, and self-efficacy to motivate decision-making.

Level 2 source:

- Sohl & Moyer, 2007

Wheel notes

Joining forces in outreach

Working with other community partners is essential for effective outreach. When providing services to individuals (home visiting, school nursing), PHNs may note a health problem or illness that appears to occur more often than usual. In this situation, they may use **case-finding** to reach out to the population to identify additional individuals who are experiencing the health problem or illness. PHNs are likely to involve other staff and organizations to locate individuals who are at-risk or ill.

With community-level outreach, PHNs collaborate with other professionals, health care and other relevant organizations, businesses, and people who represent the population in order to develop effective outreach strategies.

Level of evidence

A number of studies identified in key points from evidence have a high evidence level (experimental and quasi-experimental studies). When outreach intervention programs are compared with usual care in level 1 and level 2 studies, PHNs can confidently use the recommendations in designing outreach interventions.

Outreach by community health workers

Evidence supports the effectiveness of outreach conducted by community health workers. The role of the community health worker has emerged in response to economic pressures and health care reform measures (Kauer, 2016). To be effective, the community health worker role must be clearly defined. Community health workers require training, supervision, and ongoing support. PHNs may work with community health workers on an outreach team and need to be knowledgeable about guidelines for community health worker responsibilities and accountability.

References

Alexandrake, I. & Mooradian, A. D. (2010). Barriers related to mammography use for breast cancer screening among minority women. *Journal of the National Medical Association, 102*(3), 206-218.

Allen, J. D., Stoddard, A. M., & Sorenson, G. (2008). Do social network characteristics predict mammography screening practices? *Health Education & Behavior, 35*(6), 763-776. doi: 10.1177/1090198107303251

Berthold, T. (2009). Health outreach. In *Foundations for community health workers* (pp. 437-451). Hoboken, NJ: Jossey-Bass.

Brown, C. M., Perkins, J., Blust, A., & Kahn, R. S. (2015). A neighborhood-based approach to population health in the pediatric medical home. *Journal of Community Health, 40*, 1-11. doi: 10.1007/s10900-014-9885-z

Cohen, D. A., Han, B., Derose, K. P., Williamson, S., Marsh, T., & McKenzie, T. L. (2013). Physical activity in the park: A randomized controlled trail using community engagement. *American Journal of Preventive Medicine, 45*(5), 590-597. doi.org/10.1016/j.amepre.2013.06.015

Delair, S. F., Lyden, E. R., O'Keefe, Simonsen, K. A., Nared, S. R., Berthold, E. A., et al. (2016). A novel library-based sexually transmitted infection screening program for younger high-risk groups in Omaha, Nebraska, USA. *Journal of Community Health, 41*, 289-295. doi: 10.1007/s10900-015-0095-0

Denberg, T. D., Coombes, J. M., Byers, T. E., Marcus, A. C., Feinberg, L. E., Steiner, J. F., et al. (2006). Effect of a mailed brochure on appointment-keeping for screening colonoscopy: A randomized trial. *Annals of Internal Medicine, 145*(12), 895-900.

Denberg, T. D., Meyers, B. A., Lin, C., Libby, A. M., Min, S., McDermott, M. T., et al. (2009). An outreach intervention increases bone densitometry testing in older women. *Journal of the American Geriatrics Society, 57*(2), 341-347. doi: 10.1111/j.1532-5415.2008.02111.x.

Edgerton, E., Reiney, E., Mueller, S., Reicherter, B., Curtis, K., Waties, S., & Limber, S. P. (2016). Identifying new strategies to assess and promote online health communication and social media outreach: An application in bullying prevention. *Health Promotion Practice, 17*(3), 448-456. doi: 10.1177/1524839915620392

Erwin, D. O., Johnson, V. A., Trevino, M., Duke, K., Feliciano, L., & Jandorf, L. (2007). A comparison of African American and Latina social networks as indicators for culturally tailoring a breast and cervical cancer education intervention. *Cancer, Supplement 109*(2), 368-377. doi: 10.1002/cncr.22356

Felix, H. C., Mays, G. P., Stewart, M. K., Cottoms, N., & Olson, M. (2011). Medicaid savings resulted when community health workers matches those with needs to home and community care. *Health Affairs, 30*(7), 1366-1374.

Herbison, S. & Lokanc-Diluzio, W. (2008). The novella approach to inform women living on low income about early breast cancer detection. *Health Promotion Practice, 9*(3), 294-304. doi: 10.1177/1524839906289166

Kauer, M. (2016). Community health workers-birth of a new profession. *Journal of the American Society on Aging, 40*(1), 56-63.

King, C., Goldman, A., Gampa, V., Smith, C., Musket, O., Brown, C., et al. (2017). Strengthening the role of community health representatives in the Navajo nation. *BMC Public Health, 17*, 1-10. doi: 10.1186/s12889-017-4263-2

Minnesota Department of Health. (2018). *The Minnesota Chlamydia Partnership (MCP)*. Retrieved from https://www.health.state.mn.us/diseases/chlamydia/mcp.html

Nguyen, T. T., Le, G., Nguyen, T., Lai, K., Gildengoren, G., Tsoh, G., et al. (2009). Breast cancer screening among Vietnamese Americans: A randomized controlled trial of lay health worker outreach. *American Journal of Preventive Medicine, 37*(4), 306-313.

Ports, K. A., Ayers, A., Crocker, W., Hart, A., Mosavel, M., & Rafie, C. (2015). Community perceptions and utilization of consumer health care center. *Journal of the Medical Library Association, 103*(1), 35-39. doi.org/10.3163/1536-5050.103.1.007

Reinschmidt, K. M., Hunter, J., B., Fernandez, M. L., Lacy-Martinez, C. R., de Zapien, J. G., & Meister, J. (2006). *Journal of Health Care for the Poor and Underserved, 17*(2), 256-264.

Self, B. & Peters, H. (2005). Street outreach with no streets. *Canadian Nurse, 101*(1), 20-24.

Sohl, S. J. & Moyer, A. (2007). Tailored interventions to promote mammography screening: A meta-analytic review. *Preventive Medicine, 45*, 252-261. doi: 10.1016/j.ypmed.2007.06.009

Sudarson, N. R., Jandorf, L., & Erwin, D. O. (2011). Multi-site implementation of health education programs for Latinas. *Journal of Community Health, 36*(2), 193-203. doi: 10.1007/s10900-010-9297-7

Tembreull, C. L. & Schaffer, M. A. (2005). The intervention of outreach: Best practices. *Public Health Nursing, 22*(4), 347-353.

Yang, J. A., Garis, J., & McClure, R. (2006). Clinical mental health outreach to older adults: Serving the hard-to-serve. *Clinical Gerontologist, 29*(2), 71-79. doi: 10.1300/J018v29n02_08
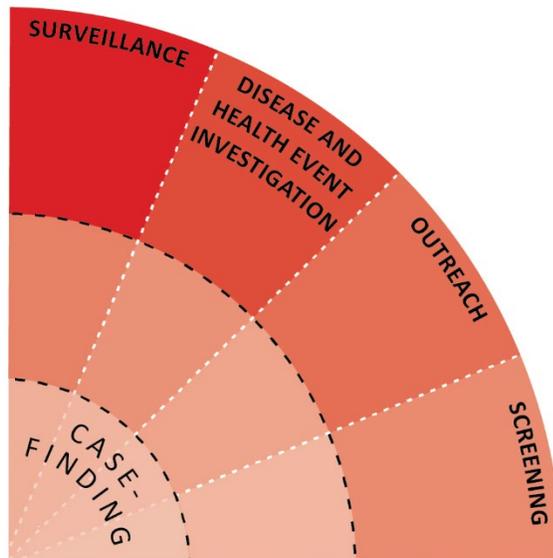
Screening

Screening identifies individuals with unrecognized health risk factors or asymptomatic disease conditions in populations.

Screening aims to: 1) detect health risks and disease to reduce adverse consequences, transmission of disease, and suffering, and 2) improve prevention and treatment outcomes (World Health Organization, 2013).

Three types of screening exist:

- **Mass**: Screening the general population for a single risk or multiple health risks at community events or locations, such as health fairs at work sites or health appraisal surveys at county fairs (community level).
- **Targeted**: Screening a discrete subgroup within the population, such as those at risk for HIV infection (individual/family level).
- **Periodic**: Screening a discrete population subgroup on a regular basis, over time, for predictable risks or problems. Examples include breast and cervical cancer screening among age-appropriate women, well child screening, and the follow-along associated with early childhood development programs (individual/family level).

Practice-level examples

Population of interest: Children at risk for lead poisoning.

Problem: Children exposed to environmental lead exhibit neurotoxic effects, including learning and behavior problems, lower intelligence, slowed growth and development, hearing and speech problems, and anemia. In Flint, Michigan, elevated blood levels increased from 2.4 percent to 4.9 percent among children younger than five years after the city switched the water source to the Flint River. Because the water treatment did not include a chemical corrosion-inhibiting compound, lead leached into the water supply from plumbing. Higher rates of elevated blood levels occurred in socially disadvantaged neighborhoods with older homes (Hanna-Attisha, LaChance, Sadler, & Schnepp, 2016; Hanna-Attisha, 2017; Maqsood, Stanbury, & Miller, 2017).

Systems level

State law in Michigan mandates screening children under 5 years old insured by Medicaid, and children enrolled in WIC, for blood lead levels (Michigan Department of Community Health, 2009). Michigan State University and the Hurley Medical Center in Flint launched the Pediatric Public Health Initiative to mitigate the effects of the Flint water crisis. Through this initiative, PHNs received a wealth of resources for additional child development screening in at-risk populations including maternal-infant support programs, universal home-based early intervention, early childhood education, and parenting support programs (Hanna-Attisha, 2017).

Community level

The Michigan Department of Health and Human Services offers a Lead Safe Home Program that provides lead testing and hazard control services to qualifying families through grants. The Michigan Department of Community Health created a "Finding a Healthy Home" checklist, which assists families in screening a potential new home for safety. The checklist includes resources for promoting lead-safe homes. Public health nurses offer these resources when they screen families with young children for lead toxicity.

Individual/family level (case-finding)

For families with young children, PHNs use a lead screening questionnaire to determine risk status and need for referral: Lead testing/lead screening plan for Flint, Michigan (Michigan Department of Health and Human Services, 2016).

Relationship with other interventions

Social marketing and outreach interventions frequently occur prior to the screening intervention, especially with regard to the mass screening intervention. Health

teaching and **counseling** interventions usually occur simultaneously with screening or as a feature of the interview conducted post-screening. **Referral and follow-up** interventions often occur for those requiring further assessment of risk or symptoms.

Basic steps

The following steps are adapted from the World Health Organization (2013):

1. Assess the situation

Before initiating screening, determine the health risk or disease threat to population health and whether interventions exist to follow up on screening results.

a.   Determine previous screening activities and results in the population, including cost-effectiveness and outcomes.
b.   Review the epidemiology.
c.   Identify existing health services and access to care for the population.
d.   Identify existing screening guidelines.
e.   Identify relevant groups for partnership (organizations providing health services, supportive community leaders, and providers and health workers who conduct the screening and follow-up treatment services).

2. Develop the program

Development of the screening program should include:

a.   Scope (who and how many in the population and the geographic area)
b.   Program design (e.g., clinic, home visits, mobile clinic, laboratory, health fair)
c.   Identification of the screening algorithm (step-by-step screening process)
d.   Referral of individuals with positive results to treatment, monitoring, and support

3. Prioritize risk groups

Screening population groups with the highest risk effectively identifies individuals most likely to benefit:

a.   Prioritize risk groups in each setting:
   ▪   Assess potential benefits and harms, acceptability of screening approach, number needed to screen, and cost-effectiveness.
   ▪   Determine prevalence of the risk or disease in the population group, the risk for poor treatment outcomes if diagnosis is delayed, the epidemiological situation, capacity of the health system, and the availability of resources.
b.   Avoid indiscriminate mass screening.

Figure 1: Pediatric developmental screening flowchart
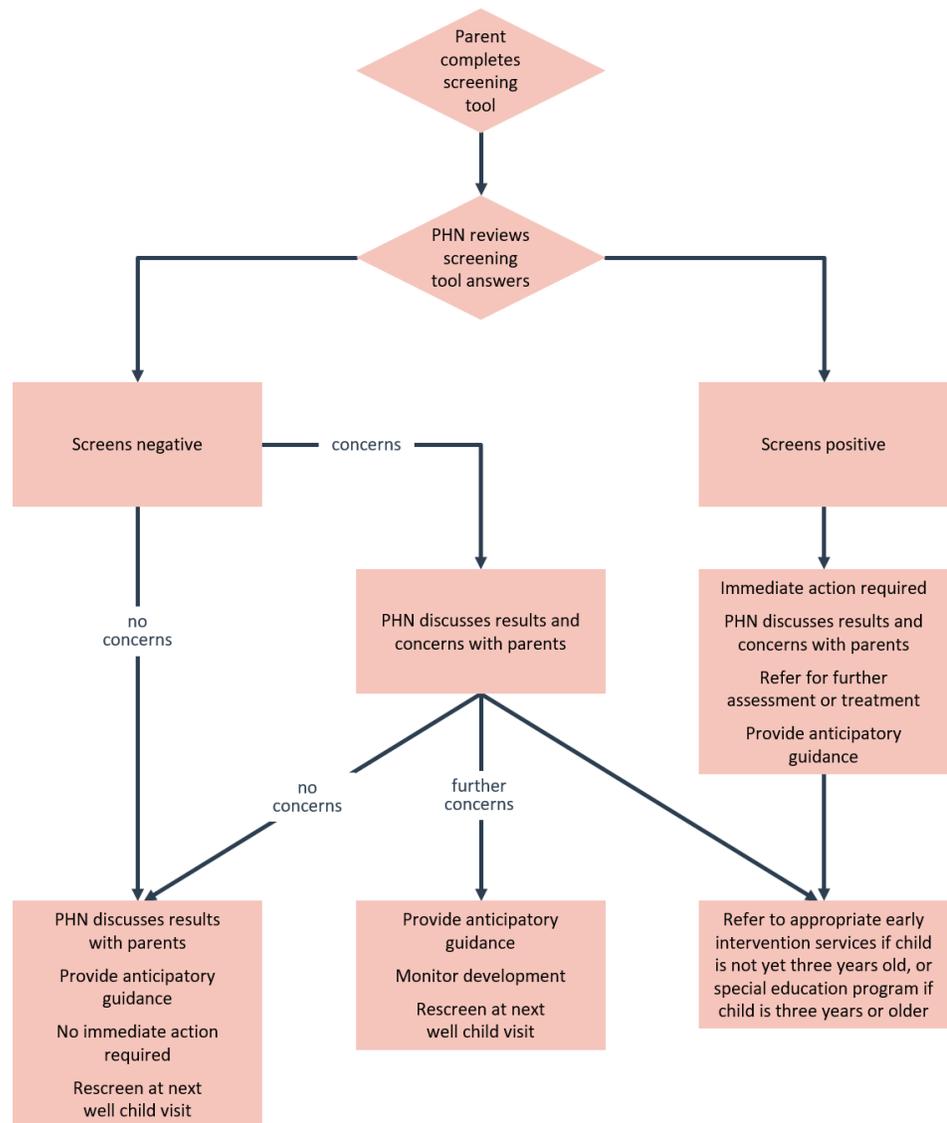
Adapted from CDC (2017b).

4. Use evidence-based algorithm and approach

a. Screening algorithms identify the steps in the process and communicates the process (for an example of developmental screening, see **Figure 1**).

b. Screening algorithms vary for different groups (for example, children or adults).

c. Algorithm selection depends on the risk group, health risk or disease prevalence, resource availability, and plan feasibility.

d. Evidence to consider when selecting a screening tool (Adam & Hilfinger, 2016):

   ▪ Reliability: What is the consistency of the screening tool in obtaining accurate results?

- Validity: Does the screening tool measure what it is intended to measure?
- Sensitivity: Does the screening tool accurately identify the occurrence of the health risk or signs of disease?
- Specificity: Does the screening tool accurately identify individuals who do not have the health risk or signs of disease?

e. When selecting a screening approach, identify strategies to ensure:
- Consent
- Mitigation of potential stigma or negative social consequences
- Communication of relevance
- Incentives

5. Plan, budget, and implement

Ensure adequate resources, including funding and personnel for implementation.

The screening plan includes the following components:

a. Selection or creation of protocols and tools
b. Criteria for evaluating screening strategies (Dans, Asuncion, & Silvestre, 2011, p. 231):
- High burden of illness
- Accurate tests
- Early treatment more effective than late treatment
- Safe diagnostic tests and early treatment
- Cost commensurate with potential benefit
c. Identification of available resources for implementation, including funding, human resources, and feasible interventions and treatment
d. Hiring and training staff for identified roles
- Outreach and/or contact investigations
- Data entry, management, monitoring, and analysis
- Program management, coordination, and problem solving
e. Pilot testing
f. Initial evaluation

6. Monitor and evaluate

Evaluate the effectiveness of the screening approach and determine changes needed for future screening activities.

a. Monitor:
- Collection of key information and performance
- Consistency with screening program's goals
- Use of data collection tools
b. Evaluate analysis and the reporting system.
c. Conduct an outcomes analysis; use mathematical modelling to estimate the impact on the incidence and prevalence of the health risk or disease in the targeted community.
d. Seek screening program feedback from the population screened.

Example

The Michigan Department of Health and Human Services offers a Lead Safe Home Program that provides lead testing and hazard control services to qualifying families through grants (Hanna-Attisha et al., 2016; Maqsood et al., 2017).

1. Assess the situation

In April 2014, the city of Flint, Michigan changes its water supply to the Flint River while waiting for a new pipeline from Lake Huron. After the switch, city residents report concerns about water color, taste, and odor, and negative effects on health, such as skin rashes. Due to lack of a corrosion inhibitor and the high percentage of lead pipes and plumbing in the water distribution system, the chemical makeup of the Flint River water contribute to lead leaching into the drinking water. Although researchers from Virginia Tech University report increases in water lead levels, the impact on blood lead levels remains unknown.

2. Develop the program

Staff analyze "differences in pediatric elevated blood lead level incidence before and after Flint." (Hanna-Attisha et al., 2016, p. 283).

3. Prioritize risk groups

The highest risk group included children under 5 years of age living within the city of Flint receiving water from the city. Children living outside the city with an unchanged water source provided a comparison group.

4. Use evidence-based algorithm and approach

A computer algorithm links multiple tests of the same child to Medicaid data files and the state immunization registry: "A blood lead level equal to or greater than 5 micrograms per deciliter of blood (≥5 µg/dL) is considered elevated by CDC" (Maqsood et al., 2017, p. 6). The laboratory tests for blood lead level uses a venous or capillary blood sample. Capillary blood tests may produce false positive results; confirmation of elevated capillary blood tests occurs with a venous blood test.

5. Plan, budget, and implement

Screeners communicate the lead testing status of children to Medicaid managed care plans, who use the data to contact providers not compliant with Medicaid lead screening requirements. Local health departments conduct follow-up with Medicaid fee-for-service providers not in compliance with the Medicaid screening requirements. Local health departments receive a weekly update of blood tests, indicating venous or capillary. The local health departments (LHDs) follow up with the families

of children completing capillary lead screening and encourage them to see their provider for a confirmatory venous test.

> LHDs use the weekly data reports to identify and follow up on children with EBLLs (elevated blood lead levels). Depending on resources, LHDs provide case management services to children with EBLLs and their families. Case management may include a home visit to make a visual assessment of lead hazards, an assessment of the child's growth and development, [which are screening activities] education of the caregivers on nutrition and cleaning, and referrals to other agencies for interventions. A nurse consultant supports case management activities at the LHDs through training and technical consultations. LHDs use a web-based application to track case management activities (Maqsood et al., 2017, p. 7).

6. Monitor and evaluate

Key recommendations to improve the lead poisoning screening strategy:

- Improve "the completeness, accuracy, and timeliness of the surveillance system by implementing a modernized data management system and automating the process of receiving and compiling reports from laboratories."
- "Partner with other agencies to increase the proportion of children with EBLLs based on capillary tests receiving a confirmatory venous test."
- "Launch a new program to increase reimbursement to local health departments for the provision of in-home nursing case management for Medicaid children with EBLLs, supported by training and technical assistance."
- "Collaborate with the Michigan Department of Health and Human Services Lead Safe Home Program to expand environmental inspection services and financial support for home lead abatement" (Maqsood et al., 2017, p. 3).

Key points from evidence

For a description of evidence levels, visit: **Introduction**: Overview of evidence-based practice and related topics.

1. Principles and guidelines for effective health screening

In 1968, the World Health Organization published of principles/guidelines for effective health screening:

- The condition should be an important health problem that carries with it notable morbidity and mortality.
- There should be an accepted treatment for patients with recognized disease.
- Facilities for diagnosis and treatment should be available.
- There should be a recognizable latent or early symptomatic stage.
- There should be a suitable test or examination.
- The test should be acceptable to the population.

- The natural history of the condition, including development from latent to declared disease, should be adequately understood.
- There should be an agreed policy on whom to treat as patients.
- The cost of finding, diagnosing, and treating patients should be economically balanced in relation to the anticipated overall expenditure on medical care.
- Case-finding should be a continuing process and not a "once and for all" project.

Level 5 sources:

- Stifler & Dever, 2015
- Wilson & Jungner, 1968

2. Successful screening programs

A successful screening program is:

- Valid (accurate)
- Reliable (precise)
- Capable of large-group administration
- Minimally invasive
- Worth the effort and expense
- Ethical and effective (meets public health goal, benefits outweigh possible harms)
- Simple, rapid, inexpensive, safe, and acceptable

Level 5 sources:

- Adams & Hilfinger, 2016
- Friss & Sellers, 2014

3. Asking the right questions

Questions to ask when planning a screening program:

- Is the health problem important to the individual and community?
- Is diagnostic and follow-up intervention available to all?
- Is there high public acceptance of the screening program and tools/tests?
- Is there an adequate scientific knowledge base about the epidemiology of the health risk or disease, efficacy of prevention, and/or treatment?
- Is there evidence that the results of the screening program can improve the natural history of the health risk or disease for a significant proportion of those screened?

Level 5 source:

- Friss & Sellers, 2014

4. Considering ethical issues

Ethical issues to consider when conducting screening:

- Preventing harm: Does the risk of screening offset the benefits?
- Self-determination: Individuals who are offered screening should decide if the screening is acceptable to them
- Confidentiality: Individual screening results are protected health information

- Equity: Ensure that everyone who may be at risk for the health problem or disease has access to recommended screening strategies

Level 5 source:

- Asuncion, Silvestre, Dans, & Dans, 2011

5. Using standardized screening instruments

A systematic review on developmental screening in children under 5 years old administered primarily by nurses, found that training nurses to use standardized instruments contributed to an acceptable level of reliability and improved screening efficiency. This led to accurate identification and referral for early intervention.

Level 3 source:

- Trivette, O-Herin, & Dunst, 2009

6. When limited screening is appropriate

Experts determined that adopting a population-based screening program for asthma is not recommended, given a lack of evidence of improvement in health outcomes. Limited screening may be appropriate in areas with a high prevalence of undiagnosed asthma and where identified clients have access to high quality asthma care. The authors recommended applying World Health Organization criteria for assessing screening programs to decision-making about asthma screening.

Level 4 source:

- Gerald et al., 2007

7. When screening is harmful

Based on a systematic review the United States Preventive Services Task Force concluded that the harms of screening adolescents for idiopathic scoliosis exceed potential benefits. Most cases detected during screening are not clinically significant, those who need aggressive treatment are likely to be detected without screening, and potential harms include unnecessary brace wear and referral for specialty care.

Level 4 source:

- United States Preventive Services Task Force, 2014

8. Screening for abuse

Using domestic abuse screening tools increases violence disclosure rates and safety planning. Screening tool strengths include the presence of an opening statement about the prevalence and impact of abuse (provides justification for the screening), screening for all types of abuse, and non-judgmental and sensitive questions.

Level 1 source:

- Taft et al., 2015

Level 2 source:

- Vanderberg, Wright, Boston, & Zimmerman, 2010

Level 5 source:

- Litherland, 2012

9. Safeguards when screening for Body Mass Index (BMI)

CDC recommended safeguards for Body Mass Index (BMI) screening in schools. Safeguards included: a) accurate and reliable equipment, b) staff training, c) follow-up resources, d) parent notification of results, and e) providing referrals. Barriers to effective BMI screening practices include lack of screening policy, time-consuming data gathering process, lack of equipment and referral resources, and school nurse workload. Implications for school nursing practice include: be familiar with safeguards; communicate importance of safeguards to school administrators; participate in training on the safeguards; and collaborate with other school staff, other schools, and community partnerships to share safeguard equipment and costs.

Level 3 sources:

- Sliwa, Brener, Lundeen, & Lee, 2018
- Stalter, Chaudry, & Polivka, 2010

10. Using apps for screening

A qualitative study on mobile screening applications (apps) for men identified three themes for increasing app use:

- **Content**: 1) Health risks, benefits, risks of health screening, and available screening services; 2) Convenient assessment of health status in private in-home setting; 3) Personalized and tailored feedback that is not overwhelming; 4) Secure data, up-to-date information, and credible sources
- **Format**: 1) Information delivery in lay terms; 2) Easy-to-use features with pictures and videos; 3) Reminders of the health screening date and daily or weekly reminders for improving health; 4) Connection to social media for sharing experience and motivating health screening
- **Dissemination strategies**: 1) Advertising (hospital, gym, shopping center, men's magazines, social media); 2) Recommendations from physicians and celebrities; 3) Incentives, such as a discount voucher, free health screening, or monitory reward; 4) Integrating the app into a basic apps package

Level 3 source:

- Teo, Ng, & White, 2017

Wheel notes

Common public health nursing screening activities

Public health nurses target screening activities to the population and setting in which they work. Some common examples include:

- Tuberculosis screening in a correctional facility
- HIV screening at an HIV/STI clinic
- Anemia screening of pregnant women and infants at a WIC clinic
- Blood lead level checks in at-risk children during well-child assessments
- Hypertension screening at work sites
- Growth and development screening in early childhood clinics
- Pregnancy testing at family planning clinics
- Postpartum depression screening during home visits
- Domestic violence screening during home visits
- Drug and alcohol use screening for adolescents in high schools
- Hearing and vision screening with school-aged children
- Screening for violence risk with women on maternal and child health caseload
- Home hazard screening of elder homes
- Blood glucose screening at senior health clinics
- BMI and cholesterol screening at community health fairs

Evaluating screening tool effectiveness

Many studies provide evidence about the reliability and validity of screening tests and evaluate the sensitivity (accurate identification of positive cases) and specificity (accurate identification of negative cases). Review current evidence and determine cost-effectiveness and harm versus benefit. In the past, school nurses offered scoliosis screening; current evidence does not support scoliosis screening because of the high rate of false positives and follow-up expense (United States Preventive Services Task Force, 2014).

Preventing harm: Cultural/racial factors

Consider ethical concerns when conducting screening: preventing harm, self-determination, confidentiality, and equity. Knowledge about cultural differences and experience promotes ethical screening actions. For example, a medical provider unfamiliar with Mongolian spots (variations in skin pigment in babies of African, Asian, Indian, or Mediterranean descent) may interpret them as bruises related to possible child abuse. The blue or gray spots are usually gone within a year and require no treatment.

Screening plus referral and follow-up

Screening without referral options for prevention and/or treatment is unethical. Before initiating screening activities, ensure that **referral and follow-up** options exist. Referral and follow-up options also contribute to the ability to evaluate the effectiveness of the prevention/treatment in decreasing the health risk or severity of disease.

References

Adams, S. A. & Hilfinger, D. A. (2016). Epidemiology. In M. Stanhope & J. Lancaster (Eds.). *Public health nursing: Population-centered care in the community*. St. Louis, MO: Elsevier.

Asuncion, M., Silvestre, A., Dans, L. F., & Dans, A. L. (2011). Trade-off between benefit and harm is crucial in health screening recommendations. Part II: Evidence summaries. *Journal of Clinical Epidemiology, 64,* 240-249.

Centers for Disease Control and Prevention. (2017a). *Autism Spectrum Disorder (ASD): Screening and diagnosis for healthcare providers*. Retrieved from https://www.cdc.gov/ncbddd/autism/hcp-screening.html

Centers for Disease Control and Prevention. (2017b). *Pediatric developmental screening flowchart*. Retrieved from https://www.cdc.gov/ncbddd/childdevelopment/documents/Screening-Chart.pdf

Dans, L. F., Asuncion, M., & Silvestre, A. L. (2011). Trade-off between benefit and harm is crucial in health screening recommendations. Part I: General principles. *Journal of Clinical Epidemiology, 64*, 231-239.

Friss, R. H. & Sellers, T. A. (2014). *Epidemiology for public health practice*. Burlington, MA: Jones & Bartlett Learning.

Gerald, L. B., Sockrider, M. M., Grad, R., Bender, B. G., Boss, L. P., Galant, S. P., et al. (2007). An official ATS Workshop Report: Issues in screening for asthma in children. *Proceedings of the American Thoracic Society, 4*, 133-141. doi: 10.1513/pats.200604-103ST

Hanna-Attisha, M. (2017). Flint kids: Tragic, resilient, and exemplary. *American Journal of Public Health, 107*(5), 651-652. doi: 10.2105/AJPH.2017.30373

Hanna-Attisha, M., LaChance, J., Sadler, R. C., & Schnepp, A. C. (2016). Elevated blood lead levels in children associated with the Flint drinking water crisis: A spatial analysis of risk and public health response. *American Journal of Public Health, 106*, 283-290. doi: 10.2105/AJPH.2015.303003

Litherland, R. (2012). The health visitor's role in the identification of domestic abuse. *Community Practitioner, 85*(8), 20-23.

Maqsood, J., Stanbury, M., & Miller, R. (2017). *2015 data report on childhood lead testing and elevated blood lead levels: Michigan*. Retrieved from https://www.michigan.gov/documents/lead/2015_annual_report_2_7_17_551735_7.pdf

Michigan Department of Community Health. (2009). *Statewide lead testing/lead screening plan*. Retrieved from https://www.michigan.gov/documents/ScreenPlan_11223_7.pdf

Michigan Department of Health and Human Services. (2016). *Lead testing/lead screening plan for Flint, Michigan*. Retrieved from https://www.michigan.gov/documents/mdch/testing-screening071009_287511_7.pdf

Sliwa, S. A., Brener, N. D., Lundeen, E. A., & Lee, S. M. (2018). Do schools that screen for body mass index have recommended safeguards in place. *Journal of School Nursing*, 1-10. doi: 10.1177/1059840518758376

Stalter, A. M., Chaudry, R. V., & Polivka, B. J. (2010). Facilitating factors and barriers to BMI screening in schools. *Journal of School Nursing, 26*(4), 320-330. doi: 10.1177/1059840510368524

Stifler, M. C. & Dever, B. V. (2015). *Mental health screening at school: Instrumentation, implementation, and critical issues*. Switzerland: Springer International Publishing.

Taft, A. J., Hooker, L., Humphreys, C., Hegarty, K., Walter, R., Adams, C., et al. (2015). Maternal and child health nurse screening and care for mothers experiencing domestic violence (MOVE): A cluster randomised trial. *BMC Medicine, 13*, 1-10. doi: 10.1186/s12916-015-0375-7

Teo, C. H., Ng, C. J., & White, A. (2017). What do men want from a health screening mobile app? A qualitative study. *PLoS ONE, 12*(1): e0169435. doi: 10.1371/journal.pone.0169435

Trivette, C. M., O-Herin, C. E., & Dunst, C. J. (2009). Accuracy of nurse provider child screening practices. *Cornerstones, 4*(1), 1-9. Retrieved from http://www.puckett.org/tracecenter.php

United States Preventive Services Task Force. (2014). *Archived Final Recommendation Statement: Idiopathic Scoliosis in Adolescents: Screening*. Retrieved from https://www.uspreventiveservicestaskforce.org/Page/Document/RecommendationStatementFinal/idiopathic-scoliosis-in-adolescents-screening

Vanderberg, S., Wright, L., Boston, S., & Zimmerman, G. (2010). Maternal child home visiting program improves nursing practice for screening of woman abuse. *Public Health Nursing, 27*(4), 347-352. doi: 10.111/j.1525-2010.00865.x

Wilson J. M. & Jungner, F. (1968). *Principles and practices of screening for diseases*. Geneva: World Health Organization [WHO].

World Health Organization (2013). *Systematic screening for active tuberculosis: Principles and recommendations*. Retrieved from http://www.who.int/tb/publications/tbscreening/en/
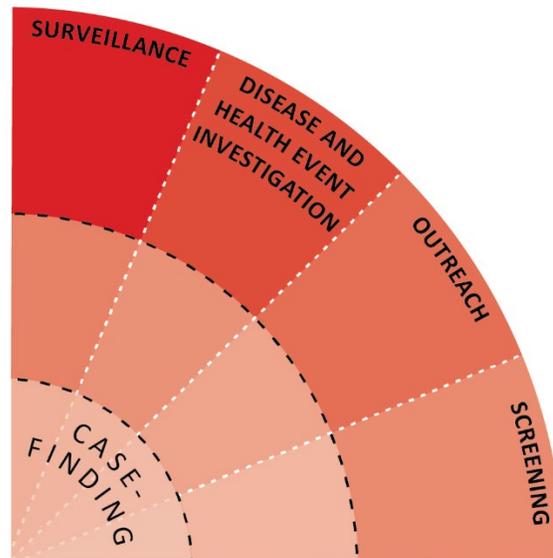
Case-finding

Case-finding locates individuals and families with identified risk factors and connects them to resources.

Case-finding is a one-to-one intervention operating only at the individual/family level. Case-finding serves as the individual/family level of intervention for surveillance, disease and health event investigation, outreach, and screening. Case-finding locates those most at risk.

In an editorial in the American Journal of Nursing, Kennedy (2016) stated:

> [Case-finding] falls within the purview of all nurses. Nursing assessments must include questions about patients' homes and neighborhoods and jobs and pets and military service. All of us, wherever we work and live, must be alert for patterns of illness and be proactive in bringing them to light (p. 7).

Kennedy highlighted three case-finding examples nurses identified when they asked the question "What's been happening?"

- A school nurse in New York City, Mary Pappas, recognized a pattern of symptoms that indicated the onset of the 2001 H_1N_1 influenza pandemic.
- In 2012, a nurse in rural Washington state, Sara Barron, alerted the state health department of the occurrence of three infants born with anencephaly at one hospital. A follow-up investigation revealed an anencephalic birth rate four times the national average.
- An occupational health nurse in Minnesota, Carole Bower, reported similarities of slaughterhouse workers' complaints to the state health department. The follow-up investigation led to identifying a new illness related to pig brain proteins released into the air during meat processing.

Practice examples: Individual/family

Case-finding from surveillance

Public health nurses (PHNs) routinely inquire about flu-like symptoms with the individuals, families, groups, and colleagues with whom they work. During staff meetings, PHNs report and monitor flu activity in the area.

Case-finding from disease and health event investigation

When providing services to women of childbearing age, PHNs inquire about symptoms of infection in women and their partners and history of travel or residence in environments where infected mosquitoes may be present. Recommending testing for Zika infection contributes to identifying and reporting possible outbreaks, which can lead to implementing control measures.

Case-finding from outreach

A rural "street nurse" provided outreach in British Columbia to a marginalized population. Services offered included sexually transmitted infection (STI) testing, chlamydia treatment, pregnancy testing, emergency contraception support, and financial form completion assistance. Settings included schools, a drop-in center, a mall, a youth center, and "the street." The street nurse collaborated with other PHNs, health care providers, mental health workers, and social workers, in making and receiving referrals (Self & Peters, 2005).

Case-finding from screening

For families with young children, PHNs determine risk status and need for referral using a lead-screening questionnaire: Lead testing/lead screening plan for Flint, Michigan (Michigan Department of Health and Human Services, 2016).

Relationship with other interventions

Case-finding is linked to **outreach**, **screening**, **surveillance**, and **disease and health event investigation**. Case-finding, as the individual/family practice level of surveillance, disease and health event investigation, outreach, and screening, often leads to **referral and follow-up**.

Basic steps

1. Identify individuals and families at risk through information from surveillance, disease and health event investigation, and/or outreach

Effective case-finding occurs when targeting at-risk populations.

Risk severity increases with factors that make individuals and families unaware, unable, or unwilling to respond:

a. Unaware of risk :
    - Lacking information or understanding of the risk
    - Isolated from media
b. Unable to respond:
    - Unable to receive or understand the message, due to illiteracy, hearing and vision impairments, or cognitive impairment
    - Non-English-speaking or other language barriers
    - Contrasting cultural beliefs
    - Lacking resources, such as financial resources, transportation, child care, or social skills
c. Unwilling to respond, fearing that negative consequences exceed benefits:
    - Fear of deportation
    - Unable to afford out-of-pocket costs

2. Connect with formal and informal networks to find those identified as at-risk

This strategy helps identify the at-risk target population.

- Formal networks include professionals and agencies with whom the PHN communicates regularly and maintains a relationship (e.g., hospital and outpatient discharge planners, follow-along program coordinators for children with special needs, social workers, and epidemiologists).
- Informal networks include individuals and organizations with whom the individual or family communicates regularly and maintains a relationship.
- Successful case-finding often depends on the PHN developing a trust relationship with members of the individual's or family's network.

3. Initiate activities providing information about the nature of the risk, possible solutions, and service attainment

Once the PHN identifies the target population, resources on risk information and referral provide accurate and timely information to individuals identified as at-risk for or having the health problem or disease.

a.   The PHN bases the approach on the individual or family rationale for not seeking services.

b.   If the individual or family is unaware of the risk or does not understand its severity or full potential for harm, the PHN provides **health teaching** to reduce the knowledge deficit and further engage them using a teaching and **counseling** strategy.

c.   If the individual or family is unable to respond, the PHN works with them to resolve the barriers, providing **counseling**, **consultation**, **advocacy**, and/or **referral and follow-up** for transportation, financial assistance, arrangement for interpreters, and child-care provision.

d.   If the individual or family is unwilling to respond, the PHN establishes a trust relationship and identifies the source, such as fear or anxiety, of the unwillingness. With trust established, the PHN provides **health teaching**, **counseling**, **consultation**, **advocacy**, and/or **referral and follow-up** as needed.

4. If the level of risk suggests endangerment to the individual, family, or community, provide direct access to necessary services

The risk of potential harm requires intervention to prevent that harm, which supports the ethical principles of prevention, not causing harm, and promoting good.

Examples of endangerment demanding immediate PHN response:

▪   A client is followed for management of psychotropic medications, and has a disconnected phone. The PHN visits his apartment, talks with the landlord, checks with his family to locate him, and assures his well-being.

▪   A newborn fails to make a reasonable weight gain. The PHN determines the mother is ambivalent and not bonding well with the infant. The PHN arrives for a third visit in a series of planned home visits, hears the baby crying inside the apartment, and no one answers the door. The PHN finds the building manager, convinces him to open the door, and contacts child protection.

▪   A PHN leads a caregiver support group. A participant arrives wearing dark glasses and a scarf covering her head and neck. She excuses her appearance, saying she had been cleaning her mother's house and has dust in her hair and eyes. She seems unable to relax during the group, and lingers after the others leave. She divulges she is afraid to go home, because her boyfriend beats her. He accuses her of having an affair because she is gone much of the time and he refuses to believe that she is caring for her ailing mother. The PHN helps her develop a plan to protect herself, considering all relevant state laws and regulations.

5. Fulfill state law and regulation reporting mandates

Completing mandatory reporting requirements, such as those regarding reportable contagious diseases or indicators of child maltreatment, guides public health experts in the surveillance of health problems and disease and in determining an appropriate public health response.

Example

Nurse Sara Barron noted the delivery of four babies with anencephaly (born without all of or without a major part of the brain) in a short time period at rural, local hospitals in Washington state. She had seen only two previous cases in over 30 years of nursing (Barron, 2016).

1. Identify individuals and families at risk through information from surveillance, disease and health event investigation, and/or outreach

Barron notes the delivery of two babies born with anencephaly through her own surveillance of birth defects, and that this occurrence seems unusual.

2. Connect with formal and informal networks to find those identified as at risk

When talking to a physician who delivers babies, Barron learns he has another patient expecting a similar outcome. When talking to colleagues in hospitals in the area, she learns that two other babies were born recently with anencephaly.

3. Initiate activities providing information about the nature of the risk, possible solutions, and service attainment

Barron calls the Washington State Department of Health to report the birth defect cluster. When investigators looked into the problem, they find 23 cases of anencephaly across three counties in Washington, a rate of 8.4 per 10,000 live births (four times higher than the national average).

4. If the level of risk suggests endangerment to the individual, family, or community, provide direct access to necessary services

To address coping with grief and possible genetic problems, the PHN ensures that families that have a baby with a neural tube defect have access to counseling. Counseling about the importance of folic acid intake is important for all women of childbearing age, and Hispanic women are particularly at risk because they favor corn products that may not be fortified with folic acid; their risk for pregnancy resulting in a neural tube defect is twice the rate of non-Hispanic white women.

5. Fulfill state law and regulation reporting mandates

> In August 2000, the Washington State Board of Health approved a revised list of congenital abnormalities notifiable by law to public health authorities under Chapter 246-101 of the Washington Administrative Code. Among these were nine birth defects (Washington State Department of Health, 2018).

This includes anencephaly, defined as "a birth defect that affects the growth of a baby's brain and skull bones that surround the head" (Washington State Department of Health, 2018).

Key points from evidence

For a description of evidence levels, visit: **Introduction**: Overview of evidence-based practice and related topics.

■ 1. Case-finding intervention categories

CDC identifies three categories of case-finding interventions for birth defects:

Active case-finding: Staff members continually review medical records from health care facilities in a geographic area

Passive case-finding with confirmation: There is an agreement to received report about birth defect cases from health care facilities. The reports are reviewed and there is verification of the diagnosis.

Passive case-finding: Reports from health care facilities are received, but there is no follow-up to confirm diagnoses.

Level 4 source:

▪ Centers for Disease Control and Prevention, 2017

2. Settings for active case-finding

Settings for conducting active case-finding include voluntary counseling and testing centers, homeless shelters, prisons, nursing homes, and impoverished areas. When resources are limited, symptom screening in clinical community settings is efficient.

Level 5 source:

- Golub, Mohan, Comstock, & Chaisson, 2005

3. Stepped care case-finding

For delivering care following exposure to a natural disaster, a case-finding stepped care model calls for screening and triage to the appropriate level of care (cognitive behavioral therapy or skills for psychological recovery), followed by ongoing systematic reevaluation. In a simulation that compared the initial triage approach versus usual care for post-traumatic stress disorder after a natural disaster, the stepped-care approach found more cases, resulted in more effective treatment, and was cost-effective.

Level 2 source:

- Cohen et al., 2017

4. Case-finding for tuberculosis

A review of case-finding for tuberculosis identified the following as intended outcomes and strategies of measurement of effectiveness of a case-finding program:

- Using prevalence surveys before and after a case detection program.
- Measuring delays in diagnosis before and after a case detection program.
- Monitoring treatment completion to ensure high completion rates among newly detected patients.
- If more than one intervention aimed at reducing TB incidence is implemented, assessment should allow for separation of the intervention effects.
- Reduction in incidence is the goal.

Level 5 source:

- Golub et al., 2005

5. Case-finding to improve early detection and increase access to care

A case-finding community project in Ireland aimed to improve early detection of chronic health conditions and increase access to primary care and nursing services. Over 350 people attended 17 health fairs in a variety of Belfast venues, and 115 people were identified with respiratory, cardiac, diabetes, and hypertension risk factors. Attendees had their weight, waist, blood pressure, and blood sugar measured and received materials that focused on health promotion. In follow-up, a district nurse practitioner provided health assessments to 109 people and made 97 referrals to other health professionals and agencies. Through the health fair strategies, those most at risk were identified and referred to needed services.

Level 3 source:

- Kane, 2008

6. Using apps for sexually transmitted infection (STI) case-finding

The use of smartphone apps in case-finding for sexually transmitted diseases (STIs) can enhance traditional case-finding strategies for STIs.

Level 3 source:

- Pennise, Inscho, & Herpin, 2015

7. Using brief and evidence-based case-finding tools

A review of common tools for case-finding of depressive disorders in older adults recommended brief and evidence-based case-finding tools. Using several measures increases the sensitivity and specificity of results.

Level 5 source:

- Roman & Callen, 2008

8. Identifying potential clients with case-finding

Five stages of case-finding to identify clients who will benefit from case management are:

a. **Scoping**: Estimating the expected number of clients
b. **Searching**: Basing on clear case-finding criteria
c. **Adapting to capacity**: Consideration of which patients can be accommodated
d. **Screening**: Determining whether client is appropriate for case management
e. **Enrolling**: Starting services for clients who can benefit from the program

Level 5 source:

- Toofany, 2008

Wheel notes

Critical thinking

Case-finding goes beyond following a checklist. Kennedy stated,

> Nurses at the point of care are usually the first to take stock of a patient's problems. But how often do we do it by habit, following a checklist without the mindfulness that might lead us to ask other, more important questions? Often, the crucial question is not "What's the problem?" but

"What's been happening?" It makes a huge difference when nurses apply critical thinking skills to assessment. (Kennedy, 2016, p. 7)

Case-finding requires noticing, recognizing patterns, and making connections.

Opportunities

A PHN, always vigilant and watching for actual or potential threats to health, may unexpectedly come across case-finding opportunities, events, or observations. These are cues for further assessment and, perhaps, identification of new cases (for more information, visit **disease and health event investigation**)

References

Barron, S. (2016). Anencephaly: An ongoing investigation in Washington state. *American Journal of Nursing, 116*(3), 60-66.

Centers for Disease Control and Prevention. (2017). *Birth defects: State-based tracking systems*. Retrieved from https://www.cdc.gov/ncbddd/birthdefects/states/

Cohen, G. H., Tamrakar, S., Lowe, S., Sampson, L., Ettman, C., Linas, B., et al. (2017). Comparison of simulated treatment and cost-effectiveness of a stepped care case-finding intervention vs usual care for posttraumatic stress disorder after a natural disaster. *JAMA Psychiatry, 74*(12), 1251-1258. doi: 10.1001/jamapsychiatry.2017.3037

Golub, J. E., Mohan, C. I., Comstock, G. W., & Chaisson, R. E. (2005). Active case finding of tuberculosis: Historical perspective and future prospects. *International Journal of Tuberculosis and Lung Disease, 9*(11), 1183-1203.

Kane, K. (2008). Case-finding in the community: The results 2. *British Journal of Community Nursing, 13*(6), 265-269.

Kennedy, M. S. (2016). Asking more questions: The importance of case finding. *American Journal of Nursing, 116*(3), 7.

Pennise, M., Inscho, R., Herpin, K. (2015). Using smartphone apps in STD interviews to find sexual partners. *Public Health Reports, 130*, 245-252.

Roman, M. W. & Callen, B. L. (2008). Screening instruments for older adult depressive disorders: Updating the evidence-based toolbox. *Issues in Mental Health Nursing, 29*, 924-941. doi: 10.1080/01612840802274578

Self, B. & Peters, H. (2005). Street outreach with no streets. *Canadian Nurse, 101*(1), 20-24.

Toofany, S. (2008). Where are the cases? *Primary Health Care, 18*(3), 36-39.

Washington State Department of Health. (2018). *Birth defects*. Retrieved from https://www.doh.wa.gov/YouandYourFamily/IllnessandDisease/BirthDefects
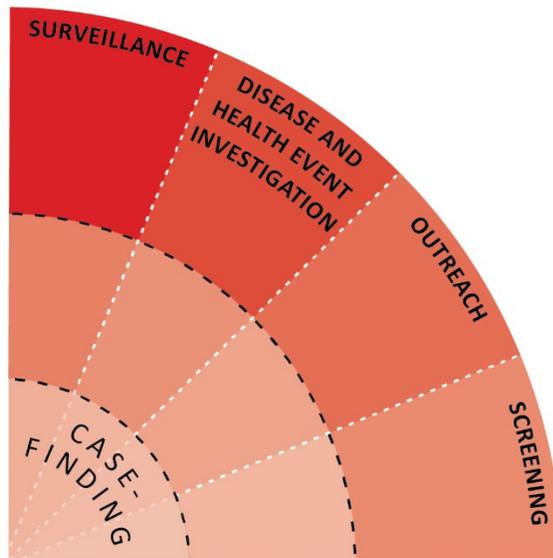
In review

A story:

The Sage Screening Program in Minnesota provides wellness screening and early detection of breast, cervical, and colorectal cancers. Eligible persons, based on age, insurance, and income criteria, obtain free screening. The Sage Program sponsors screening events and completes targeted outreach to find and enroll clients into the program. Direct mail materials, a financial incentive ($20), and patient navigation (help finding health care resources) increases targeted screening for these cancers. The Sage Program offers breast and cervical cancer screening at over 450 clinic sites in Minnesota to more than 150,000 women (Minnesota Department of Health, 2018).

In one of these sites, a tri-city public health department, a senior public health nursing student provided wellness screening services for blood glucose and high cholesterol in the Sage Program along with her public health nurse preceptor. The program offered additional health testing along with cancer screening. The student captured her experience:

> Part of the screening consisted of checking total (fasting) cholesterol and blood glucose levels. I did a finger stick to draw up a drop of blood into a little plastic case that fit into a machine, which would give us the

cholesterol and glucose results in about five minutes. After we had the results, I entered the data into a computer program created by the Centers for Disease Control and Prevention (CDC) that analyzes and creates a bar graph and written description of the results that are very easy for the average nonmedical person to understand and learn from. It also generates a diagnostic referral form if any test result is too high. This form can then be faxed to a health care provider immediately, with no other data needing to be added.

When I had printed out the report, I went over it in great detail with my client, asking her to stop me if she needed additional clarification or had any other questions. She was able to verbalize a general understanding of her results. The computer program had created a referral form for her to be evaluated by a physician because of high cholesterol, and she requested that my preceptor set up an appointment for her. My preceptor will follow up with the woman in two weeks to find out whether she has kept the doctor appointment and whether she wants to participate in the lifestyle interventions and counseling services that are also offered at the clinic. (Schoon, Porta, & Schaffer, 2019, p. 306)

The Sage Program expanded to offer colorectal screening at eight sites, via a sub-program called Sage Scopes. Minnesota received funding (one of 25 states and four tribes) from CDC to offer targeted colorectal cancer screening through the Sage Scopes Program (Minnesota Department of Health, 2018). According to *Minnesota Cancer Facts and Figures 2015*, 25 percent of Minnesota residents have never had screening for colorectal cancer. Colorectal cancer is the third most common cancer for men and women. Colorectal cancer incidence is particularly high among Minne-sotan American Indians, nearly twice the U.S. rate. The White Earth Health Center, a federal health program for American Indians and one of the Sage Screening Program sites, offers free colorectal screening. Colorectal cancer screening effectively finds polyps, precursors of cancer, that when removed prevent cancer from developing.

Consider how the red wedge interventions (surveillance, disease and health event investigation, outreach, and screening at the community and systems levels, and case-finding at the individual level) occur from the perspectives of: 1) the student experience with wellness screening in the Sage Program, and 2) the services provided by the Sage Scopes Program for colorectal cancer screening.

Application questions

Level of practice

1. What examples of the individual level of case-finding occur in this story?
2. Give one example of community-level practice and one example of systems-level practice for any of the red wedge interventions.

Surveillance

3. What is known about the natural history of colorectal cancer that contributes to the decision to use the intervention of surveillance (consider incidence and who is at risk)?

Disease and health event investigation

4. What data is important to collect and present to provide justification for continued funding for the Sage Program?

Outreach

5. What strategies could public health nurses use to develop trusting relationships in an at-risk community to encourage obtaining colorectal screening?
6. What are public health nursing's assumptions about cancer screening? To what extent are those assumptions shared by communities and populations most impacted by colorectal cancer?
7. To what extent does the ability of those screened to access follow-up medical care impact the ability of a public health nurse to successfully recruit screening participants?

Screening

8. How is the Sage Program consistent with the goals of screening?
9. What population groups should be prioritized for colorectal screening?
10. How might the red wedge interventions indicate if a health inequity is occurring among Sage Program participants?

References

Minnesota Department of Health. (2015). *Minnesota cancer facts and figures 2015*. Retrieved from https://www.health.state.mn.us/communities/environment/tracking/docs/cancerfandf.pdf

Minnesota Department of Health. (2018). *Who we are: Sage screening programs*. Retrieved from https://www.health.state.mn.us/diseases/cancer/sage/about/index.html

Schoon, P. M., Porta, C. M., & Schaffer, M. A. (2019). *Population-based public health clinical manual: The Henry Street model for nurses, 3rd ed*. Indianapolis, IN: Sigma Theta Tau International Society of Nursing.

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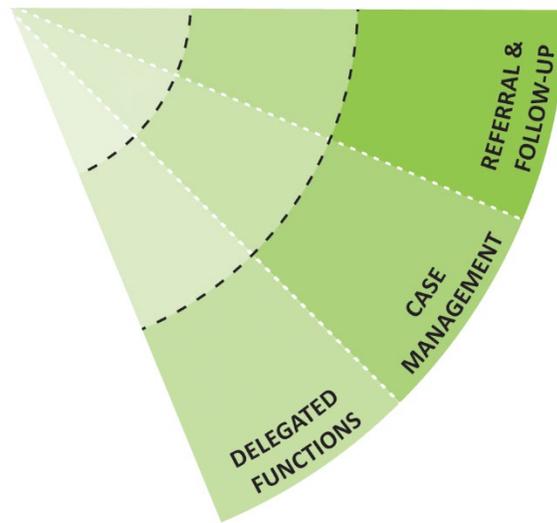
Referral and follow-up

Referral makes a connection to necessary resources to prevent or resolve problems or concerns. Follow-up assesses outcomes related to the utilization of the resources.

Referral includes the development of and the connection to resources for the individual/family, community, or system. The key to a successful intervention is follow-up; making a referral without evaluating its results is ineffective and inefficient.

Practice-level examples

Population of interest: Adults experiencing homelessness.

Problem: The U.S. Department of Housing and Urban Development estimated that in December 2017 approximately 554,000 persons experiencing homelessness lived in the United States. Of these a total of 193,000 were living on the streets (Benedict, 2018). Persons experiencing homelessness reveal age-adjusted mortality rates approximately three times that of the general population (Taylor, Kendzor, Reitzel, &

Businell, 2010). Conditions such as hypertension, diabetes, and anemia, often inadequately controlled, remain undetected for long periods (Canadian Observatory on Homelessness, 2017). Unsheltered individuals experiencing homelessness exhibit vulnerability to temperature related injuries. In cold weather conditions, risk of frostbite occurs but even above freezing temperatures bring risk for injury in combination with wetness. Immersion foot (alterations in skin and sensation resulting from cold and wet conditions) appears not uncommonly among persons living in these conditions (Carpenter, 2007).

Systems level

A significant homeless population, as well as organizations providing services to them, resides in an urban downtown in a mid-sized metropolitan area. This area is also home to a group of mainline churches. Part of an interfaith coalition, these churches house the service organizations and seek solutions to end homelessness. Faith community nurses volunteering with the member congregations in the coalition form a subgroup to coordinate and develop health care services and programs for persons experiencing homelessness. The subgroup developed a referral protocol facilitating referrals to the health care services and programs. The group disseminated the protocol to all the churches and service organizations in the interfaith coalition, and followed-up to address any challenges to the use of the protocol.

Community level

Faith community nurses, partnering with an area baccalaureate school of nursing, volunteer at a large urban congregation housing a clinic for persons experiencing homelessness. The nurses observe that, especially during the cold, wet winter months, immersion foot appears as one of the most common conditions resulting from long hours spent on the streets in wet footwear and socks. The faith community nurses sponsor a fundraiser, "Sock Sunday," encouraging congregational members to donate new socks for distribution at the clinic and other community organizations serving persons experiencing homelessness. At the clinic, faith community nurses advertise the availability of the new socks and follow up with community organizations regarding challenges and successes in the distribution of socks, and with the clinic staff to review immersion foot incidence over the winter months.

Individual/family level

Faith community nurses help staff a clinic for persons living with homelessness in conjunction with the baccalaureate school of nursing. Faith community nurses provide foot care and access to dry clean socks and footwear. They also assess clients for chronic health conditions and, if clients are interested, provide referrals for needed medical care, smoking cessation, and alcohol treatment. Faith community nurses request contact information for referral follow-up.

Relationship with other interventions

Referral and follow-up most often proceed from the implementation of another intervention, such as **health teaching**, **counseling**, **delegated functions**, **consultation**, **screening**, and **case-finding** (as related to **surveillance**, **disease and health event investigation**, or **outreach**). It is also an important component of **case management**. On occasion, it is implemented in conjunction with **advocacy**.

Basic steps: Community/systems level

REFERRAL

1. Use links with other providers, organizations, institutions, and networks to monitor the community's capacity to provide the resources and services for populations at risk

Seeking and maintaining links will convince community partners of the need for referral resources.

- The public health nurse (PHN) may use **social marketing**, **health teaching**, **collaboration**, and/or **coalition-building** to create a compelling reason why other community partners would want to become involved in developing resources.
- For example, in a faith community, the PHN may need to first explain how faith community members would benefit.
- In another example, if community businesses are viewed as important to develop referral resources, they will need to see how it would benefit their customers and their bottom line.

REFERRAL

2. Produce strategies for services and resources development

There may be gaps in the process of connecting to referral resources, as well as the need to develop specific resources to meet community needs.

- It is important for the PHN to share their extensive knowledge of the special needs and unique characteristics of target populations with those in the community who are considering developing resources or services.
- Public health nurses may work with local businesses, community service organizations (such as the Lions, Rotary, or the Business and Professional Women Foundation), other health care providers, housing agencies, nonprofit agencies, and others.

- The PHN may need to explore how other communities have addressed similar needs, determined what grants are available, have known what their own agency's contribution could be, and generated an initial list of strategy ideas.

REFERRAL

3. Participate in implementing those strategies selected consistent with the public health agency mission and goals

Public health nurses' extensive knowledge of the target populations is critical to building the case for changing agency services and implementing selected strategies.

- Depending on gaps in services and resources as identified in the community assessment, the public health agency may or may not decide to alter services and resources offered.
- The health board for the agency makes those determinations based on the extent to which the needs fit with the agency's mission and overall plan.

FOLLOW-UP

4. Evaluate strategy effectiveness of developing needed services and resources

The large number of referrals PHNs make and receive place them in a good position to observe how referral systems function and those systems' strengths and weaknesses.

- Developing objective ways to gather this data contributes to the evaluation process.
- For example, critical feedback areas for evaluation include information on the average number of contacts required for completing a referral, barriers encountered, and observations on what worked well.

Example: Community/systems level

Faith community nurses identified that parishioners sometimes did not complete the referral process.

1. Use links with other providers, organizations, institutions, and networks to monitor the community's capacity to provide the resources and services for populations at risk

Based on feedback collected from parishioners, faith community nurses discern that lacking transportation to primary care providers is a barrier to referral completion.

Many parishioners no longer drive or are too frail to use available public transportation. The faith community nurse network conducts a survey of most frequently used primary care providers to determine their policies and resources on transportation assistance; they conclude that most have no policies other than charging clients fees for missed appointments.

2. Produce strategies for services and resources development

The FCN network identifies transportation resources in the community and develops an online resource document.

3. Participate in implementing those strategies selected consistent with the public health agency mission and goals

In many cases, the parishioners' own faith community has a group willing to provide transportation to medical appointments. In others, a fund is available to support taxi or Uber/Lyft services.

4. Evaluate strategy effectiveness of developing needed services and resources

The FCN network reviews data regarding transportation needs at its regular meetings.

Basic steps: Individual/Family Level

The referral process facilitates linking the individuals/families with services or resources required to improve population health. The following steps were adapted from a tool provided in a manual developed for the Agency for Health Research and Quality, AHRQ health literacy universal precautions toolkit (Brega et al., 2015).

REFERRAL
1. Establish resource referral arrangements

Establish and maintain a working relationship with departments and agencies and organizations that receive referrals.

- Explore with each organization the required referral information and preference for receiving referrals.
- Establish a process for sharing client information and any related restrictions.

REFERRAL
2. Determine who initiates the referral

- Assure that the client agrees with the referral and understands the rationale. Discuss how the referral supports the client's goals. Collaborate with the client on initiating the referral process.
- Arranging for needed resources can be daunting process, especially if a client is unfamiliar with resource networks. Action needed may be beyond a client's perception of their capabilities, requiring PHN involvement.
- Identify supports, if any, needed to accomplish the referral (e.g., arranging for transportation, translator, childcare, funding).

REFERRAL
3. Assist client in anticipating referral resource response and maximizing resource interaction

Preparation and rehearsal promote clients' perceptions of self-capacity.

- If the client agrees, work with them to prepare a list of questions ahead of time.
- If needed, rehearse anticipated interactions with the client.

REFERRAL
4. Inquire about and address client reservations or fears

Client hesitancy or resistance may stem from their previous experiences or perceptions.

REFERRAL
5. Establish how and what referral-related information the public health nurse receives from the client

A plan is needed to determine the response to the referral.

- Various state and federal data privacy laws regulate the amount and types of client information may be shared.
- Often a document signed by the client is required specifying this information.

FOLLOW-UP
6. Confirm and document referral status

Confirmation determines whether further action is needed. Documentation establishes a record of referral status.

More than one attempt may be required to complete the process, especially for referrals involving multiple appointments or connections.

FOLLOW-UP

7. If the client has not completed the referral, reinforce the benefits and review barriers

- Not all barriers can be anticipated, such as vehicle breakdowns, sudden unavailability of childcare, technical difficulties, or limited capacity.
- Clients may require additional anticipatory guidance and supports.

FOLLOW-UP

8. Obtain feedback on referral results

Feedback determines whether further action is needed.

- Confirm that client receives and understands the results of any screenings or assessments that occurred and any further action needed.
- Data privacy laws may regulate this process.

FOLLOW-UP

9. Obtain feedback from clients on referral resource quality

Consistent or repeating concerns may call for a quality improvement approach.

Example: Individual/family level

The following example is adapted from a Million Hearts collaboration in Washington County, Maryland involving the county health department, a medical center, and network faith community nurses supported by the medical center.

The faith community nurses recruited 119 parishioners who either were known to have hypertension or at-risk for hypertension. The faith community nurses provided screening and health coaching in a series of four face-to-face meetings over three months. Of the 109 who completed the program, 18 received referrals to primary care providers for treatment. Overall, participating parishioners achieved a significant reduction in blood pressure readings and improved lifestyle satisfaction scores. The only difference between those referred to primary care and those not referred was diastolic blood pressure, which was higher in the participants who were referred (Cooper & Zimmerman, 2017).

1. Establish resource referral arrangements

Faith community nurses use the referral criteria established by the Million Hearts referral criteria protocol.

2. Determine who initiates the referral

The faith community nurse clarifies the reason(s) for the referral with the parishioner, discussing the pros and cons of seeing a primary care provider.

3. Assist client in anticipating referral resource response and maximizing resource interaction

The faith community nurse discusses what would likely transpire during the appointment and the expected outcomes or next steps.

4. Inquire about and address any client reservations or fears

During the discussion, the faith community nurse explores any perceptions or concerns the parishioner might hold that could serve as barriers to acting on the referral.

5. Establish how and what referral-related information the public health nurse receives from the client

The faith community nurse provides written information for the parishioner to take to the appointment, including a release of information form and a brief statement of the services available from the faith community nurse.

6. Confirm and document referral status

No more than a week after the appointment date, the faith community nurse contacted the parishioner regarding action on the referral.

7. If the client has not completed the referral, reinforce the benefits and review barriers

The faith community nurse helps the parishioner identify barriers and access resources to address them. This may include arranging for transportation, accompaniment, or translation.

8. Obtain feedback from clients on referral resource quality

At the next face-to-face meeting with the parishioner, the faith community nurse reviews the results of the PCP appointment and assesses the parishioner's understanding and expected next steps.

9. Obtain feedback from clients on referral resource quality

If concerns occur consistently, the faith community nurse provides the supporting data to the faith community nurse network and coordinator to discern if it is a systems issue or provider-specific, and designs appropriate actions.

Key points from evidence

For a description of evidence levels, visit: **Introduction**: Overview of evidence-based practice and related topics.

1. Importance of relationships

Develop relationships with referral resources to ensure those referred will be well-received.

Level 2 sources:

- Cooper & Zimmerman, 2017
- Strass & Billay, 2008

Level 4 source:

- Brega et al., 2015

Level 5 source:

- Ezeonwu & Berkowitz, 2014

2. Developing client receptiveness

Client receptiveness toward responding to a referral more likely when the PHN:

- Assesses client readiness to change
- Assists client to see discrepancies between the current and desired states
- Listens reflectively
- Asks open-ended questions
- Refrains from directly countering statements of resistance
- Restates positive or motivating statements made by the client
- Acknowledges the client as an active participant in the referral process
- Acts quickly to contact a client referred for public health services

Level 2 source:

- Flaten, 2011

Level 4 source:

- American Public Health Association & Education Development Center, Inc., 2008

3. Resistance to following up

Resistance to following up on referral recommendations is often related to:

- Lack of health insurance, or high-deductible health insurance
- Lack of timely available appointments
- Long provider wait times
- Competing demands for time
- Lack of language parity with provider

Level 1 source:

- Olmos-Ochoa, 2017

4. Referral and follow-up after screening

Referral and follow-up is the natural next step after screening, when screening results indicate presence of a risk factor, disease, or illness. Examples for implementing referral steps based on specific types of screening are:

- Individuals at risk for excessive alcohol or drug use
- Health fairs
- Postpartum depression

Level 3 sources:

- Lucky, Turner, Hall, LeFaver, & de Werk, 2011
- Olmos-Ocha, 2017
- Sword, Busser, Ganann, McMillan, & Swinton, 2008

Level 4 source:

- APHA, 2008

Level 5 source:

- Finnell et al., 2014

5. Improving quality of life with referral, follow-up, and other interventions

Referral and follow-up, used together with other interventions, resulted in improved quality of life among older populations living in the United States and other countries.

Level 2 source:

- Schaffer, Kalfoss, & Glavin, 2017

6. Increasing completion by explaining referral process

A patient navigator in an urban primary care pediatric clinic in Philadelphia met with families whose children were referred for developmental delays, to explain the referral process for an early intervention program and assist families in seeking services. This intervention contributed to a 79 percent referral completion rate by the families.

Level 3 source:

- Guevara et al., 2016

7. Low health literacy

Parents with low health literacy had difficulty with the referral process to early intervention for their children; the parents reported confusion and contact problems. Strategies to address low health literacy may contribute to referral success.

Level 3 source:

- Jimenez, Barg, Guevara, Gerdes, & Fiks, 2013

Wheel notes

Public health nursing wisdom

In April 1962, Ilse Wolff wrote that to be effective, referrals must be timely, merited, practical, tailored to the client, client-controlled, and coordinated. At the end of her article, Wolff concludes:

> [E]ven the simplest form of referral requires that the public health nurse know exactly what she is talking about, that she make sure how the referral she has made strikes home and whether it is understood in all of its implications. In this sense, even the most factual form of referral involves much more than writing an address on a piece of paper and handing it to the patient or some member of his family (p. 253).

Information and referral

Many local health departments provide information and referral services to the public. Community members unsure whom to contact often connect with the local health department. In smaller local health departments, PHNs may share in offering information and referral services.

Making referrals easy

In Boston, HelpSteps, a web-based interface, connects individuals to health and human services resources. Boston Children's Hospital and the Boston Public Health Commission jointly developed HelpSteps (Fleegler et al., 2016).

The Agency for Healthcare Research and Quality (AHRQ) offers a tool, Make referrals easy (tool #21), with links to other tools for making referrals; readers can find this tool within Health literacy universal precautions toolkit (2nd ed.) (Brega et al. 2015).

References

American Public Health Association & Education Development Center, Inc. (2008). *Alcohol screening and brief intervention: A guide for public health practitioners*. Washington DC: National Highway Traffic Safety Administration, U.S. Department of Transportation. Retrieved from https://www.integration.samhsa.gov/clinical-practice/alcohol_screening_and_brief_interventions_a_guide_for_public_health_practitioners.pdf

Benedict, K. (2018). *Estimating the number of homeless in America*. San Francisco, CA: The DataFace, LLC. Retrieved from http://thedataface.com/2018/01/public-health/american-homelessness

Brega, A. G., Barnard, J., Mabachi, N. M., Weiss, B. D., DeWalt, D. A., Brach, C., et al. (2015). Tool 21: Make referrals easy. In *Agency for Health Research and Quality, Health Literacy Universal Precautions Toolkit, Second Edition*. AHRQ Publication No. 15-0023-EF. Rockville, MD: Agency for Healthcare Research and Quality. Retrieved from https://www.ahrq.gov/professionals/quality-patient-safety/quality-resources/tools/literacy-toolkit/healthlittoolkit2-tool21.html

Canadian Observatory on Homelessness. (2017). *Homeless Hub: Chronic illnesses/diseases and mortality*. Toronto Canada: York University. Retrieved from http://homelesshub.ca/about-homelessness/health/chronic-illnessesdiseases-and-mortality

Carpenter, D. (2007). Homeless health care case report: Trench foot. *National Health Care for the Homeless Clinical Practice Resources 3*(2). Retrieved from http://www.nhchc.org/wp-content/uploads/2012/01/CaseReportTrenchFoot062707.pdf

Cooper, J. & Zimmerman, W. (2017). The effect of a faith community nurse network and public health collaboration on hypertension prevention and control. *Public Health Nursing, 34*, 444-453. doi: 10.1111/phn.12325

Ezeonwu, M., & Berkowitz, B. (2014). A collaborative communitywide health fair: The process and impacts on the community. *Journal of Community Health Nursing, 31*, 118-129. doi: 10.1080/07370016.2014.901092

Finnell, D., Nowzari, S., Reimann, B., Fischer, L. Pace, E., & Goplerud, E. (2014). Screening, brief intervention, and referral to treatment (SBIRT) as an integral part of nursing practice. *Substance Abuse, 325*, 114-119. doi: 10.1080/08897077.2014.888384

Flaten, C. (2011). Connecting antepartum teens from a federal food program to a public health nursing agency: a process-improvement project. *Western Journal of Nursing Research. 33*(1), 144-145.

Fleegler, E. W., Bottino, C. J., Pikcilingis, A., Baker, B., Kistler, E., & Hassan, A. (2016). *Referral system collaboration between public health and medical systems: A population health case report*. NAM Perspectives. Discussion Paper, National Academy of Medicine, Washington, DC. doi: 10.31478/201605f Retrieved from https://nam.edu/referral-system-collaboration-between-public-health-and-medical-systems-a-population-health-case-report/

Guevara, J. P., Rothman, B., Brooks, E., Gerdes, M., McMillon-Jones, F., & Yun, K. (2016). Patient navigation to facilitate early intervention referral completion among poor urban children. *Families, Systems, & Health, 34*(3), 281-286. doi.org/10.1037/fsh0000207

Jimenez, M. E., Barg, F. K., Guevara, J. P., Gerdes, M., & Fiks, A. G. (2013). The impact of parental health literacy on the early intervention referral process. *Journal of Health Care for the Poor and Underserved, 24*, 1053-1062.

Lucky, D., Turner, B., Hall, M., LeFaver, S., & de Werk, A. (2011). Blood pressure screenings through community health fairs: Motivating individuals to see health care follow-up. *Journal of Community Health Nursing, 28*, 119-129. doi: 10.1080/07370016.2011.588589

Schaffer, M. A., Kalfoss, M., & Glavin, K. (2017). Public health nursing interventions to promote quality of life in older adult populations: A systematic review. *Journal of Nursing Education and Practice, 7*(11), 92-106. doi: 10.5430/jnep.v7n11p92

Strass, P. & Billay, E. (2008). A public health nursing initiative to promote antenatal health. *Canadian Nurse 104*(2), 29-33.

Sword, W., Busser, D., Ganann, R., McMillan, T., & Swinton, M. (2008). Women's care-seeking experiences after referral for postpartum depression. *Qualitative Health Research, 18*(9), 1161-1173. doi: 10.1177/1049732308321736

Taylor, R., Kendor, D., Reitzel, L., & Businelle, M. (2016). Health risk factors and desire to change among homeless adults. *American Journal of Health Behavior, 16*(4), 455-460. doi: org/10.5993/AJHB.40.4.7

U.S. Department of Health & Human Services. (2018). *MillionHearts*. Retrieved from https://millionhearts.hhs.gov/

Wolff, I. (1962). Referral—a process and a skill. *Nursing Outlook, 10*(4), 254-256.
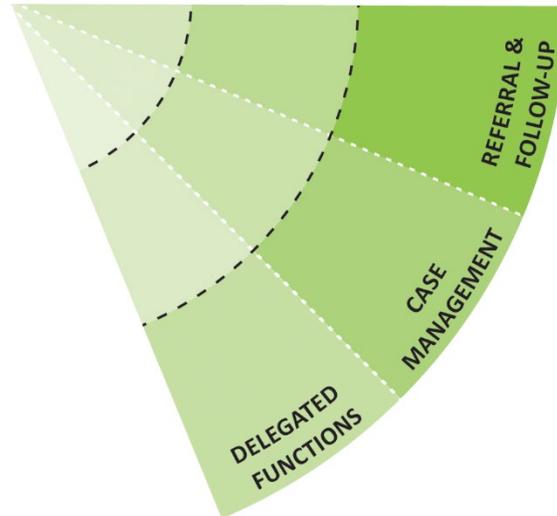
Case management

Case management is a collaborative process of assessment, planning, facilitation, care coordination, evaluation, and advocacy for options and services to meet client needs. It uses communication and available resources to promote safety, quality of care, and cost-effective outcomes.

Case management activities aim to achieve the following outcomes (Case Management Society of America, 2016):

- Increased self-care capabilities of clients
- Efficient use of resources
- New services where needed
- Quality care along a continuum of service delivery
- Decreased fragmentation of care across settings
- Enhanced quality of life
- Cost containment

Practice-level examples

Population of interest: School-aged children with a diagnosis of asthma or presence of asthma risk factors.

Problem: Poorly controlled or undiagnosed asthma in school-aged children impairs ability to attend school, affects academic performance, and impacts parents who miss work in order to care for an ill child.

Systems level

The school nurse engages the school board's School Health Advisory Committee to develop a comprehensive set of asthma related policies utilizing the National Heart, Lung, and Blood Institute's document, *Managing Asthma: A Guide for Schools* (2014). The school nurse begins with the document's assessment tool, which provides a checklist of family/staff activities and resources used in asthma case management, How asthma-friendly is your school? (National Heart, Lung, and Blood Institute, 2014).

Community level

At a regional meeting, school nurses identify parental indifference to providing and maintaining asthma action plans. The group brainstorms and develops a plan to hold a series of "asthma update" meetings for parents in conjunction with the local chapter of the American Lung Association and a pediatric nurse practitioner specializing in asthma management. Part of the meeting content focuses on the importance of the asthma action plan.

Individual/family level

A family new to the community enrolls their second-grade son in his new school midway in the school year. The father reports that his son, recently diagnosed with asthma, has difficulty participating in activities requiring physical exertion, and uses an inhaler. The school nurse initiates developing an individualized health care plan and emergency action plan that incorporates an asthma action plan. The school nurse refers the family to a community clinic and assists in establishing an appointment. Following the appointment, the school nurse follows up with the provider and the parent to develop the asthma action plan, which includes a list of environmental triggers.

Relationship with other interventions

Case management is often implemented in conjunction with or in sequence to other interventions. Primary among these is **referral and follow-up**. Case management presumes the involvement of other providers or organizations; the process of engaging them is referral. Making sure that the referral arrangements happen is follow-up.

Case management is often preceded by **surveillance**, **disease and health event investigation**, **outreach**, **screening**, and **case-finding**. Implementing case management frequently relies on **health teaching**, **counseling**, **consultation**, **advocacy**, and **collaboration**. Case management often leads to advocacy and collaboration at the community and systems levels when needed services are not available in a community.

Basic steps

Case management aims to improve the coordination of client services coordination by reducing fragmentation across multiple service providers, resulting in enhanced well-being and quality of life. Protocols for case management vary across settings and level and population(s) served. For instance, case management provided by a school nurse at the individual level focuses on optimizing a child or adolescent's capacity to learn. Case management provided by public health nurses (PHNs) working with the frail elderly population at the community level focuses on promoting safety and chronic disease monitoring. Case management by occupational health nurses at the systems level focuses on workplace risk reduction and promoting a healthy work environment.

Regardless of level, the steps or process of conducting case management remain constant. The following steps are adapted from *Standards of practice for case management practice, revised* by the Case Management Society of America (2016), which essentially parallel the nursing process:

1. Select engaged clients

It is important that clients be engaged in the case management process.

Every organization has a set of criteria determining program eligibility. Organizational vision, mission, and funding sources mandates drive the criteria. Three important elements to keep in mind:

- Clients assent and engagement is required as the ultimate goal of self-management.
- Not every client needs case management; discern those who want case management but do not need it, versus those who need it but do not want it.
- When clients do not meet enrollment criteria, every effort should be made to refer them to appropriate community resources (for more information, visit **referral and follow-up**).

2. Assess the client

Gathering holistic data relevant to the client provides the foundation for planning.

Gather necessary information regarding the client's circumstances, to develop a case management plan of care. Information-gathering establishes the client-PHN trust relationship, and reveals clients' understanding of their circumstances and their engagement capacity. Assessment requires effective communication skills, such as

open-ended questions, active listening, meaningful conversation, and motivational interviewing.

a. Analyze assessment findings and determine self-management issues, barriers, and/or gaps in services, to help identify care needs. This includes analyzing formal and informal caregiver support networks involved in clients' circumstances.
b. Repeat assessment as needed to determine the efficacy of the case management plan of care and clients' progress toward achieving target goals.
c. For a systematic comprehensive assessment, consider the social determinants of health, including needs and strengths (such as living conditions, income adequacy, access to groceries, transportation, neighborhood safety, and community assets); behavioral health, including substance use and abuse; and levels of vulnerability.

3. Develop a plan

Reaching goals requires client engagement and a thorough, thoughtful discussion of clear expectations for the case management role.

The case management plan documents activities, responsible parties (person and service organization), and timelines.

The process includes:

- Specifying care requirements, barriers and opportunities for collaboration with the client, and members of the interprofessional care team in order to provide effective integrated care
- Identifying goals and/or expected outcomes
- Identifying interventions or actions needed to reach the goals

4. Implement the plan

Effective implementation requires tracking and synchronizing "moving parts."

- Success typically requires a list of ready alternative resources should any of the component parts fail.
- Facilitating the coordination of care, services, resources, and health teaching specified in the planned interventions puts the case management plan into action.
- Effective care coordination requires diligent communication and collaboration with the client, as well as with the provider and the entire interprofessional health care team.

5. Monitor and evaluate plan effectiveness and acceptability

Inevitable changes in client status drives associated plan changes.

- Sometimes payment sources direct frequency of plan evaluation.
- In all circumstances, client instability should direct the frequency of evaluation.

▪ Checking in with the client on a regular basis to ascertain status, goals, and outcomes assures goal attainment. Monitoring activities include:
   a. Assessing client's progress
   b. Evaluating if care goals and PHN interventions remain appropriate, relevant, and realistic
   c. Determining needed revisions or modifications

6. Discontinue intervention

Goal attainment is the criterion for closure.

▪ In all cases, the ultimate goal is self-management, which may be achieved prior to realizing the plan's stated outcomes.
▪ Bringing mutually agreed-upon closure to the client-PHN relationship and engagement occurs when:
   ▪ The client has attained the goals established in the plan of care, or
   ▪ The best possible outcomes are attained, or
   ▪ The needs and desires of the client have changed.

Example

A school nurse in Orange, California and others designed a study to investigate whether second- through sixth-grade children with asthma scored higher in academic achievement and lower in absenteeism when a school nurse provided case management compared to students who did not. [Note: The study's design also illustrates red wedge interventions and the natural progression between those interventions and those of the green wedge (Moricca et al., 2012).]

1. Select engaged clients

Study sample:

▪ Group I (26 students): Students at risk, whose diagnosis cannot be confirmed
▪ Group II (40 students): Students at risk, with confirmed diagnosis who have accepted nurse case management and have been seen by a primary care provider
▪ Group III (76 students): 16 children who have screened positive but did not have asthma upon evaluation by their primary care provider, plus 60 randomly selected students from the 412 students who screened negative

2. Assess the client

For Group II students, the school nurse completes child health histories and reviews current asthma status, including levels of severity and personal best peak expiratory flow, medications, pattern of exacerbation, triggers, and activity restrictions.

3. Develop a plan

The school nurse communicated with each child's parent and primary care provider to develop or update the asthma action plan.

4. Implement the plan

The school nurse shared the asthma action plan and emergency action plan with each child's teachers and others regularly involved with the child.

5. Monitor and evaluate plan effectiveness and acceptability

The school nurse monitors children's absences and visits to the office for asthma symptoms, and regularly checks in with teachers and parents regarding plan effectiveness.

6. Discontinue intervention

With parental approval, it is likely that school nurse case management will continue until the child is mature enough to self-manage.

Example notes

1. The results of this study indicated that students receiving case management services (the intervention in the study) missed one less day of school than those in either control group. There was no difference in academic performance. Authors concluded that, in a population of elementary school Hispanic children in a low-income neighborhood, case management, along with school nurse screening and collaboration with a medical provider "resulted in early identification, referral, and subsequent treatment of students at risk for asthma and may have contributed to reduced absences" (Moricca et al., 2012, p. 109).
2. As to the question of population asthma screening among children, the American Thoracic Association recommended that inclusion with other routine screenings could be useful, but only in schools and populations with higher-than-expected rates of childhood asthma with available resources for diagnosis and treatment (Gerald et al., 2007).

Key points from evidence

For a description of evidence levels, visit: **Introduction**: Overview of evidence-based practice and related topics.

1. Health care utilization and case management

A critique of systematic reviews of health care utilization outcomes shows case management reduces hospital readmissions, lengths of stay, institutionalizations, emergency room visits, and hospital/primary care visits. Intensity of case management required to achieve these reductions remains unknown.

Level 3 source:

- Joo & Huber, 2018

2. Cost savings, cost avoidance, and case management

The following studies suggest that while nurse case management may be more expensive to provide, reduction in use of other services (cost savings) or preventing health issues altogether (cost avoidance) offsets costs in some populations:

- Community-dwelling frail elder population
- Single parents receiving public assistance
- Infants at risk for perinatal hepatitis B virus infection (ensuring they receive post-exposure prophylaxis and follow-up serology)
- Home health care clients
- Homeless clients with latent tuberculosis infection (who were more compliant with medication regimen and more knowledgeable)
- School-aged children with asthma

Level 1 sources:

- Kneipp et al., 2011
- Markle-Reid, Browne, Roberts, Gafini, & Byrne, 2002
- Nyamathi, Christiani, Nahid, Gregerson, & Leake, 2006

Level 2 sources:

- Engelke, Swanson, & Guttu, 2014
- Oeseburg, Wynia, Middel, & Reijneveku, 2009
- Ruiz et al., 2017

Level 5 source:

- Libbus & Phillips, 2009

3. Barriers to case management

A qualitative systematic literature review suggests potential barriers to case management implementation:

- Unclear scope of practice
- Case diversity and complexity
- Insufficient training
- Poor collaboration with other providers
- Client relationship challenges

Level 3 source:

- Joo & Huber, 2017

4. Improved quality of life among the elderly

A review of nurse-led public health interventions demonstrated that case management, along with other public health nursing interventions, contributed to improved quality of life among elderly populations living in the United States and other countries.

Level 2 source:

- Schaffer, Kalfoss, & Glavin, 2017

5. Lack of consensus on relationship between care coordination and case management

Current literature lacks consensus on the relationship between care coordination and case management:

- Case management, sometimes referred to as care coordination (the umbrella or broader term) or care management, improves the management of complex physical, psychological, and/or social problems.
- Care coordination includes the many roles that a case manager may assume and occurs across various care settings.
- Care coordination contains a specialty practice known as case management.

Level 5 sources:

- Ahmed, 2016
- Cary, 2016
- Harris & Popejoy, 2018
- Lamb & Newhouse, 2018

Wheel notes

Case management or care coordination? Impact of the 2010 Affordable Care Act

The 2010 federal statute, the Affordable Care Act (ACA), introduced an incentive for primary care providers to provide "care coordination" as one of five key functions of the "medical home." Other key functions include comprehensive care (mental health and a team-based approach to patient-centered care) that incorporates cultural appropriateness, accessible services, and attention to quality and safety. [For additional information, see 5 key functions of the medical home (Agency for Healthcare Research and Quality, n.d.).] The ACA defined care coordination as:

> [The] deliberate organization of patient care activities between two or more participants (including the patient) involved in a patient's care to facilitate the appropriate delivery of health care services. Organizing care involves marshalling of personnel and other resources needed to carry out all required patient care activities and is often managed by the

exchange of information among participants responsible for different aspects of care (Agency for Healthcare Research and Quality, 2014, p. 3).

The concepts of case management and care coordination overlap. For example, the definition of case management lists care coordination as a one of several actions or processes, while care coordination includes actions that also fall within case management roles.

Since passage and implementation of the ACA, the nursing profession has published several position papers and other documents addressing implementation of care coordination.

- The American Nurses Association (ANA) suggested care coordination is an inherent function of nursing (Camicia et al., 2013). A 2018 book published by the ANA, *Care Coordination: A Blueprint for Action for RNs* (Lamb & Newhouse) provides further explanation.
- Rushton (2015) suggests that care coordination as a concept of the ACA is about achieving care coordination across populations. She proposes a two-step process: 1) Identify high-risk subpopulations within a given larger population; 2) Design specific applications of care coordination that will benefit an entire population.
- In 2014, Edmonds and Campbell conducted a survey of PHNs inquiring to what extent the ACA affected public health nursing practice and applied Rushton's concept of care coordination. They concluded that PHNs make substantial contributions to implementing the ACA through care coordination in conjunction with clinical preventive services, establishment of private-public partnerships, population-heath data assessment, community health assessment, and maternal and child health home visitation.

Professional certifications

Several organizations offer a certification or credential in case management. Eligibility and requirements vary. Specialty practices, such as working with adults with disabilities or insurance companies, offer additional credentialing opportunities.

American Nurses Credentialing Center

Professional nurses only.

- Registered Nurse-Board Certified (RN-BC) credential
- Nursing case management certification (RN-BC)

Commission for Case Manager Certification

Open to a variety of professionals.

- Certified in Case Management (CCM) credential
- Certification guide to the CCM® examination (PDF)

American Case Management Association

Open to registered nurses and social workers.

- Accredited in Case Management (ACM) credential focuses on professionals employed in hospital and health care delivery systems and transitions of care
- ACM™ certification exam

Resources

The following resources provide more detailed information about case management strategies:

- Lamb, G. & Newhouse, R. (2018). *Care coordination: A blueprint for action for RNs*. Silver Spring, MD: American Nurses Association.
- Powell, S. & Tahan, H. (2010). *Case management: A practical guide for education and practice, 3rd ed*. Philadelphia: Lippincott, Williams, & Wilkin.
- Self-Management Resource Center. (2019). *Help your community take charge of its health*. Retrieved from https://www.selfmanagementresource.com/
- Will, S., Arnold, M., & Zaiger, D. (2017). Individualized healthcare plans for the school nurse: A comprehensive resource for school nursing management of health conditions. Forest Lake, MN: Sunrise River Press.

References

Agency for Healthcare Research and Quality. (2014). Chapter 2: What is care coordination? In *Care Coordination Measures Atlas*. AHRQ Pub. No. 14-0037-EF. Retrieved from https://www.ahrq.gov/professionals/prevention-chronic-care/improve/coordination/atlas2014/chapter2.html

Agency for Healthcare Research and Quality. (n.d.). *5 key functions of the medical home*. Retrieved from https://pcmh.ahrq.gov/page/5-key-functions-medical-home

Ahmed, O. (2016). Disease management, case management, care management, and care coordination: A framework and a brief manual for care programs and staff. *Professional Case Management 21*(3), 127-146. doi: 10.1097/NCM.0000000000000147

Camicia, M., Chamberlain, B., Finnie, R. R., Nalle, M., Lindeke, L. L., Lorenz, L., et al. (2013). The value of nursing care coordination: A white paper of the American Nurses Association. *Nursing Outlook* (61), 490-501. doi: org/10.1016/j.outlook.2013.10.006

Cary, A. (2016). Case Management. In M. Stanhope & J. Lancaster (Eds.), *Public health nursing: Population-centered health care in the community, 9th ed*. (pp. 476-502). St. Louis, MO: Elsevier.

Case Management Society of America. (2016). *Standards of practice for case management practice, revised*. Retrieved from http://www.cmsa.org/sopcmcourse/

Edmonds, J., Campbell, L., & Gilder, R. (2016). Public health nursing practice in the Affordable Care Act era: A national survey. *Public Health Nursing 34*(1), 50-58. doi: 10.1111/phn.12286

Engelke, M., Swanson, M., & Guttu, M. (2014). Process and outcomes of school nurse case management for students with asthma. *Journal of School Nursing, 30*(3), 196-205. doi: 10.1177/1059840513507084

Gerald, L., Sockrider, M., Grad, R., Bender, B. G., Boss, L. P., Galant, S. P., et al. (2007). An official ATS workshop report: Issues in screening for asthma in children. *Proceedings of the American Thoracic Society*, (4), 133-141. Retrieved from https://www.thoracic.org/statements/resources/pldd/screeningforasthma.pdf

Harris, R. C., & Popejoy, L. L. (2018). Case management: An evolving role. *Western Journal of Nursing Research, 41*(1), 3-5. doi: 10.1177/0193945918797601

Joo, J. Y.,& Huber, D. (2017). Barriers in case mangers' roles: A qualitative systematic review. *Western Journal of Nursing Research, 40*(10), 1522-1542 online. doi: 10.1177/0193945917728689

Joo, J. Y., & Huber, D. (2018) Case management effectiveness on health care utilization outcomes: A systematic review of reviews. *Western Journal of Nursing Research, 41*, 111-133. Article first published online. doi.org/10.1177/0193945918762135

Kneipp, S. M., Kairalla, J. A., Lutz, B. J., Pereira, D., Hall, A. G., Flocks, A. G., et al. (2011). Public health nursing case management for women receiving temporary assistance for needy families: A randomized controlled trial using community-based participatory research. *American Journal of Public Health, 101*(9), 1759-1768. doi: 10.2105/AJPH.2011.300210

Lamb, G., & Newhouse, R. (2018). *Care coordination: A blueprint for action for RNs*. Silver Spring, MD: American Nurses Association.

Libbus, M., & Phillips, L. (2009). Public health management of perinatal Hepatitis B virus. *Public Health Nursing 26*(4), 353-361. doi: 10.1111/j.1525-1446.2009.00790.x

Markle-Reid, M., Browne, G., Roberts, J., Gafni, A., & Byrne, C. (2002). The 2-year costs and effects of a public health nursing case management intervention on mood-disordered single parents on social assistance. *Journal of Evaluation in Clinical Practice 8*(1), 45-59.

Moricca, M., Grasska, M., BMarthaler, M., Morphew, M., Weismuller, P. C., & Galant, S. P. (2012). School asthma screening and case management: Attendance and learning outcomes. *Journal of School Nursing 29*(2), 104-112. doi: 10.1177/1059840512452668

National Heart, Lung, and Blood Institute. (2014). *Managing asthma: A guide for schools*. NIH Publication No. 14-2650. Retrieved from https://www.nhlbi.nih.gov/files/docs/resources/lung/NACI_ManagingAsthma-508%20FINAL.pdf

Nyamathi, A., Christiani, A., Nahid, P., Gregerson, P., & Leake, B. (2006). A randomized control trial of two treatment programs for homeless adults with latent tuberculosis infection. *International Journal of Tuberculosis Lung Disease 10*(7), 775-782.

Oeseburg, B., Wynia, K, Middel, B., & Reijneveku, S. (2009). Effects of case management for frail older people or those with chronic illness: A systematic review. *Nursing Research, 58*(3), 201-210. doi: 10.1097/NNR.0b013e3181a30941

Powell, S. & Tahan, H. (2010). *Case management: A practical guide for education and practice, 3rd ed*. Philadelphia: Lippincott, Williams, & Wilkin.

Ruiz, S., Snyder, L., Rotondo, C., Cross-Barnet, C., Colligan, E., & Giuriceo, K. (2017). Innovative home visit models associated with reductions in costs, hospitalizations, and emergency department use. *Health Affairs 36*(3), 225-432. doi: 10.1377/hlthaff.2016.1305

Rushton, S. (2015). The population care coordination process. *Professional Case Management 20*(5), 230-238. doi: 10.1097/NCM.0000000000000105

Schaffer, M. A., Kalfoss, M., &Glavin, K. (2017). Public health nursing interventions to promote quality of life in older adult populations: A systematic review. *Journal of Nursing Education and Practice, 7*(11), 92-106. doi: 10.5430/jnep.v7n11p92

Self-Management Resource Center. (2019). *Help your community take charge of its health*. Retrieved from https://www.selfmanagementresource.com/

U.S. Dept. Health and Human Services. (2015). *Asthma and Hispanic Americans*. Retrieved from https://minorityhealth.hhs.gov/omh/browse.aspx?lvl=4&lvlid=60

Will, S., Arnold, M., & Zaiger, D. (2017). *Individualized healthcare plans for the school nurse: A comprehensive resource for school nursing management of health conditions*. Forest Lake, MN: Sunrise River Press.
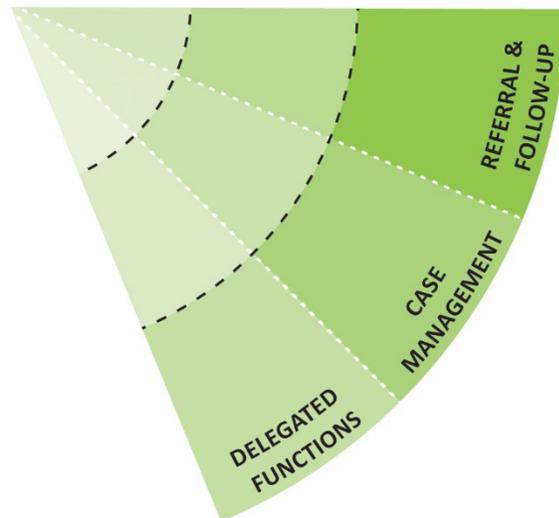
Delegated functions

Delegated functions include: 1) direct care tasks a registered professional nurse carries out under the authority of a health care practitioner, as allowed by law, and 2) direct care tasks a registered professional nurse entrusts to other appropriate personnel to perform.

Delegator: "One who delegates a nursing responsibility—a delegator may be an APRN [advanced practice registered nurse], RN, or LPN/VN [licensed practical nurse/vocational nurse] (where the state nurse practice act allows)" (National Council of State Boards of Nursing, 2016, p. 7).

Delegatee: "One who is delegated a nursing responsibility by either an APRN, RN, or LPN/VN (where state nurse practice Act allows), is competent to perform it, and verbally accepts the responsibility. A delegatee may be an RN, LPN/VN, or unlicensed assistive personnel" (National Council of State Boards of Nursing, 2016, p. 7). Unlicensed assistive personnel include nurses' aides, certified nursing assistants, health aides, community health workers or other non-licensed persons.

Delegated responsibility: "A nursing activity, skill, or procedure that is transferred from a licensed nurse to a delegate" (National Council of State Boards of Nursing, 2016, p. 7).

Only registered nurses can perform responsibilities that involve the nursing process (assessment, diagnosis, planning, intervention, and evaluation). These responsibilities cannot be delegated (Shannon & Kulbecka, 2013a).

Note: Non-public health nurses (PHNs) in the public health workforce conduct assessment, planning, and implementation of interventions in the delivery of public health services. Prior to delegating an action, PHNs consider the legal definition specified in nursing licensure requirements.

Practice-level examples

Population of interest: Schoolchildren taking medication during the school day.

Problem: Inadequate staffing of school nurses in school systems, coupled with federal mandates to serve children with special needs in school settings, results in increased need for medication administration support.

Systems level

School nurses in the school district work with administrators to develop delegation policies and guidelines for implementation across the school district.

Community level

The school nurse determines the number of children in each school needing medication administration, and assigns an unlicensed assistive personnel in each school to administer the medication. The school nurse communicates the plan to school district administration, teachers, and primary care physicians, and supervises the unlicensed assistive personnel in medication administration actions.

Individual/family level

The school nurse delegates medication administration to a teacher during a class field trip for a student with asthma.

Relationship with other interventions

Delegated functions focus on a single aspect of nursing practice—that of delegation. The intervention occurs in two ways: the PHN as the initiator of delegated functions to others (that is, the **delegator**), and as the recipient of delegated functions from other health professionals (that is, the **delegatee**). For PHNs whose assignment involves the delivery of home health services or other health care functions under del-

egation from a medical provider, the concept of the nurse as the delegatee is undoubtedly very familiar. The role of PHNs as delegators or initiators of delegated functions deserves further examination.

Public health nurse-led delegation primarily occurs at the individual/family level of practice. However, the act of PHN delegation to other health personnel is theoretically possible in every intervention. For example, a PHN may delegate a family health aide to do **health teaching** on parenting to a young family, or delegate parts of vision and hearing **screening** to a school health aide, or delegate certain **outreach** tasks to unlicensed assistive personnel or a community health worker. The interventions of **collaboration** and **consultation** often occur in the process of delegating a task. In each of these examples, the PHN exercises independent nursing functions.

Delegated functions is the only intervention where another health professional uses legal authority to direct PHN actions. None of the other public health nursing interventions requires another health professional's authority. Public health nurses practice the other 16 interventions and delegation to aides, unlicensed assistive personnel, community health workers, and other similar positions independently under the authority of their states' respective nurse practice acts.

Basic steps

The following steps are adapted from a number of sources (American Nurses Association, 2012; American Nurses Association & National Council of State Boards of Nursing, 2006; Mueller & Vogelsmeier, 2013; Schoon, Porta, & Schaffer, 2019; Spriggle, 2009):

1. Assess the situation

Assessment helps PHNs understand the task, and environment of the delegation situation.

- What are the client's needs?
- Are any cultural modifications required?
- What are the conditions that determine stability of client and predictability of outcome?
- What is the environment where the care is provided?
- Who else is in the client's environment?

2. Develop the plan

The delegation plan is needed to identify the specific steps of the task to be delegated.

- What is the baseline status of the client?
- What are the specific, unchanging performance steps?
- When and to whom does the unlicensed assistive personnel need to report if the baseline status changes?
- What expectations need documentation?

3. Analyze delegation factors

The PHN determines if task is appropriate and legal to delegate.

- Is the task within the PHN's scope of practice?
- Do federal or state laws, rules, or regulations support the delegation?
- Does the employing organization/agency support the delegation?
- Is the delegating PHN competent to make the delegation decision?
- Is the unlicensed assistive personnel competent to make the delegation decision?
- Is PHN supervision of the unlicensed assistive personnel available?

4. Communicate and clarify expectations

Communication about delegation must be a two-way process to ensure successful delegation.

- Is the communication clear, concise, correct, and complete?
- Are the following components included in communication and interactions about the delegation?
  - Client requirements and characteristics
  - Clear expectations of what to do, what to report, and when to ask for help
  - What information needs to be reported
  - Responsibility for documentation
  - Clarification of the unlicensed assistive personnel's understanding of expectations
  - The willingness and availability of the PHN to guide and support the unlicensed assistive personnel
  - An opportunity for the unlicensed assistive personnel to ask questions and clarify expectations

5. Evaluate client condition and response

Evaluating of the client response will help determine whether the supervision delegation is adequate.

- How frequently is supervision provided?
- Does the supervision include monitoring client needs, health status, response to care, and complexity of the delegated task?
- Are the resources and support system adequate?
- Is there compliance with practice standards, policies, and procedures?
- Is the level of supervision appropriate for the delegated task?

6. Evaluate unlicensed assistive personnel's skills and performance and provide feedback

Evaluating performance helps improve the delegation process and provides feedback for the unlicensed assistive personnel.

- Was the delegation successful? (Spriggle, 2009, p. 107)
  - Was the task/function/activity performed correctly?
  - Was the client's desired and/or expected outcome achieved?
  - Was the outcome optimal, satisfactory, or unsatisfactory?
  - Was the communication timely and effective?
  - What went well? What was challenging?
  - Were there any problems or concerns? If so, how were they addressed?
- Is there a better way to meet the client need?
- Does the overall plan of care need to be adjusted, or should this approach be continued?
- Were there any learning moments for the assistant or for the nurse?
- Was the appropriate feedback provided to the assistant regarding performance of the delegated task?
- Was the assistant acknowledged for accomplishing the task/activity/function?

Example

A school nurse provided training and supervision on medication administration for a new unlicensed assistive personnel recently hired by the school district. (Since most delegation interventions occur at the individual level, the example provided illustrates the individual level of delegation.)

1. Assess the situation

The elementary school integrates children with special needs into classrooms. Although new to the school setting, the unlicensed assistive personnel has personal care aide experience.

2. Develop the plan

The school nurse reviews the steps of the medication administration process with the unlicensed assistive personnel.

3. Analyze delegation factors

Delegation factors to consider include characteristics of the students receiving medications, the unlicensed assistive personnel's prior experience with medication administration, and supervision frequency.

4. Communicate and clarify expectations

The school nurse allows adequate time for training and ongoing communication. The school nurse explains the administration policy on school medication and discusses expectations for medication administration and reporting requirements. The school

nurse and unlicensed assistive personnel discuss potential challenges, including medication administration, possible responses, and when to consult the school nurse.

5. Evaluate condition of the client and response

Supervision may include direct observation of the unlicensed assistive personnel's performance to determine how the student responds during the medication administration process. Supervision includes determining if the medication administration performance complies with school policy.

6. Evaluate unlicensed assistive personnel's skills and performance of tasks and provide feedback

The school nurse determines the success of the delegation by analyzing what went well and how problems were addressed. The school nurse provides feedback to the unlicensed assistive personnel about strengths in performing medication administration and any areas for growth.

Public health nurse as delegatee

Although PHNs are primarily independent in their practice under the scope of nursing practice specified in law (nurse practice acts for each state) there are situations when tasks are delegated to PHNs.

Example: Client-specific medical provider orders or standing orders for a large population would not work for vaccine administration. Health departments develop protocols for vaccine administration. The Minnesota Department of Health (MDH) provides information about vaccine protocols online: Vaccine protocols (n.d.).

MDH hosts information and templates for writing vaccine administration orders, known as a protocol. Vaccine protocols are specific to a disease and include:

- Criteria for proceeding or not proceeding with vaccination
- Indications for groups recommended for vaccination
- Contraindications and precautions
- Actions prescribed: Specifically identified in the template for giving vaccines
- Prescription
- What to do in case of medical emergency or anaphylaxis
- Who to contact for questions or concerns
- Signature of prescriber
- Formatting of protocol

Templates incorporate the name of the drug, dosage, administration route, administration schedule, and any special instructions.

The five rights of the public health nurse as delegatee

The five rights can be adapted for situations in which the PHN accepts delegation from a health professional as allowed by law (American Nurses Association & National Council of State Boards of Nursing, 2006). Consider the following questions that address the five rights of delegation:

1. **Right task**: Is the task within the PHN legal scope of nursing practice?
2. **Right circumstance**: Is the delegated task or function consistent with agency policies and procedures?
3. **Right person**: Does the PHN have the knowledge, training, and experience to assure safe performance of the task?
4. **Right direction or communication**: Are the orders/protocols accurate and clear?
5. **Right supervision**: Who is responsible? Who is accountable? The PHN is limited by the legal scope of nursing practice.

Key points from evidence

For a description of evidence levels, visit: **Introduction**: Overview of evidence-based practice and related topics.

1. Effective delegation

"Effective delegation is based on one's state nurse practice act and an understanding of the concepts of responsibility, authority, and accountability" (Weydt, 2010, p. 1).

Authority: Registered nurse (RN) professional licensure allows transfer of selected nursing activities in a specific situation to a specific, competent individual.

Responsibility: As a two-way allocated and accepted process, RNs delegate the responsibility to perform an activity, and assistive personnel accept the responsibility when they agree to perform the activity.

Accountability: The PHN determines the safety and quality of the outcome of the delegation process. The PHN assures accountability when verifying that the delegatee accepts the delegated activity and accompanying responsibility. Accountability involves following a professional code of ethics and adhering to the scope and standards of nursing practice.

Level 4 source:

▪ Ballard, Haagenson, & Christiansen, 2016

Level 5 sources:

▪ Schoon et al., 2019
▪ Turner, 2016
▪ Weydt, 2010

2. Responsibilities in a delegation model

The National Council of State Boards of Nursing (NCSBN) identifies the following responsibilities in a delegation model:

Licensed nurse responsibilities:

- Determine patient needs and when to delegate
- Ensure availability to delegate
- Evaluate outcomes of and maintain accountability for delegated responsibility

Delegatee responsibilities:

- Accept activities based on own competence level
- Maintain competence for delegated responsibility
- Maintain accountability for delegated activity

Employer/nurse leader responsibilities:

- Identify a nurse leader
- Determine which nursing responsibilities to delegate, to whom, and in what circumstances
- Develop delegation policies and procedures
- Periodically evaluate delegation process
- Promote positive culture/work environment

Level 4 source:

- National Council of State Boards of Nursing, 2016

3. Factors to consider when delegating to assistive personnel

Assess the following factors prior to delegation to unlicensed assistive personnel or nursing assistive personnel:

- Potential for harm
- Complexity of task
- Requirement of problem solving or critical thinking
- Unpredictability of outcome
- Level of caregiver-patient interaction
- Practice setting

A decision tree guides assignment of a task to nursing assistive personnel. The decision tree takes users through a series of questions that ends with "Yes, proceed with delegation" or "No, do not delegate."

Level 4 sources:

- American Nurses Association & National Council of State Boards of Nursing, 2006
- Association of Women's Health, Obstetric and Neonatal Nurses, 2016

4. Facilitators and barriers to effective delegation

When delegating a task, consider factors that facilitate effective delegation and/or create barriers to effective delegation.

Facilitators of effective delegation:

- Establishing an environment of trust and cooperation between the PHN and un-licensed assistive personnel
- Using a teaching and learning approach
- Effective communication
- Providing feedback and follow-up evaluation
- Supportive nursing leadership

Barriers to effective delegation:

- Fear of being disliked
- Inability to give up any control of the situation
- Tendency towards isolation and choosing to complete all tasks alone
- Lack of confidence to delegate to staff who are peers
- Thinking of oneself as the only one who can complete the task
- Lack of knowledge about staff's capability
- Wide variation in terminology and titles
- Lack of standardized training and allowable tasks
- Competency issues
- Lack of time to provide adequate supervision

Level 3 sources:

- Bittner, & Gravlin, 2009
- Kaernested & Bragadottir, 2012

Level 5 sources:

- Hepsi, 2014
- Tompkins, 2016

5. Situations where delegation is inappropriate

Situations in which a nursing task should not be delegated include:

- The task is not within the nurse's scope or practice.
- The nurse does not have a clear understanding of the role and function of the individual receiving the delegation.
- The nurse is uncertain of the delegate's suitability for the task, and deems the person is unable to perform the task competently or is otherwise unmatched to the client's needs.
- The assistant does not accept the task.
- The nurse does not have access to the client's health record to verify relevant information.
- The client is unstable.
- The task is not allowed by law or by policy, endangers the client, or the outcome is unpredictable.
- The nurse will not be available to supervise or give direction.

Level 5 source:

- Tompkins, 2016

6. Reducing delegation risks in school settings

In school settings, procedure checklists can reduce possible risks of delegation by:

- Demonstrating accountability and competence of both school nurses and unlicensed assistive personnel
- Reflecting the student's specific health care needs, while simultaneously promoting reliable and uniform execution of skills by different staff members
- Providing an outline of step-by-step actions for reference and reinforcement of proper techniques, documenting that the school nurse has demonstrated the procedure and that delegated personnel can correctly return demonstration
- Documenting that the unlicensed assistive personnel accepts responsibility for assuming the task
- Providing a regular documentation schedule for monitoring, evaluating, reinforcing, and remediating unlicensed assistive personnel skills

Level 5 source:

- Shannon, & Kubelka, 2013b

7. Delegating medication administration in schools

Recommendations for medication administration in schools identified in studies on school nurses and medication administration include:

- Establishing an ongoing evaluation of medication administration
- Establishing medication policy regarding responsibility for medication administration, to whom the task can be delegated, and the amount of training needed by unlicensed assistive personnel
- Using checklists, decision trees, and videos on procedures to facilitate accurate medication administration when a school nurse cannot be on site with students

Level 3 sources:

- Anderson et al., 2017
- Canham, Bauer, & Concepcion, 2017
- Ficca & Welk, 2006

8. Delegating to maternity support workers

In five maternity services in London, tasks delegated to maternity support workers included taking blood, breastfeeding support, parent education, vital sign observation, and transfer and discharge procedures. A mixed method evaluation showed a positive impact on breastfeeding rate and length of stay, and improved quality and continuity of care.

Level 3 source:

- Griffin, Richardson, & Morris-Thompson, 2012

9. Delegating medicine support for home care clients

In the United Kingdom, a program titled "Workforce Innovation for Safe and Effective (WISE) Medicines Care," established guidelines for nurses to delegate medicine support for low-risk home care clients to community care aides. Medicine support provided by community care aides included prompting clients to take medications, removing medications from packages, crushing tablets, and assisting clients with administration of oral and topical medications. Outcomes included no medication incidents, developing trust and confidence in the community care aides, and eliminating duplicate nurse and community care aide visits, which increased the capacity of nurses to visit clients with more complex needs.

Level 2 source:

▪ Lee et al., 2015

Wheel notes

Community health workers

The Affordable Care Act (ACA) of 2010 triggered the growth of community health workers in clinics, public health agencies, and community-based organizations. CHWs are "frontline" public health workers with knowledge of the community environment and client culture. Community health workers contribute to improving health outcomes and reducing mortality and costs for those experiencing medical and social challenges. Community health workers often work with underserved and racially/ethnically diverse populations. They provide outreach, offer health education, facilitate enrollment in health programs, help with system navigation, advocate for clients, and facilitate the referral process (Brooks et al., 2014; Tri-City Council for Nursing, 2017; WellShare International, 2015).

With the growth in the community health worker role, so grows the opportunity for PHNs to delegate to and supervise community health workers as part of a team-based approach to delivering public health services (Martin, Perry-Bell, Minier, Glassgow, & Van Voorhees, 2018). Common program areas for the community health worker role are nutrition, diabetes, and mental health. Examples of populations served include the elderly, high-risk children and youth, immigrants, and refugees (WellShare International, 2015).

References

American Nurses Association. (2012). *Principles for delegation by registered nurses to nursing assistive personnel in all settings [Position Statement]*. Silver Springs, MD: Author.

American Nurses Association & National Council of State Boards of Nursing. (2006). *Joint Statement on Delegation*. https://www.ncsbn.org/Delegation_joint_statement_NCSBN-ANA.pdf

Anderson, L. J. W., Schaffer, M. A., Hiltz, C., O'Leary, S. A., Luehr, R. E., & Yoney, E. L. (2017). Public health interventions: School nurse practice stories. *Journal of School Nursing*, pp. 1-11, online. doi: 10.1177/1059840517721951

Association of Women's Health, Obstetric and Neonatal Nurses. (2016). The role of unlicensed assistive personnel (nursing assistive personnel) in the care of women and newborns. *Journal of Obstetric, Gynecologic, and Neonatal Nursing, 45*(1), 111-113.

Ballard, K., Haagenson, D., & Christiansen, L. (2016). Scope of nursing practice decision-making framework. *Journal of Nursing Regulation, 7*(3), 19-21.

Bittner, N.P. & Gravlin, G. (2009). Critical thinking, delegation, and missed care in nursing practice. *Journal of Nursing Administration, 39*(3), 142-146.

Brooks, B. A., Davis, S., Frank-Lightfoot, L., Kulbok, P. A., Poree, S., & Sgarlata, L. (2014). *Building a community health worker program: The key to better care, better outcomes & lower cost*. Published by CommunityHealth Works, Chicago, IL: Authors. Retrieved from http://www.aone.org/resources/PDFs/CHW_resource.pdf

Canham, D. L., Bauer, L., & Concepcion, M. (2017). An audit of medication administration: a glimpse into school health offices. *Journal of School Nursing 23*(1), 21-27.

Ficca, M. & Welk, D. (2006). Medication administration practices in Pennsylvania schools. *Journal of School Nursing 122*(3), 148-155.

Griffin, R., Richardson, M., & Morris-Thompson, T. (2012). An evaluation of the impact of maternity support workers. *British Journal of Midwifery, 20*(12), 884-889.

Hepsi, B. J. (2014). Delegation in nursing management: Common errors. *Journal of Asian Nursing Education and Research, 4*(2), 242-244.

Kaernested, B., & Bragadottir, H. (2012). Delegation of registered nurses revisited: Attitudes towards delegation and preparedness to delegate effectively. *Nordic Journal of Nursing Research & Clinical Studies, 32*(1), 10-15.

Lee, Y. C., Beanland, C., Goeman, D., Johnson, A., Thorn, J., Koch, S., et al. (2015). Evaluation of a support worker role, within a nurse delegation and supervision model, for provision of medicines support for older people living at home: the Workforce Innovation for Safe and Effective (WISE) Medicines Care study. *Health Services Research, 15*, 1-11. doi: 10.1186/s12913-015-1120-9

Martin, M. A., Perry-Bell, K., Minier, M., Glassgow, A. E., & Van Voorhees, B. W. (2018). A real-world community health worker care coordination model for high-risk children. *Health Promotion Practice* (early online), 1-10. doi: 10.1177/1524839918764893

Minnesota Department of Health. (n.d.). *Vaccine protocols*. Retrieved from https://www.health.state.mn.us/people/immunize/hcp/protocols/index.html

Mueller, C. & Vogelsmeier, A. (2013). Effective delegation: Understanding responsibility, authority, and accountability. *Journal of Nursing Regulation, 4*(3), 20-27.

National Council of State Boards of Nursing. (2016). National guidelines for nursing delegation. *Journal of Nursing Regulation, 7*(1), 5-14.

Schoon, P. M., Porta, C. M., & Schaffer, M. A. (2019). *Population-based public health clinical manual: The Henry Street model for nurses, 3rd ed*. Indianapolis, IN: Sigma Theta Tau International.

Shannon, R. A. & Kubelka, S. (2013a). Reducing the risks of delegation: Use of procedure skills checklists for unlicensed assistive personnel in schools, Part 1. *NASN School Nurse, 28*(4), 178-181.doi: 10.1177/1942602X13489886

Shannon, R. A. & Kubelka, S. (2013b). Reducing the risks of delegation: Use of procedure skills checklists for unlicensed assistive personnel in schools, Part 2. *NASN School Nurse, 28*(5): 222-226. doi: 10.1177/1942602X13490030

Spriggle, M. (2009). Developing a policy for delegation of nursing care in the school setting. *The Journal of School Nursing, 25*(2), 98-107. doi: 10.1177/1059840508330756

Tompkins, F. (2016). Delegation in correctional nursing practice. *Journal of Correctional Health Care, 22*(3), 218-224. doi: 10.1177/1078345816654229

Tri-Council for Nursing. (2017). *The essential role of the registered nurse and integration of community health workers into community team-based care*. Retrieved from http://www.tricouncilfornursing.org/

Turner, L. P. (2016). The nurse leader in the community. In M. Stanhope & J. Lancaster (Eds.), *Public health nursing: Population-centered health care in the community* (pp. 867-884).

WellShare International. (2015). *Summary of results from a statewide survey of CHWs in Minnesota: Perspectives on the community health worker workforce*. Retrieved from http://www.epi.umn.edu/mch/wp-content/uploads/2015/11/PerspectivesOnTheCHWWorkforce_Summary_WellShare_Sept2015.pdf

Weydt, A. (2010). Developing delegation skills. *Online Journal of Issues in Nursing, 15*(2), 1. doi: 10.3912/OJIN.Vol15No02Man01
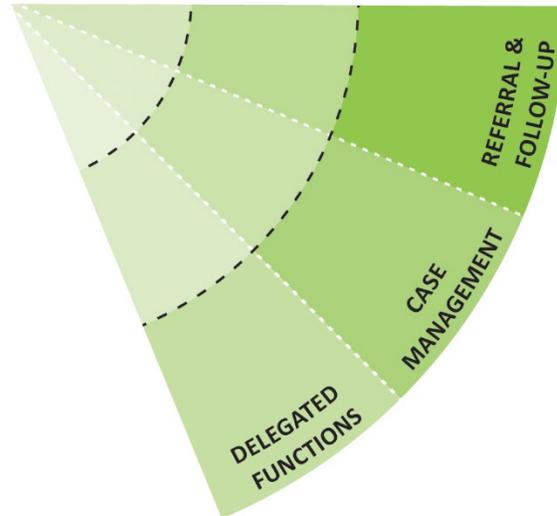
In review

A story:

Tuberculosis (TB) is a contagious disease spread through airborne exposure. Adhering to a treatment regime ensures client recovery and prevents the disease from spreading. Successful treatment involves six- to 12-month multi-drug therapy. This approach—daily, in-person medication delivery—is called directly observed therapy (DOT), and serves as the standard care for patients with active TB (Minnesota Department of Health, 2016).

The Dakota County Public Health Disease Prevention & Control Unit receives referrals from the Minnesota Department of Health on active TB cases needing follow-up. Public health nurses provide case management for clients with active TB. Public health nurses make home or workplace DOT visits to clients with active TB to ensure successful treatment. In some cases, PHNs delegate DOT to a community health worker.

Video directly observed therapy (VDOT) assists in managing the challenges of active TB cases. Dakota County PHNs are using asynchronous VDOT, during which clients record a date and time stamped video of themselves for uploading to a secure online location for PHN review. Asynchronous VDOT makes DOT more convenient for the client and public health professional, and results in greater flexibility and cost savings.

This successful approach by Dakota County demonstrates that VDOT provides the same level of service as DOT, while increasing customer convenience, ensuring privacy, and reducing staff time (Dakota County Office of Performance and Analysis, 2017; Dakota County Public Health Department, 2018).

Think about how green wedge interventions (referral and follow-up, case management, and delegated functions) occur with TB clients and the use of VDOT.

Application questions

Consider the following questions for the story about managing active TB.

Level of practice

1. What levels of practice do you see occurring in this story?

Referral and follow-up

2. When referring a client for VDOT, which of the basic steps are most important for assuring client readiness for VDOT?
3. What are cultural considerations to address when referring the client for VDOT? What possible social, economic, and/or geographic barriers might the PHN need to address when making the referral?
4. What PHN actions lead to a trusting relationship, and contribute to the decision of VDOT as a viable client option?

Case management

5. How would the public health nurse document that the quality of care for a client meets VDOT standards?
6. What client resources support VDOT success?
7. How does VDOT reduce costs for TB treatment?
8. How might technology contribute to increasing/decreasing gaps in communities with fewer resources?

Delegated functions

9. What benefits arise from delegating DOT to a community health worker? For the patient? For the public health nurse? For the community health worker?
10. What steps should the public health nurse take to delegate client DOT to a community health worker?
11. What should the public health nurse communicate to the community health worker to ensure successful delegation?
12. What cultural considerations should be made when determining whether delegating to a community health worker is appropriate?

References

Dakota County Office of Performance and Analysis. (2017). *Dakota County Public Health Department: Video directly observed therapy for active tuberculosis treatment*. Retrieved from https://www.co.dakota.mn.us/Government/Analysis/ReportsProjects/Documents/VideoDirectlyObservedTherapyActiveTB.pdf

Dakota County Public Health Department. (2018). *Video directly observed therapy for active tuberculosis treatment update July 2018*. Retrieved from https://www.co.dakota.mn.us/Government/Analysis/ReportsProjects/Documents/VideoDirectlyObservedTherapyActiveTBUpdate.pdf

Minnesota Department of Health. (2016). *Video directly observed therapy (VDOT) – A Minnesota Perspective*. Retrieved from https://www.health.state.mn.us/diseases/tb/lph/vdot/vdotmn.pdf
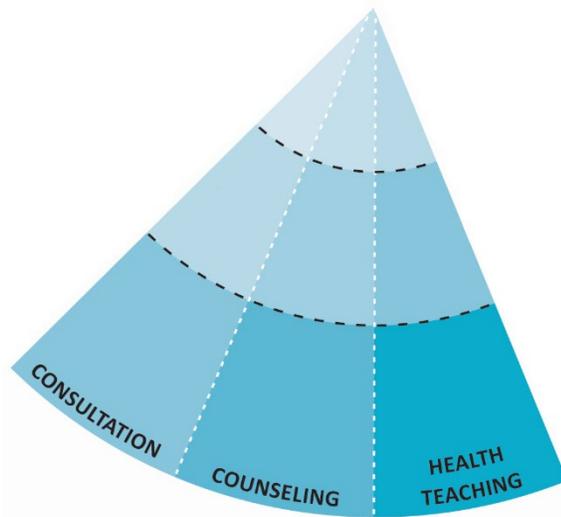
Health teaching

Health teaching involves sharing information and experiences through educational activities designed to improve health knowledge, attitudes, behaviors, and skills (Friedman, Cosby, Boyko, Hatton-Bauer, & Turnbull, 2011).

- **Knowledge**: Fact or condition of knowing something with familiarity gained through experience association (Merriam-Webster Dictionary, 2017)
- **Attitude**: Mental position, feeling, or emotion with regard to a fact or state; may be negative or positive (Merriam-Webster Dictionary, 2017)
- **Behavior**: Response of an individual, group, or species to its environment (Merriam-Webster Dictionary, 2017)
- **Skill**: Proficiency, facility, or dexterity acquired or developed through training or experience (The Free Dictionary, 2017)

Practice-level examples

Population of interest: Pregnant and childbearing women.

Problem: Alcohol use during pregnancy.

Systems level

A public health nurse (PHN) provides an in-service training to physicians, midwives, and family planning specialists, highlighting new research findings on the effect of alcohol on pregnancy. The PHN promotes evidence-based and standardized care for pregnant women that includes screening for alcohol use and counseling regarding the danger of alcohol use during pregnancy.

Community level

A PHN participates in a county task force that aims to reduce alcohol use by women during pre-conceptual and child-bearing years. The group develops a series of posters and distributes them to liquor retailers and establishments serving alcoholic beverages.

Individual/family level

A PHN incorporates information on the impact of alcohol use on fetal development into the reproductive health class taught to high school and community college students.

Relationship to other interventions

Health teaching is used in conjunction with virtually all interventions. It is frequently implemented in conjunction with, or sequentially to, **counseling** and/or **consultation**. Counseling focuses on the emotional component inherent in any attempt to change, while consultation seeks to generate alternative solutions to problems.

Similar to health teaching, **social marketing** strategies aim to change behavior by communicating information, but includes marketing techniques. In addition, the PHN is often in **collaboration** with others when designing health teaching strategies.

Basic steps

The education process is a "systematic, sequential, logical, scientifically based, planned course of action consisting of two major interdependent operations: teaching and learning" (Bastable, 2017, p. 10). Interactions between the teacher and learner are intended to lead to mutually desired behavior changes (outcomes).

Public health nurses can use the **ASSURE Model** (Bastable, 2017) to design health teaching activities.

ASSURE Model

A Analyze the learner.

S State the objectives.

S Select the instructional methods and materials.

U Utilize materials.

R Require learner performance.

E Evaluate the teaching plan and revise as necessary.

Source: Bastable (2017).

A: Analyze the learner

Assessing the individual/family, community, or system is essential to determine effective teaching-learning strategies.

Use the **Learner Readiness Assessment (PEEK)** to assess individuals or small groups (Schoon, Porta, & Schaffer, 2019).

P: Physical and developmental health status

- Cognitive abilities
- Communication abilities (verbal, nonverbal, written)
- Development level
- Individual
- Family
- Physical environment

E: Emotional

- Current stress, coping, resilience
- Motivation for learning
- Readiness for learning

E: Experiential and social

- Culture and language
- Cultural health beliefs and practices
- Past experiences with health care and specific health topics

K: Knowledge

- Education/reading level
- Language literacy and learning style
- Present knowledge on topic/ past health education
- Health literacy

S: State the objectives

Learning objectives help identify client outcomes and guide selection of teaching-learning strategies.

Stated outcomes should be specific, measureable, achievable, realistic, and time-bound (**SMART**) (Centers for Disease Control and Prevention, 2015):

- **Specific**: Concrete, detailed, and well defined
- **Measureable**: Provides means of measurement and comparison via numbers and quantities
- **Achievable**: Feasible and easy to put into action
- **Realistic**: Considers capacity and constraints such as resources, personnel, cost, and time frame
- **Time-bound**: A time frame that sets boundaries around the objective

S: Select instructional methods and materials

Select instructional methods based upon teaching-learning principles (below) and whether methods are appropriate to client learning style. Select effective and evidence-based learning materials.

Public health nurses are intentional about selecting effective methods and materials from an incredible variety of available tools including presentations, print materials, and media.

These **teaching-learning principles** are adapted from Schoon et al. (2019):

- Target health teaching to a specific audience.
- Learner readiness affects what is learned.
- Motivation affects learning.
- Active learning is best (demonstration).
- Use written learning objectives to guide teaching plan.
- Avoid professional jargon and overwhelming learner with excessive information.
- Use visuals to enhance print and verbal messages.
- Create a comfortable learning environment.
- Integrate a variety of learning styles (**VARK**) (Inott & Kenney, 2011):
  - **V: Visual learners** process information by seeing illustrations and words.
  - **A: Auditory learners** prefer discussion, speaking, and talking through information.
  - **R: Reading or writing learners** prefer information displayed in text (words).
  - **K: Kinesthetic learners** prefer learning through experience and practice (physical activity and touch).
- Use best evidence and give credit to information source.
- Link information to prior knowledge.
- Allow time for interaction and applying information.
- Reinforce written materials with verbal messages.
- Use multiple methods to assess understanding of content.

U: Utilize materials

The teaching plan specifies the materials and strategies, based on teaching-learning principles.

Implement the teaching plan (Schoon et al., 2019)

- Schedule (reasonable time allotted for each activity)
- Location (distraction-free, adequate room, lighting, comfort)
- Learner outcomes (achievable and measureable within time frame)
- Brief content outline (main topics with learning activities)
- Teaching-learning strategies (consider learning styles of individual or group)
- Resources (materials and references)
- Evaluation (specific and measureable)

R: Require learner performance

Including learner interactions, demonstration, or other involvement will increase learner engagement and learning.

These **learner engagement guiding principles** are adapted from Yardley, Morrison, Bradbury, & Muller (2015):

- Promote client autonomy by offering choices where possible (goals, tools, timing, and method of implementation).
- Promote client competence by providing clear structure and guidance, examples, stories, modeling, and opportunities for goal setting.

- Promote a positive emotional experience and sense of relatedness by using positive language; acknowledging and addressing concerns; creating communications that are enjoyable, relevant, and helpful to the user; and providing immediate and rewarding feedback.

E: Evaluate and revise

Evaluation and revision cycles enhance implementation effectiveness.

Sample evaluation questions include:

- Were the objectives achieved in a timely manner?
- How do you know the objectives were achieved?
- What strategies contributed to successful achievement of the objectives?
- If the objectives were not achieved, what barriers or factors interfered with learning?
- What could be done differently to achieve the outcomes?

Example

The PHN teaches a reproductive health class for at-risk high school students regarding the impact of alcohol use on fetal development. The PHN uses the ASSURE model to guide the intervention.

A: Analyze the learner

PEEK Model:

- **P: Physical and developmental health status**: 15 to 18 years old, some are pregnant, average communication skills, majority from low-income families living in an urban area.
- **E: Emotional**: High level of stress related to unstable family life, pregnancy, and/or balancing educational and work responsibilities; interested in learning about reproduction.
- **E: Experiential and social**: English is a first language for most and a second language for others, racially and ethnically diverse, alcohol and fetal health is one of a series of health topics.
- **K: Knowledge**: Reading level varies, preferred learning style includes visual and kinesthetic learning activities.

S: State the objectives

Upon completion of the post-test on the reproductive unit, 80 percent of at-risk high school students in the reproductive health class will have correctly communicated two ways that drinking alcohol during pregnancy could affect infant health.

SMART framework:

- **Specific**: Effect of alcohol on fetal development during pregnancy is present in age-appropriate materials
- **Measureable**: Correct answers on post-test
- **Attainable**: Content can be learned during the class period
- **Realistic**: Two ways that drinking alcohol during pregnancy could affect infant health on the post-test
- **Time-bound**: The post-test at the end of the reproductive unit

S: Select instructional methods and materials

Students need active learning experiences and materials at appropriate health literacy levels (grade five for English language learners) to promote knowledge attainment. All educational material should be analyzed carefully to ensure that they are at the recommended fifth grade level (Wilson, 2009). Visuals such as a video and clear handouts enhance learning. The classroom arrangement includes tables and chairs to promote small group discussion and room for active learning.

U: Utilize materials

The class is 50 minutes long, including time for interactive activities. The content outline proposes the following activities and materials: student discussion about the effects of alcohol on the mind and body of the pregnant woman and the fetus, a video on fetal alcohol syndrome with opportunity for questions, small group role-playing of a peer-to-peer conversation about the effects of alcohol on the fetus, and reviewing a handout capturing major points of the presentation.

R: Require learner performance

After showing a video on fetal alcohol syndrome:

- Engage students in a discussion about what they have seen or heard in the past about fetal alcohol syndrome.
- Facilitate a role-playing activity capturing a peer-to-peer conversation regarding the effects of alcohol on the fetus.

E: Evaluate and revise

Determine what percentage of students correctly answered the post-test questions about the effects of drinking alcohol on infant health. If the goal is not met, revise the teaching plan as appropriate.

Key points from evidence

For a description of evidence levels, visit: **Introduction**: Overview of evidence-based practice and related topics.

1. Best practices for written messages

Use the following to improve written messages:

- Active voice (e.g., "Eat five servings of fruits and vegetables" instead of "Five servings should be eaten")
- Subheadings
- Short sentences and paragraphs
- Summarized main points
- Five or fewer items in a list
- Font changes (underline or bold) to emphasize points
- Large, readable font
- Short blocks of text
- White space as part of the design
- Contrast between background and printed text for readability
- Pictures to enhance memory

Level 5 source:

- Schoon et al., 2019

2. Tailored health interventions

Tailoring health teaching interventions to meet specific needs contributes to improved health outcomes; this includes cultural factors of individuals, groups, or communities.

Level 1 source:

- Jesse et al., 2015

Level 2 source:

- Ailinger, Martyn, Lasus, & Garcia, 2010

3. Support and counseling in education

Incorporate support and counseling into education, as it contributes to improved self-care.

Level 1 source:

- Mohammadpour, Sharghi, Khosravan, Alami, & Akhond, 2015

4. Shared decision-making

Shared decision-making regarding health teaching strategies results in better health outcomes for individuals/families, communities, and systems. Shared decision-making

may be referred to as client- or patient-centered, person-based, or concordance (a partnership between nurse and client where shared decision-making takes place).

Level 5 sources:

- McKinnon, 2013
- Yardley et al., 2015

5. Behavior change is an active process

Knowledge and information alone does not lead to behavior change. Knowledge transmission is an active process that encompasses continuing dialogue, interactions, and partnerships within and between knowledge creators and users.

Level 3 source:

- Mrazik et al., 2015

6. Using theories to guide interventions

Health behavior theories are useful for guiding health teaching interventions. The Health Belief Model and the Stages of Change Model are particularly applicable to designing and implementing the health teaching intervention. The Health Belief Model is a framework for motivating people to take positive health actions; it uses the desire to avoid a negative health consequence as the prime motivator. The Stages of Change Model proposes five stages that describe the behavior change process: pre-contemplation, contemplation, preparation, action, and maintenance.

Level 5 source:

- Reimer & Glanz, 2005

7. Promoting the use of evidence in practice

Organizations promote the use of evidence in practice by providing access to practice guidelines and protocols.

Level 3 sources:

- Ashby et al., 2012
- Baxter et al., 2010
- Callego, & Geer, 2012

8. Effective health risk communication

Health risk communication, or crisis communication, is a strategy to improve health knowledge; attitudes; behaviors; and skills of individuals/families, communities, or systems in the context of perceived threats of harm or hazard. Risk communication conveys to the public the reality of the threat, to allay fears and/or increase public concern and prompt action. Effective health risk communication considers a population's cultural and socioeconomic characteristics, strategies to foster self-efficacy and trust in the intervention plan, and prepares the population for uncertainty and the

changing risk event. The following principles summarize best practices for guiding public health risk communication:

- Accept and involve stakeholders as legitimate partners.
- Listen to what people are saying.
- Be truthful, honest, frank, and open.
- Coordinate, collaborate, and partner with other credible sources.
- Meet the needs (who, what, why, when, where, and how) of the media.
- Communicate clearly and with compassion.
- Plan thoroughly and carefully.

Level 4 sources:

- Centers for Disease Control and Prevention, 2014
- Environmental Protection Agency, 2016
- Vaughan & Tinker, 2009

Level 5 source:

- Covello, 2003

Wheel notes

Social media

Using social media to share information is on the rise and ripe for teaching interventions. The ASSURE Model provides a framework for designing health teaching interventions using social media. Public health nurses need to consider how social media impacts health communication and how communication using social media can occur effectively at the individual/family, community, and systems levels. Measures to protect confidentiality and client privacy need to be integrated into health teaching interventions that incorporate social media strategies. Public health nurses must also follow organizational and agency social media policies.

Health literacy

Health literacy is "the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions" (Institute of Medicine of the National Academies, 2009, p. 6). Clients with low health literacy experience worse health outcomes (Gordon, Barry, Dunn, & King, 2011; Mayer & Villaire, 2011). The Agency for Healthcare Research and Quality developed the AHRQ Health Literacy Universal Precautions Toolkit, which provides tools for simplifying verbal and written communication and integrating self-management and support systems to improve client health literacy (Agency for Healthcare Research and Quality, 2016).

Interprofessional collaboration

Health teaching is often a collaborative activity where the PHN designs and implements the intervention with a variety of public health practitioners. It is important for the PHN to recognize that health teaching is a shared interprofessional domain, and to appreciate the knowledge and skills other practitioners bring to health teaching (Ashby et al., 2012; Baxter et al., 2010). At a systems level, PHNs may work with a team to create messages for public health campaigns (Callego, 2012). An example is communicating the effectiveness and safety of vaccines. Health teaching at a systems level may overlap with **social marketing**. For additional strategies for communicating information at the systems level, visit the social marketing intervention.

References

Agency for Healthcare Research and Quality. (2016). *AHRQ Health Literacy Universal Precautions Toolkit*. Access at https://www.ahrq.gov/professionals/quality-patient-safety/quality-resources/tools/literacy-toolkit/index.html

Ailinger, R. L., Martyn, D., Lasus, H., & Garcia, N. L. (2010). The effect of a cultural intervention adherence to latent tuberculosis infection therapy in Latino immigrants. *Public Health Nursing, 27*(2), 115-120.

Ashby, S. James, C., Plotnikoff, R., Collins, C., Guest, M., Kable, A., et al. (2012). Survey of Australian practitioners' provision of healthy lifestyle advice to clients who are obese. *Nursing and Health Sciences, 14*, 189-196. doi: 10.1111/j.1442-2018.2012.00677.x

Bastable, S. (2017). *Essentials of patient education*. Burlington, MA: Jones & Bartlett Learning.

Baxter, S., Everson-Hock, E., Messina, J., Guillaume, L., Burrows, J., & Goyder, E. (2010). Factors relating to the uptake of interventions for smoking cessation among pregnant women: A systematic review and qualitative synthesis. *Nicotine & Tobacco Research, 12*(7), 685-694. doi: 10.1093/ntr/ntq072

Callego, F. P. & Geer, L. A. (2012). A community-based approach to disseminate health information on the hazards of prenatal mercury exposure in Brooklyn, NY. *Journal of Community Health, 37*, 745-753. doi: 10.1007/s10900-012-9575-7

Centers for Disease Control and Prevention. (2014). *Crisis and emergency risk communication (CERC) manual*. Retrieved from https://emergency.cdc.gov/cerc/manual/index.asp

Centers for Disease Control and Prevention. (2015). *Develop SMART objectives*. Retrieved from https://www.cdc.gov/phcommunities/resourcekit/evaluate/smart_objectives.html

Covello, V. (2003). Best practices in public health risk and crisis communication. *Journal of Health Communication, 8*, 5-8. doi: 10.1080/10810730390224802

Environmental Protection Agency. (2016). *Risk communication*. Retrieved from https://www.epa.gov/risk/risk-communication

Free Dictionary. (2017). http://www.thefreedictionary.com/

Friedman, A. J., Cosby, R., Boyko, S., Hatton-Bauer, J. & Turnbull, G. (2011). Effective teaching strategies and methods of delivery for patient education: A systematic review and practice guideline recommendations. *Journal of Cancer Education, 26*, 12-21. doi 10.1007/s13187-010-0183-x

Gordon, S, C., Barry, C. D., Dunn, D. J., & King, B. (2011). Clarifying a vision for health literacy: A holistic school-based community approach. *Holistic Nursing Practice, 25*(2), 120-16. doi: 10.1097/HNP.0b013e3182157c34

Inott, T. & Kenney, B. B. (2011). Assessing learning styles: Practical tips for patient education. *Nursing Clinics of North America, 46*, 313-320. doi: 10.1016j.cnur.2011.05.006

Institute of Medicine of the National Academies. (2009). *Measures of health literacy: Workshop summary*. Washington, DC: National Academies Press.

Jesse, D. E., Gaynes, B. N., Feldhousen, E. B., Newton, E. R., Bunch, S., & Hollon, S. D. (2015). Performance of a culturally tailored cognitive-behavioral intervention integrated in a public health setting to reduce risk of antepartum depression: A randomized controlled trial. *Journal of Midwifery & Women's Health, 60*(5), 578-592. doi:10.1111/jmwh.12308

Mayer, G. & Villaire, M. (2011). Health literacy: An opportunity for nurses to lead by example. *Nursing Outlook, 59*(2), 59-60. doi: 10.1016/j.outlook.2011.01.00

Merriam-Webster Dictionary. (2017). https://www.merriam-webster.com/

McKinnon, J. (2013). The case for concordance: value and application in nursing practice. *British Journal of Nursing, 22*(13), 776-771.

Mohammadpour, A., Sharghi, N. R., Khosravan, S., Alami, A., & Akhond, M. (2015). The effect of a supportive educational intervention developed based on the Orem's self-care theory on the self-care ability of patients with myocardial infarction: A randomised controlled trial. *Journal of Clinical Nursing, 24*, 1686–1692. doi: 10.1111/jocn.12775

Mrazik, M., Dennison, C. R., Brooks, B. L., Yeates, K. O., Babul, S., & Naidu, D. (2015). A qualitative review of sports concussion education: prime time for evidence-based knowledge translation. *British Journal of Sports Medicine, 49*, 1548-1553. doi:10.1136/bjsports-2015-094848

Reimer, B. K. & Glanz, K. (2005). *Theory at a glance: A guide for health promotion practice*. National Cancer Institute. NIH Publication No. 05-3896.

Schoon, P. M., Porta, C. M., & Schaffer, M. A. (2019). *Population-based public health clinical manual: The Henry Street model for nurses, 3rd ed*. Indianapolis, IN: Sigma Theta Tau International Society of Nursing.

Vaughan, E. & Tinker, T. (2009). Effective health risk communication about pandemic influenza for vulnerable populations. *American Journal of Public Health, Supplement 2*(99), S324-S332.

Wilson, M. (2009). Readability and patient education materials used for low-income populations. *Clinical Nurse Specialist CNS, 23*, 33-40. doi: 10.1097/01.NUR.0000343079.50214.31

Yardley, L., Morrison, L., Bradbury, K., & Muller, I. (2015). The person-based approach to intervention development: Application to digital health-related behavior change interventions. *Journal of Medical Internet Research, 17*(1), e30. doi: 10.2196/jmir.4055
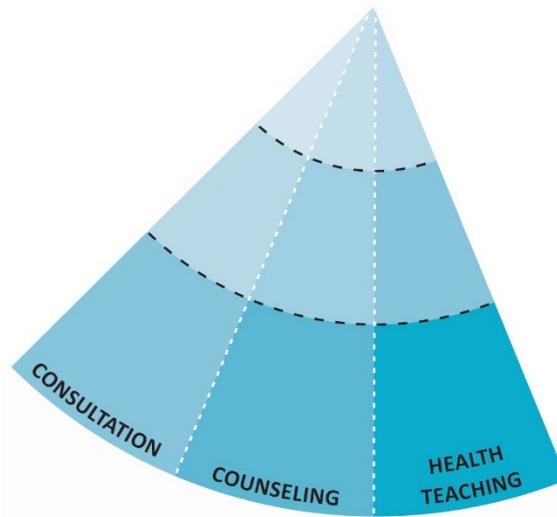
Counseling

> Counseling involves establishing an interpersonal relationship at an emotional level, with the goal of increased or enhanced capacity for self-care and coping.

- Counseling, often paired with **health teaching**, explores the emotional response to integrating new health information into life's circumstances.
- The effectiveness of counseling depends on the ability of the public health nurse (PHN) to develop a supportive, trusting relationship with the client.
- There is a distinction between using counseling skills in public health nursing practice and being a counselor or psychotherapist. Public health nurses are not counselors or psychotherapists unless they have had additional education for those roles. However, like counselors and psychotherapists, PHNs must be good listeners.

Practice-level examples

Population of interest: All adolescents and their parents.

Problem: Depression and the risk for suicide.

Systems level

A school suffers a devastating loss when three teens carry out a suicide pact. In response to the school's distress, the PHN partners with parents, students, school social workers, school service providers, the school nurse, health teachers, and school clubs to design a teen suicide district-wide response plan to prevent repeats of the suicide cluster. The plan outlines the roles that each department of the school will play if a suicide or attempted suicide occurs. The plan also includes the development and implementation of a school-wide resiliency and well-being initiative.

Community level

Public health nurses partner with mental health centers, schools, and faith communities to raise community awareness about depression in teens. Their goal is to change community acceptance of depression—from "just something that teens go through" to the realization that depression is a real, treatable problem. They use billboards, radio spots, movie trailers, and social media to disseminate the message.

Individual/family level

A PHN facilitates a support group for families coping with the loss of a member through suicide.

Relationship to other interventions

Counseling is an intervention frequently implemented in conjunction with, or sequentially to, **health teaching** and/or **consultation**. Health teaching influences the knowledge, attitudes, values, beliefs, practices, skills, and behaviors of individuals/families, communities, or systems. Counseling focuses on the emotional component inherent in any attempt to change. Consultation seeks to generate alternative solutions to problems.

For example, if a PHN provides health teaching about the prevalence, incidence, and causes of family violence at a community meeting, it is likely to trigger emotional responses. Implementing counseling strategies in conjunction with health teaching allows the PHN to build on the energy associated with an emotional response and further enhances the learning opportunity. A community may respond to information on family violence with powerful emotions like anger, outrage, fear, and grief. These emotions can motivate the community to learn more about the problem and its causes. If the community uses this new information to decide what to do to change its tolerance of family violence, the PHN may assist the community in exploring alternatives. In that situation, the PHN provides consultation. Community and systems-level counseling may also lead to **policy development and enforcement**.

PHNs use **collaboration** with other professionals, communities, and health care organizations to identify individuals/families, communities, or systems that could benefit from counseling resources; PHNs can then use **referral and follow-up** to connect clients with counseling resources. For example, at the systems level, school nurses in a large school district may collaborate with a local mental health care organization and a hospital to provide mental health services to schoolchildren. The school nurses refer students to after-school social skills groups, therapy provided at school, and classes on preparing meals and healthy eating.

At the community level, PHNs may use **social marketing** to influence the community.

Basic steps

1. Establish a therapeutic relationship with the client (individual/family, community, or systems)

A therapeutic relationship is the foundation for a trusting, supportive relationship that prepares the PHN and client for the counseling intervention.

> The therapeutic relationship is grounded in an interpersonal process that occurs between the nurse and the client(s). A therapeutic relationship is a purposeful, goal directed relationship that is directed at advancing the best interest and outcome of the client (Registered Nurses Association of Ontario, 2002, 2006, p. 13).

The therapeutic nurse-client relationship protects the patient's dignity, autonomy, and privacy and allows for the development of trust and respect (National Council of State Boards of Nursing, 2014, p. 4).

Expert knowledge can effectively establish a therapeutic relationship. This knowledge includes the following domains: background (education and life experience); interpersonal caring and development theory; culture, diversity influences, and determinants of health; person; health/illness; the broad influences on health care and health care policy; and systems (Registered Nurses Association of Ontario, 2002, 2006).

Abilities PHNs need to establish therapeutic relationships include: 1) self-awareness; 2) self-knowledge; 3) empathy; and 4) awareness of ethics, boundaries, and limits of the professional role. Active listening, trust, respect, being genuine, empathy, using a non-judgmental and non-confrontational approach, and responding to client concerns are important qualities of the therapeutic relationship (Duaso & Duncan, 2012; Registered Nurses Association of Ontario, 2002, 2006).

The therapeutic relationship includes the following three phases (Registered Nurses Association of Ontario, 2002, 2006):

- **Beginning or orientation phase**: The PHN and the client establish relationship parameters, including place of meeting, length, frequency, role or service offered, confidentiality, and duration of relationship. They begin to develop trust, and recognize one another as partners in the relationship.

- **Middle or working phase**: The PHN provides the counseling intervention and other relevant interventions, such as screening and referral and follow-up. The PHN and client develop an action plan to address identified problems and concerns.
- **Ending or resolution phase**: When problems and concerns have been addressed, the PHN and client end the relationship based on a mutual decision and celebrate goals met. If the goal(s) have not been accomplished, the PHN assists the client in identifying another option to address the problem or concern.

2. Maintain professional boundaries

The nature of the counseling relationship requires the PHN to be alert to the possibility of violation of professional boundaries.

A boundary violation may occur if the PHN becomes overly involved in a counseling intervention. The PHN needs to be aware of the potential for boundary violations when using the counseling intervention. The National Council of State Boards of Nursing (2014, p. 5) identified potential red flags leading to boundary violations:

- Discussing your intimate or personal issues with a patient
- Engaging in behaviors that could reasonably be interpreted as flirting
- Keeping secrets with a patient or for a patient
- Believing that you are the only one who truly understands or can help the patient
- Spending more time than is necessary with a particular patient
- Speaking poorly about colleagues or your employment setting with the patient and/or family
- Showing favoritism
- Meeting a patient in settings besides those used to provide direct patient care or when you are not at work

Strategies to maintain professional boundaries include discerning the difference between professional relationships and social relationships, and using reflection to discuss challenges around client relationships and boundaries with one's supervisor and colleagues. Examples of boundary maintenance challenges in PHN-client relationships include a client request to be a Facebook friend, or requests from neighbors for information about the well-being of an elderly client living in an apartment building (Schoon, Porta, & Schaffer, 2019).

3. Self-monitor the relationship

Self-monitoring is important for evaluating the appropriateness and effectiveness of counseling beyond one or two sessions. Ask the following questions:

- Who benefits from the counseling relationship?
- Are the goals mutually determined?
- What progress is being made toward achieving the goals?
- Is the client engaged in the counseling?
- What kind of feedback are you receiving from the client about the effectiveness of the counseling?
- For long-term counseling relationships, is evaluative supervision available to the PHN?

4. Select effective strategies and tailor them

Tailor strategies to address the specific health concern. Consider individual, group, telephone, email, or web-based sessions. Clients are more likely to positively view counseling interventions that are tailored to their preference and/or convenience (Kardeen, Smith, & Thornton, 2010; Pignone et al., 2003; Tahir & Al-Sadat, 2013).

5. Use an evidence-based behavior change model

Consider using the **five A's** or **motivational interviewing**. Evidence supports both models' effectiveness in using brief counseling aimed to change health behavior.

The following examples apply the five A's and motivational interviewing to a community-level counseling intervention, to address youth depression and the risk for suicide (Whitlock, Orleans, Pender, & Allen, 2002).

Five A's

The National Cancer Institute developed the four A's to guide physicians in talking about smoking cessation with primary care patients. The Canadian Task Force on Preventive Health Care added the fifth step, "agree." The U.S. Public Health Service has used the five A's in clinical trials on smoking cessation.

Assess behavioral health risks and factors affecting goals for change

> Example: There is a need to address youth suicide prevention in the community because of an increase in the incidence of suicide among 15- to 19-year-olds.

Advise by giving clear, specific, and personalized behavior change information about personal health harms/benefits.

> Example: Provide information about the incidence of depression in youth and the risk for suicide.

Agree by mutually selecting a treatment goals and strategies that are based on client interest and willingness to change behavior.

> Example: Collaborate with mental health centers, schools, and faith communities to select preferred strategies for addressing youth depression and suicide.

Assist with behavior change strategies (such as self-help and/or counseling) to help the client acquire the skills, confidence, and social/environmental supports for behavior change.

> Example: Provide evidence on strategy effectiveness to team/experts that develop strategies to promote community awareness about youth depression and suicide.

Arrange follow-up contacts to provide ongoing assistance/support and to adjust the plan as needed.

> Example: Make sure referral resources for youth depression and suicide are in place, and evaluate whether community attitudes have changed to viewing the problem as significant enough to address.

Motivational interviewing

The theory of motivational interviewing evolved out of scientific study and practice, beginning with the work of William R. Miller on addressing problem drinking in the 1980s (Richardson, 2012). A relational component emphasizes empathy, and a technical component promotes client engagement in the behavior change process (Miller & Rose, 2009).

Expressing empathy: Understand client perspectives.

> Example: Acknowledge that community organizations serving youth are upset about the increase in incidence of youth suicide.

Reducing ambivalence: Evaluate pros and cons of behavior and change.

> Example: Discuss the advantages and disadvantages of increasing community awareness via social media about youth depression and suicide.

Developing discrepancy: Explore conflict between current behavior and important goals and values.

> Example: Dialogue about the increasing incidence of youth suicide in the community and the connection to the silence surrounding depression.

Rolling with resistance: Acknowledge feelings, accept ambivalence, stay calm, address discrepancy.

> Example: When different viewpoints and strong emotions surface in discussion about response to youth depression and suicide, listen to everyone's voices, stay calm, and address evidence that supports promoting community awareness.

Supporting self-efficacy: Recognize strengths, and support ability to change.

> Example: Work with team/experts to communicate successful strategies in promoting community awareness about youth depression and suicide.

6. Identify and address behavior change barriers

The PHN identifies and addresses barriers prior to implementing the counseling intervention to address client motivation for change (Butterworth, 2008):

- They do not think they can.
- They are not ready for it.
- Their values do not support it.
- They do not think it is important.
- They do not believe it is needed.
- They do not have adequate support.

7. Avoid actions that support resistance

Avoid these actions that may lead to client resistance (Burnard, 2005; Huffman 2014):

- Arguing for the benefit of change
- Telling the client how to change
- Warning the client of the consequences of not changing
- Convincing the client they have a problem
- Interpreting the client's problem or behavior

8. Take cues from client perspectives

Counseling will be more effective when it is individualized and based on client perspectives. Consider the following guidelines (Burnard, 2005):

- Acknowledge that people differ from one another.
- Consider the client's belief and value system as a clue to problem-solving.
- Encourage the client to identify solutions for their problems.
- Acknowledge that every individual has responsibility for their behavior.

Example

A community sees an increased rate of suicide among its adolescent population.

1. Establish a therapeutic relationship

When meeting with community members to address the problem, respect and empathize with others' experiences with suicide in the community. Listen actively and withhold judgment of other's opinions on needed actions.

2. Maintain professional boundaries

Promote opportunities for community members to share their stories about experiences with suicide. Be mindful of confidentiality and appropriateness of sharing personal experiences regarding suicide.

3. Self-monitor the relationship

Assess community member engagement in addressing suicide rate reduction among adolescents in the community, and review progress on plan of action.

4. Select effective strategies and tailor them

With community members and professionals from the community, select strategies to increase community awareness about the increasing suicide rate, and establish a

crisis line. Strategies may include pamphlets, social media, messages on local television or radio, and messages from primary care providers.

5. Use an evidence-based behavior change model

See above examples for application of the five A's and motivational interviewing.

6. Identify and address possible barriers to behavior change

Provide an opportunity for members of the group to identify and discuss challenges in addressing the problem of increased suicide among adolescents.

7. Avoid actions that support resistance

Provide evidence about best practices or evidence-based interventions for reducing adolescent suicide. Avoid telling community members what they should do.

8. Take cues from client perspectives

Welcome all suggestions. Provide opportunities for all members to identify possible solutions in response to the increased adolescent suicide rate.

Key points from evidence

For a description of evidence levels, visit: **Introduction**: Overview of evidence-based practice and related topics.

1. Therapeutic alliance

The concept of therapeutic alliance establishes a foundation for the counseling intervention. Therapeutic alliance happens when the client and PHN interact collaboratively to determine goals for improved health through a respectful and trusting relationship. The three components of a therapeutic alliance are:

1. Collaborative tasks mutually understood
2. Goals mutually derived based on client readiness
3. Bonds that encompass a sense of compatibility, trust, respect, and caring

Level 3 source:

- Spiers & Wood, 2013

Level 5 source:

- Zugai, Stein, & Roche, 2015

2. Client attributes for effective response

Client attributes facilitate effective response to behavior change counseling include:

- Strong desire and intent to change
- Few barriers to change
- Skills and self-confidence needed for change
- Belief that change results in benefits
- Support for change from valued persons and community

Level 4 source:

- Whitlock et al., 2002

3. Adapting strategies for diverse needs

Adapt counseling strategies to address the needs of culturally diverse clients and improve health outcomes. An empowerment-based approach will facilitate the understanding client viewpoints, and encourage client involvement in decision-making.

Level 1 source:

- Jesse et al., 2015

Level 3 source:

- Fagerlund, Pettersen, Terragni, & Glavin, 2016

4. When to refer clients

Refer client when the following occurs:

- The client is non-responsive to the PHN intervention.
- The PHN does not have the capacity or time to continue the intervention.
- The client needs a specialist, or more intensive counseling or psychotherapy.

Level 5 source:

- Freshwater, 2003

5. Client peer groups

Client peer groups facilitated by PHNs provide support, establish social networks, and facilitate health promotion.

Level 2 source:

- Hall & Grundy, 2014

Level 3 sources:

- Glavin, Tveiten, Økland, & Hjalmhult, 2016
- Sekse et al., 2014

■ 6. Motivational interviewing

Motivational interviewing improves client outcomes for a variety of age groups, settings, and health concerns, including diabetes, chronic disease management, smoking, alcohol consumption, and health promotion behaviors. Motivational interviewing is low-risk, is comparably effective to alternative treatments, and can take less time than other treatments.

Level 1 sources:

- Lindson-Hawley, Thompson, & Begh, 2015
- VanBuskirk & Wetherell, 2014

Level 2 sources:

- Chlebowy et al., 2015
- Lundahl, Kunz, Brownell, Tollefson, & Burke, 2010
- Tse, Vong, & Tang, 2013

Level 5 sources:

- Cummings, Cooper, & Cassie, 2009
- Laakso, 2012

■ 7. Training in behavior change strategies

Education or training in behavior change strategies improves skill and confidence in communication skills that facilitate client behavior change.

Level 2 source:

- Phister-Minogue & Salveson, 2010

■ 8. PHNs as information channels in community risk counseling

In community risk counseling situations, PHNs can function as information channels in the community and build their risk communication capacities to support residents in making well-informed decisions.

Level 3 source:

- Goto et al., 2014

Wheel notes

Challenges

PHNs may encounter challenges as they implement the counseling intervention. One challenge occurs when PHNs do not view themselves as counselors. An example of this is in school environments where academic counselors are present (Schaffer, Anderson, & Rising; 2016). In this situation, it is important for the PHN to know that

they do provide the counseling intervention related to health problems when they address the emotional component of responding to a health concern.

Public health nurses encounter a second challenge when they do not have time in their practice for the counseling intervention. However, some PHNs view counseling capacity as part of their skill set for addressing a population's needs and as part of an intervention program. This is the case for practitioners participating in the Nurse-Family Partnership (2011), an evidence-based program that provides support to new mothers. In other roles, the PHN may provide brief counseling interventions along with **health teaching**. The five A's and motivational interviewing work well in brief counseling situations.

A third challenge for PHNs is gaining the expertise to effectively use brief counseling strategies. Continuing education opportunities assist PHNs in developing motivational interviewing skills. The Behavior Change Counseling Index (BECCI), a reliable, short, and easy-to-administer assessment tool, evaluates public health nursing competence in behavior change counseling. The 11 items on the BECCI scale measure effectiveness of behavior change counseling (Phister-Minogue & Salveson, 2010).

Community- and systems-level counseling

Since counseling is most often understood as an individual-level intervention, PHNs may find it difficult to implement it at other levels. The following paragraphs detail the use of the counseling intervention at the community and systems levels and address the question, "What is being changed?"

Community level

- The goal of counseling at the community level is to change community norms, attitudes, awareness, practices, and/or behaviors.
- School nurses provide counseling at the community level when they design counseling strategies to develop community awareness about bullying behavior in the school setting and the negative impact on health. The counseling strategy could involve group meetings, to communicate information and consider a commitment to address bullying behavior among the school community, parents, and other organizations serving schoolchildren.

Systems level

- At the systems level, the goal of counseling is to change rules within organizations, infrastructure, policies, laws, and power structures. Stigma against mental illness is present in many organizations and societal structures. When meeting with health department colleagues to develop a systems-level plan to address mental health, PHNs can encourage making a commitment to include mental health as a priority in designing organizational services, programs, and policies.

References

Burnard, P. (2005). *Counseling skills for health professionals*. Cheltenham, United Kingdom: Nelson-Thomes Ltd.

Butterworth, S. W. (2008). Influencing patient adherence to treatment guidelines. *Journal of Managed Care Pharmacy, 14*(6 Suppl B), 21-24.

Chlebowy, D. O., El-Mallakh, P., Myers, J., Kubiak, N., Cloud, R. & Wall, M. P. (2015). Motivational interviewing to improve diabetes outcomes in African American adults with diabetes. *Western Journal of Nursing Research, 37*(5), 566–580. doi:10.1177/0193945914530522

Cummings, S. M., Cooper, R., L., & Cassie, K. M. (2009). Motivational Interviewing to affect behavioral change in older adults. *Research on Social Work Practice, 19*(2), 195-204. doi:10.1177/1049731508320216

Duaso, M. J., & Duncan, D. (2012). Health impact of smoking and smoking cessation strategies: Current evidence. *British Journal of Community Nursing 17*(8), 356-363. 10.12968/bjcn.2012.17.8.356

Fagerlund, B. H., Pettersen, K. S., Terragni, T., & Glavin, K. (2016). Counseling Immigrant Parents about Food and Feeding Practices: Public Health Nurses' Experiences. *Public Health Nursing, 33*(4, 343-350. doi: 10.1111/phn.12248

Freshwater, D. (2003). *Counselling skills for nurses, midwives, and health visitors*. Philadelphia: Open University Press.

Glavin, K., Tveiten, S., Økland, T., & Hjalmhult, E. (2016). Maternity groups in the postpartum period at well child clinics – mothers' experiences. *Journal of Clinical Nursing*, Epub. doi: 10.1111/jocn.13654

Goto, A., Rudd, R. E., Lai, A. Y., Yoshida, K., Suzuki, R., Halstead, D. D., et al. (2014). Leveraging public health nurses for disaster risk communication in Fukushima City: a qualitative analysis of nurses' written records of parenting counseling and peer discussions. *BMC Health Services Research, 14*, 129. doi: 10.1186/1472-6963-14-129.

Hall, K. & Grundy, S. (2014). An analysis of Time 4U, a therapeutic group for women with postnatal depression. *Community Practitioner, 87*(9), 25-28. doi: 10.1111/1552-6909.12734

Huffman, M. (2014). Using motivational interviewing through evidence-based coaching. *Home Healthcare Nurse, 32*(9), 543-548.

Jesse, D. E., Gaynes, B. N., Feldhousen, E. B., Newton, E. R., Bunch, S., & Hollon, S. D. (2015). Performance of a culturally tailored cognitive-behavioral intervention integrated in a public health setting to reduce risk of antepartum depression: A randomized controlled trial. *Journal of Midwifery & Women's Health, 60*, 578-592.

Kardeen, S., Smith, K., & Thornton, K. (2010). Smoking Cessation: Counseling or No Counseling? *The American Journal for Nurse Practitioners, 14*(3), 33-38.

Laakso, L. J. (2012). Motivational interviewing: Addressing ambivalence to improve medication adherence in patients with bipolar disorder. *Issues in Mental Health Nursing, 33*, 8-14. doi: 10.3109/01612840.2011.618238

Lindson-Hawley, N.,Thompson, T. P., & Begh, R.(2015). Motivational interviewing for smoking cessation. *Cochrane Database of Systematic Reviews Issue 3*. Art. No.: CD006936. doi: 10.1002/14651858.CD006936.pub3

Lundahl, B. W., Kunz, C., Brownell, C., Tollefson, D., & Burke, B. L. (2010). A meta-analysis of motivational interviewing: Twenty-five years of empirical studies. *Research on Social Work Practice, 20*(2), 137-160. doi: 10.1177/1049731509347850

Miller, W. R. & Rose, G. S. (2009). Toward a theory of motivational interviewing. *The American Psychologist, 64*(6), 527-537. doi:10.1037/a0016830.

National Council of State Boards of Nursing. (2014). *A nurse's guide to professional boundaries*. Retrieved from https://www.ncsbn.org/3757.htm

Nurse-Family Partnership (2011). *Nurse home visitors' role*. Retrieved from http://www.nursefamilypartnership.org/nurses/nurse-home-visitors-role

Pfister-Minogue, K. A. & Salveson, C. (2010). Training and experience of public health nurses in using behavior change counseling. *Public Health Nursing, 27*(6), 544-551. doi: 10.1111/j.1525-1446.2010.00884.x

Pignone, M. P., Ammerman, A., Fernandez, L., Orleans, C. T., Pender, N., Woolf, S., et al. (2003). Counseling to promote a healthy diet in adults: A summary of the evidence for the U.S. Preventive Services Task Force. *American Journal of Preventive Medicine. 24*(1), 75-92.

Registered Nurses Association of Ontario (2002; 2006). *Establishing therapeutic relationships. Toronto, Canada: Registered Nurses Association of Ontario*. Retrieved from https://rnao.ca/bpg/guidelines/establishing-therapeutic-relationships

Richardson, L. (2012). Motivational interviewing: Helping patients move toward change. *Journal of Christian Nursing, 29*(1), 18-24. doi: 10.1097/CNJ.0b013e318238e510

Schaffer, M. A., Anderson, L. J. W., & Rising, S. (2016). Public health interventions for school nursing practice. *Journal of School Nursing, 32*(3), 195-208. doi:10.1177/1059840515605361

Schoon, P. M., Porta, C. M., & Schaffer, M. A. (2019). *Population-based public health clinical manual: The Henry Street model for nurses, 3rd ed*. Indianapolis, IN: Sigma Theta Tau International Society of Nursing.

Sekse, R. J. T., Blaaka, G., Buestad, I., Tengesdal, E., Paulsen, A., & Vika, M. (2014). Education and counselling group intervention for women treated for gynaecological cancer: Does it help? *Scandinavian Journal of Caring Sciences, 28*, 112-121. doi: 10.1111/scs.12024

Spiers, J. A. & Wood, A. (2010). Building a therapeutic alliance in brief therapy: The experience of community mental health nurses. *Archives of Psychiatric Nursing, 24*(6), 373-386. doi:10.1016/j.apnu.2010.03.001

Tahir, N. M. & Al-Sadat, N. (2013). Does telephone lactation counselling improve breastfeeding practices: A randomized controlled trial. *International Journal of Nursing Studies 50*, 16-25. doi.org/10.1016/j.ijnurstu.2012.09.006

Tse, M., Vong, S., & Tang, S. K. (2013). Motivational interviewing and exercise programme for community-dwelling older persons with chronic pain: a randomized controlled study. *Journal of Clinical Nursing, 22*, 1843-1856, doi: 10.1111/j.1365-2702.2012.04317.x 1843

VanBuskirk, K. A. & Wetherell, J. L. (2014). Motivational interviewing with primary care populations: A systematic review and meta-analysis. *Journal of Behavioral Medicine, 37*, 768-780. doi: 10.1007/s10865-013-9527-4

Whitlock, E. P., Orleans, C. T., Pender, N., & Allen, J. (2002). Evaluating primary care behavioral counseling interventions: An evidence-based approach. *American Journal of Preventive Medicine, 22*(4), 267-284.

Zugai, J. S., Stein, J., & Roche, M. (2015) Therapeutic alliance in mental health nursing: An evolutionary concept analysis. *Issues in Mental Health Nursing, 36*, 4, 249-257. doi: 10.3109/01612840.2014.969795
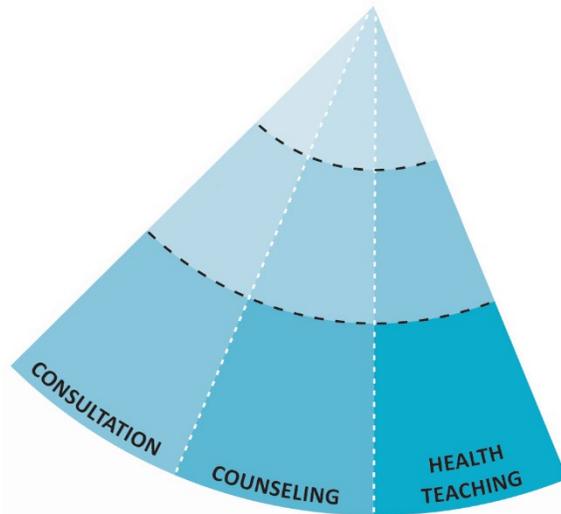
Consultation

Consultation seeks information and generates optimal solutions to perceived problems or issues through interactive problem-solving.

Practice-level examples

Population of interest: Entire community.

Problem: Increase in incidence of measles (rubeola).

Systems level

The public health nurse (PHN) meets with childcare staff to discuss actions staff can take to prevent an outbreak of measles at a childcare center, resulting in a protocol for communicating about symptoms of illness.

Community level

A PHN organizes a community meeting for parents with concerns about immunizations, to answer questions about risks of measles and prevention.

Individual/family level

After a child has been diagnosed with measles, a PHN mutually develops a plan with his parents during a home visit to prevent other family members from contracting measles.

Relationship with other interventions

Consultation is frequently implemented in conjunction with or sequentially to **health teaching** and/or **counseling**. Health teaching influences the knowledge, attitudes, values, beliefs, practices, skills, and behaviors of individuals/ families, communities, or systems. Counseling focuses on the emotional component inherent in any attempt to change. Consultation seeks to generate alternative solutions to problems.

For example, a PHN provides health teaching about the prevalence, incidence, and causes of family violence at a community meeting. The information is likely to trigger emotional responses. Implementing counseling strategies in conjunction with health teaching builds on the energy associated with the emotional response, and further enhances the learning opportunity. A community may respond to information on family violence with powerful emotions like anger, outrage, fear, and grief. These emotions can motivate the community to learn more about the problem and its causes. If the community uses this new information to decide what to do to change its tolerance of family violence, the PHN assists in exploring different alternatives, providing consultation.

Collaboration with individuals/families, communities, and systems is essential for an effective consultation process. The PHN needs to understand the client view of the problem and possible strategies to resolve the problem.

Basic steps

Consultation models are found in nursing, educational, organizational disciplines, and business. Consultants may provide consultation internally (within the organization) or externally (to persons outside the organization or to other organizations).

Consultation may be done informally, such as with clients during home visits or with colleagues making a professional decision. PHNs informally consult with individuals/families, groups, communities, and systems about topics like immunization recommendations and healthy eating habits. The consultation process may also be formal and involve a contract that specifies clear expectations. The client is responsible for acting on decisions made during the consultation process.

A useful model for PHN consultation is the process consultation model developed by Edgar Schein. "The process model of consultation focuses on the process or problem solving and collaboration between the consultant and client" (Turner, 2016, p. 872). The major goal of process consultation is to assist the individual/family, group, community, or systems to assess and identify the problem as well as determine what help is needed to solve the problem.

Norwood (2003) describes the steps of the nursing consultation process when working with communities:

1. Gain entry

With the initial contact, the PHN determines whether they are the best fit for providing the consultation.

a. Scan the environment. Ask the following questions:
   - Who is involved?
   - What do they want?
   - Am I the right person (values, skills)?
b. Establish a contract for formal consultation at the community or systems level. What are important items to include in a contract to clarify expectations (Turner, 2016, p. 873)?
   - Consultation goals (for both consultant and client)
   - Identified problem
   - Resources
   - Time commitment
   - Limitations of contract
   - Costs
   - Conditions under which contract can be broken or renegotiated
   - Intervention strategies
   - Expected benefits for client
   - Data collection methods
   - Evaluation methods
   - Confidentiality
c. Gain physical entry: This means the consultant is accepted and is available.
d. Initiate psychological entry: The consultant establishes rapport, trust, and credibility in the consultation relationship.

2. Identify the problem

The consultant and client assess the problem together and decide what information the client needs to solve the problem.

Without client input, the correct problem may not be identified.

The problem identification phase includes:

a. Assessment; example assessment questions include (Norwood, 2003, p. 175):
   - What is the history and content of this problem?
   - What is causing this situation?

- What is needed to have a healthy community?
- What do we need to address in order to implement the change?
  b. Diagnosis
  c. Communicating assessment findings

3. Determine action planning

Action planning involves working together to decide what to do in response to the problem.

Like the nursing process, the plan lays out clear steps needed to bring about a health improvement.

Action planning tasks include:

a. Setting meaningful, acceptable, and realistic goals
b. Establishing priorities
c. Choosing a problem solution and identify what makes the solution acceptable
d. Developing the specific action plan; this includes identification of objectives, tasks, who will do what, needed resources, and costs
e. Facilitating action plan implementation: When consulting with a community or organization, the consultant may need to lay groundwork for implementation; laying the groundwork includes actions like team-building, managing transitions that result in new situations and processes, and helping the group or organization determine diffusion strategies to motivate change

4. Evaluate effectiveness

The evaluation focuses on the consultation relationship and occurs on a continuing basis throughout the consultation process. In addition, the evaluation promotes accountability for consultant and client.

Interventions in the action plan are usually not evaluated because the consultee may not actually implement the proposed action plan. Since the consultant may need to revise the consultation process, evaluating the consultation relationship will help determine if a change needs to be made in the process.

Evaluation tasks include (Norwood, 2003, pp. 235-241):

a. Identifying evaluation content: 1) goal progress, 2) event evaluation (like team-building or education sessions), and 3) relationship evaluation (rapport, credibility, communication)
b. Selecting effectiveness criteria (e.g., cognitive or knowledge change, behavior change, goal accomplishment, satisfaction)
c. Specifying performance standards for comparing outcomes
d. Identifying data sources
e. Determine data collection strategies (e.g., surveys, interviews, observations, case study)

5. Disengage from the relationship

Disengagement is the process of "letting go" and "securing the future" (Norwood, 2003, p. 254). Both the consultant and client agree to end the consultation process.

Disengagement encourages the client to take on the problem-solving role, which they can transfer to future situations. They become more self-reliant.

Disengagement tasks include (Norwood, 2003, pp. 257-261):

a. Determining readiness to disengage (unlikely to achieve goal/successful outcome)
b. Establishing change maintenance supports; this could include reduced involvement, intermittent follow-up, or establishing community supports
c. Managing psychodynamics; providing a timeline for disengagement may decrease the stress of the disengagement process
d. Achieving closure: Be intentional about promoting a sense of satisfaction and accomplishment; celebrate successes and leave the door open for future contact (Norwood, 2003, p. 262)

Example

A PHN meets with childcare staff at a childcare center to discuss actions staff can take to prevent a potential outbreak of measles among children at the childcare center.

1. Gain entry

The city health department has a contract with ten childcare centers for a PHN to provide consultation in monthly meetings with childcare staff about health concerns. The PHN has provided consultation for the childcare centers for the past two years.

2. Identify the problems

In a monthly meeting with one of the childcare centers, the director asks for assistance with decision-making about how to control the spread of measles, which has been diagnosed in one of the children.

3. Determine action planning

Together the director and PHN identify realistic strategies that childcare center staff could take to reduce the spread of measles to children. They discussed how to communicate information about the potential for illness to parents of the children.

4. Evaluate effectiveness

The childcare center staff observed the children for any incidence of illness and keep records of any illness with symptoms that could be caused by measles. In a following

meeting, the PHN reviews with the day care director their satisfaction with the decisions made during the consultation.

5. Disengage from the relationship

In this example, there is not a formal disengagement task, since the consultation is part of an ongoing contract. However, disengagement occurs over the specific consultation on the transmission of measles. The PHN and childcare center staff acknowledge successfully preventing any additional transmission of measles.

Key points from evidence

For a description of evidence levels, visit: **Introduction**: Overview of evidence-based practice and related topics.

1. Cultural context

Knowledge about the culture of the individual/family, community, or system is essential for establishing an effective consultation relationship. Consider the cultural context in implementing consultation intervention tasks.

Level 5 source:

- Holcomb-McCoy & Bryan, 2010

2. Empowering clients to make decisions

Empower the individual/family, community, or system to make decisions. When a PHN provides consultation, they ensure that the client has "the necessary knowledge, skills, and resources to effectively make the decisions for which they are held accountable" (Turner, 2016, p. 875).

Level 5 sources:

- Holcomb-McCoy & Bryan, 2010
- Turner, 2016

3. Encouraging clients to actively engage

Encourage clients to actively engage in the consultation process to increase decision-making capacity. A campaign to promote best practices for bringing a client's voice into health care decisions proposed encouraging clients to ask the following questions:

- What are my options?
- What are the pros and cons of each option for me?
- How do I get support to help me make a decision that is right for me?

Level 4 source:

- Pollock, 2012

4. Consultation roles

For the consultation intervention, the PHN selects from these relevant roles:

Nursing consultation roles:

- Fact-finding
- Diagnosing
- Advocacy
- Directing solution implementation
- Educating
- Coordinating resources

Process-oriented roles:

- Joint problem-solving
- Process counseling

Universal roles:

- Providing expertise
- Presenting information
- Role-modeling
- Providing leadership

Level 5 source:

- Norwood, 2003

5. Guidance for the consultation process

Edgar Schein, known for his work on organizational culture theory, expands on the concept of process consultation, in which the consultant helps the client "to perceive, understand, and act upon process events that occur in the client's environment" (Miner, 2007, p. 317). Schein developed a set of principles to provide guidance to the consultant for guiding the consultation process:

- Always try to be helpful.
- Always stay in touch with the current reality.
- Access your ignorance.
- Everything you do is an intervention. It is the client who owns the problem and the solution.
- Go with the flow.
- Timing is crucial.
- Be constructively opportunistic with confrontational interventions.
- Everything is a source of data; errors will occur and are the prime source for learning.
- When in doubt, share the problem.

Along with practical tips, these principles emphasize the collaborative process involved in consultation.

Level 5 source:

- Miner, 2007

6. Ethical principles in conducting research

The following ethical principles are useful for guiding the consultation process when conducting research with communities:

- Enhanced protection: Identify risks, hazards, and possible protections for subjects and communities.
- Enhanced benefits: Identify benefits for participants in the study as well as the population in the community.
- Legitimacy: Provide an opportunity for stakeholders relevant to the proposed research to express their perspectives and concern, before the research protocol is finalized.
- Shared responsibility: Promote opportunities for community members to take some responsibilities for conducting the study.

Level 5 source:

- Dickert & Sugarman, 2005

7. Specialists and improved quality of care

Using specialists in the consultant role improves quality of care. For example, a mental health specialist provides consultation to PHNs staffing Women, Infant, and Children (WIC) Supplemental Food Program clinics and providing home visits. The mental health specialist provides telephone screening, intervention, and referral. This program reaches a maternal child health population with multiple risk factors.

Level 5 source:

- Gaul & Farkas, 2007

8. Improving the consultation process

Specific strategies to improve the consultation process include:

- Provider training
- Developing condition-specific educational materials
- Teaching patients to ask questions during the consultation

Level 1 source:

- Dwamena et al., 2013

Wheel notes

Contrast with counseling and health teaching

Literature on the PHN consultation intervention is less abundant than for the other two interventions located in the blue wedge of the Intervention Wheel (**health teaching** and **counseling**). Literature from countries outside the United States sometimes uses the

term "consultation" to describe public health nursing actions closely aligned with the counseling intervention. With consultation, the PHN uses knowledge and expertise to empower client decision making. The difference between consultation and counseling at the individual level appears to be less distinct than at the community and systems levels, because both interventions aim to promote effective client decision-making. Consultation focuses is on collaborative problem-solving. The client is responsible for choosing the best option. In health teaching and counseling, the PHN is likely supporting specific actions for improving health status. The PHN provides information during the health teaching intervention, and assists the client in addressing emotional and motivational components during the counseling intervention.

Systems level

Most studies on consultation interventions in public health nursing describe individual-level interventions. A systematic review found that, out of 23 studies on public health nursing interventions in elderly populations, consultation interventions occurred at the individual level in seven studies and at the systems level in one study (Schaffer, Kalfoss, & Glavin, 2017). At the systems level, community nurses and allied health professionals in Scotland received consultation during a one-day smoking cessation training, which improved the knowledge and attitudes about smoking cessation strategies for the intervention group compared to the control group (Kerr, Whyte, Watson, Tolson, & McFadyen, 2011). Anderson and colleagues (2017) found that topics of systems-level consultation provided by school nurses included medication policy, the location of automatic external defibrillators in the school building, use of concussion guidelines, and schoolchildren's health care needs.

Rigor of evidence

Evidence on nursing consultation at the community and systems levels lacks the rigor of the research process. Most articles describe non-research evidence related to program or project initiatives. For example, an open-access online learning resource was developed for community nurses in England to use in their consultation with caregivers (Maskell, Somerville, & Mathews, 2015). In another example, Canadian PHNs with expertise in domestic violence developed a project to share their knowledge of how to intervene with clients experiencing domestic violence. The expert PHNs worked together with other PHNs to develop a referral process, identify resources, and build a collaborative partnership for a coordinated community response to domestic violence (Snell, 2015).

References

Anderson, L. J. W., Schaffer, M. A., Hiltz, C., O'Leary, S. A., Luehr, R. E., & Yoney, E. L. (2017). Public health interventions: School nurse practice stories. *Journal of School Nursing*, pp. 1-11, online. doi: 10.1177/1059840517721951

Dickert, D. & Sugarman, J. (2005). Ethical goals of community consultation in research. *American Journal of Public Health, 95*(7), 1123-1127. doi:10.2105/AJPH.2004.058933

Dwamena, F., Holmes-Rovner, M., Gaulden, C. M., Jorgenson, S., Sadigh, G., Sikorskii, A., et al. (2012). Interventions for providers to promote a patient-centred approach in clinical consultations (Review). *Cochrane Database of Systematic Reviews, 12*(12).

Gaul, C. E. & Farkas, C. (2007). Perspectives in psychiatric consultation Liaison Nursing. *Perspectives in Psychiatric Nursing, 43*(4), 237-240.

Holcomb-McCoy, C. & Bryan, J. (2010). Advocacy and empowerment in parent consultation: Implications for theory and practice. *Journal of Counseling & Development, 88*, 259-268.

Kerr, S., Whyte, R., Watson, H., Tolson, D., & McFadyen, A.K. (2011). A mixed-methods evaluation of the effectiveness of tailored smoking cessation training for healthcare practitioners who work with older people. *Worldviews on Evidence-Based Nursing, 8*(3): 177-186. doi: 10.1111/j.1741-6787.2011.00219.x

Maskell, P., Somerville, M., & Mathews, A. (2015). Supporting carers: A learning resource for community nurses. *British Journal of Community Nursing, 20*(7), 335-337.

Miner, J. B. (2007). Edgar Schein's Organizational-Culture Theory to organization development (particularly involving process consultation). In *Organizational behavior 4: From theory to practice*, (pp. 316-330). New York: Routledge.

Norwood, S. L. (2003). *Nursing consultation: A framework for working with communities*. New Jersey: Upper Saddle River.

Pollock, J. (2012). The three questions patients need to ask to speed up consultation times. *British Journal of Community Nursing 17*(11), 547.

Schaffer, M. A., Anderson, L. J. W., & Rising, S. (2016). Public health interventions for school nursing practice. *Journal of School Nursing, 32*(3), 195-208. doi: 10.1177/1059840515605361

Schaffer, M. A., Kalfoss, M., & Glavin, K. (2017). Public health nursing interventions to promote quality of life in older adult populations: A systematic review. *Journal of Nursing Education and Practice, 7*(11), 92-106. doi: 10.5430/jnep.v7n11p92

Snell, D. (2015). Leading the way: Implementing a domestic violence assessment pilot project by public health nurses. *Nursing Leadership, 28*(1), 65-72.

Turner, L. P. (2016). The nurse leader in the community. In M. Stanhope & J. Lancaster (Eds.). *Public health nursing: Population-centered health care in the community* (pp. 867-884). St. Louis, MO: Elsevier.
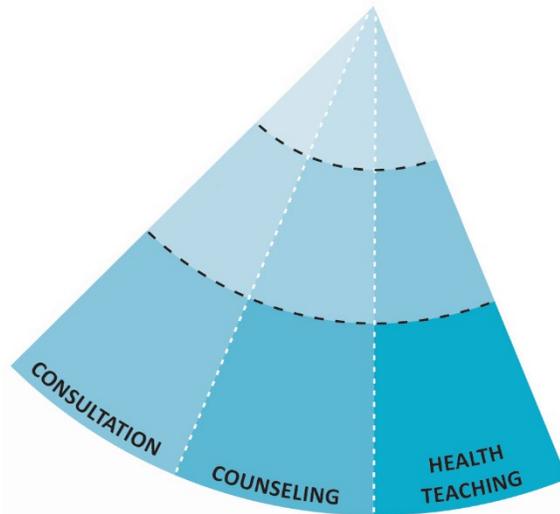
In review

A story:

School nurses in a large urban school district note the school is enrolling a large number of new students recently emigrated from Somalia with their families. The school nurses realize that they often expect families to come to them with concerns about their child's health. The school nurses decide to go to the neighborhood where many Somali families live in order to make connections with parents.

The school nurses contact the local health department to inquire about any existing programs and information about health needs and services for Somali families. The local health department provides resources about the Somali culture and connects the school nurses with a local housing manager to arrange for a meeting space easily accessible to Somali families.

School nurses in the district collaborate to offer "Ask a Nurse" sessions at a housing complex where many Somali families live with their school-aged children. They arrange for a space to meet in the housing complex and create a welcoming environment with culturally appropriate beverages and food. Instead of waiting for the parents to come to them, the school nurses intentionally connect with Somali parents to develop trusting relationships that will lead to improved population health.

For the blue wedge, which features health teaching, counseling, and consultation, think about how these interventions could occur both in the development and implementation of "Ask a Nurse" sessions.

Application questions

Consider the following questions related to "Ask a Nurse" sessions that school nurses offered to Somali parents.

Practice level

1. Describe how the story reflects each practice level (individual/family, community, and systems).

Health teaching

2. How would you identify topics for the sessions of interest to the families? How might culture and disparities in this population influence topics identified or selected?
3. What teaching-learning principles are especially relevant for health teaching with Somali parents?
4. What actions would you take to engage learners attending these sessions?

Counseling

5. How can school nurses balance developing trusting relationships with Somali parents with maintaining professional boundaries? How might biases and assumptions affect the relationship?
6. How could the five A's or motivational interviewing be used in facilitating behavior change, counseling parents about childhood immunizations, and developing school immunization policy?
7. How can school nurses employ an approach that builds on the assets of Somali families rather than perceived deficits?

Consultation

8. If you were a PHN that had experience working with diverse populations, how would you use the process consultation model to consult with school nurses developing and implementing "Ask a Nurse" sessions?
9. Somali parents have expertise on their culture and how that affects their decisions about their children's health care. School nurses have expert knowledge about children's health care needs. What does applying the consultation process look like for "gaining entry" in interacting with Somali parents about their children's health care needs?
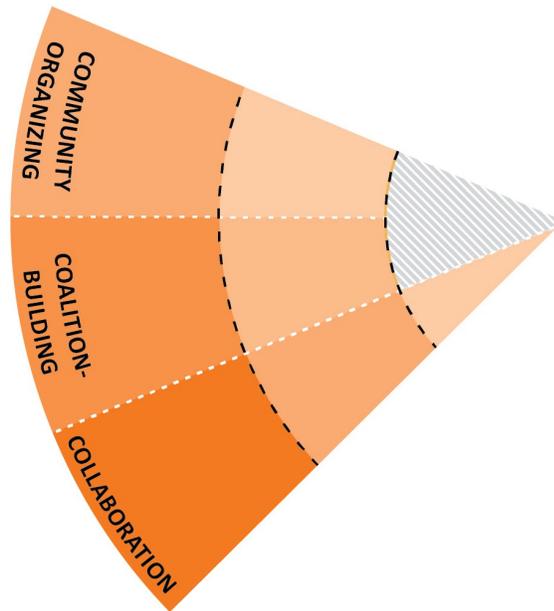
Collaboration

Collaboration enhances the capacity to promote and protect health for mutual benefit and a common purpose. Collaboration involves exchanging information, harmonized activities, and shared resources (National Business Coalition on Health, 2008).

Developing and sustaining partnerships is crucial for effective collaboration. Partnership requires "a respectful, negotiated way of working together that enables choice, participation, and equity, within an honest, trusting relationship that is based in empathy, support, and reciprocity" (Bidmead, 2005, p. 203).

Collaboration involves a high level of commitment and a complex partnership endeavor. It includes networking, coordinating, and cooperating activities that all lead to enhancing each partner's capacity to achieve a common purpose: Partners network when they exchange information for mutual benefit; coordinate when they adapt activities that result in mutual beneficial and achieve a common purpose; and cooperate when they share resources (staff, financial, technical) to achieve a common purpose and mutual benefit (Centers for Disease Control and Prevention, 2011).

Practice-level examples

Population of interest: Community-dwelling older adults.

Problem: Potential for injury due to falls.

Systems level

A public health nurse (PHN) collaborates on an initiative to prevent falls in older adults. Collaborative partners in the community include the ambulance service, fire department, senior centers, university extension services, and several hospital departments (emergency, pharmacy, rehabilitation services, physical therapy, and home care). The initiative seeks to standardize the provider approach to seniors and their potential for falls. Service providers agree to address the topic of fall prevention any time they provide a service to an older adult, complete a short risk screening, and make referrals for home assessment when indicated.

Community level

A PHN joins forces with older adults at the local senior center to plan a program to change community perception that falling is inevitable as a person ages. The PHN provides home safety checklists and educational materials. The older adults add stories of their experiences and what they would have done differently had they known more about fall prevention. The older adults and the PHN present the program together at congregate dining centers located in senior centers, churches, or senior housing communities.

Individual/family level

Older adults self-refer to a program in which PHNs make home visits to older adults to prevent falls. Older adults may also be referred from other organizations. Together the PHN and older adult make a plan to remove or reduce injury risks. This includes reviewing medications that affect balance; home modifications to reduce fall hazards, such as installing grab bars, improving lighting, and removing items that cause tripping; and exercise to improve strength, balance, and coordination.

Relationship with other interventions

Community organizing, **coalition-building**, and collaboration involve partnerships. Because of this, they share many features, especially at the community level of practice.

Similarities among these three interventions include empowerment, which enables individuals and communities to take control of their lives and environments. Client perceptions and experiences are key. At the community level, community engagement is relevant to all three interventions. In community engagement, partners collaboratively work with populations grouped by geographic location, special interests,

or similar health concerns to respond to issues that affect group or population well-being (U.S. Department of Health and Human Services, 2011).

Unlike coalition-building and community organizing, collaboration requires being willing to enhance the capacity of one or more collaboration members over and above one's own interests, in order to achieve common goals. When collaborating, a person or organization agrees to the risk (or benefit) of transformation or change through their involvement. Although coalition-building and community organizing occur only at the systems and community levels, collaboration occurs at all three practice levels, including the individual/family level of PHN practice.

Collaboration relates to interventions in other wedges. Like coalition-building and community organizing, collaboration can be implemented in conjunction with **policy development and enforcement** to change the way systems in a community operate, or to change a community-held norm or belief. Collaboration is also often a co-intervention with **advocacy**, and a preferred co-intervention with **delegated functions**. The collaboration intervention is potentially useful for any activity in which the PHN partners with others. At the individual/family level of practice, collaboration often pairs with **health teaching**, **counseling**, **consultation**, and **case management**.

Basic steps: Community level

A partnership development guide (Centers for Disease Control and Prevention, 2011) suggests the following steps to establish and continue collaboration:

1. Determine the need

A partnership facilitates achieving specific goals, which members find more difficult to achieve without the partnership.

The following questions assess the need for a partnership:

a.   How will a partnership contribute to accomplishing the goal?
b.   What are some critical activities that members must sustain, expand, or improve?
c.   What program activities are more effective with a partner?
d.   How might a partnership assist in program efforts?
e.   What are the benefits of a partnership, and are there any costs to consider?

2. Assess potential partners

Assessing potential partners' resources, skills, and knowledge increases the understanding of their potential contribution to the partnership.

The following questions assess potential partner contributions:

a.   What potential partners do we know?
b.   What is the expected outcome of the partnership?
c.   Have we sought out new and nontraditional partners?

d. Do we have a history of good relations with the potential partner? What were the successes and challenges?
e. What specific resources will this potential partner contribute to the outcomes or products expected from the partnership?
f. What might be some potential drawbacks in collaborating with this partner?
g. How will the potential partner(s) benefit from the partnership?
h. What resources would be valuable to the partnership? Who has those resources?
i. Does the potential partner understand and support our priorities or have similar priorities?
j. Is there a person (a champion) who will work to make sure the partnership happens?

3. Develop the partnership

A concrete, organized, and practical approach to partnership development supports a common understanding of the perspectives and contributions of each partner.

a. Determine the resources your program can contribute to the partnership.
b. Develop a document that outlines the mutual benefits of partnership.
c. Know your program and be able to describe it in a succinct manner.
d. Learn about the culture of this potential partner to consider when working together.
e. Meet with the potential partner in person. Because a critical component of a partnership is relationship building, in-person meetings are preferable.
f. Take the time to establish rapport and build trust.
g. Give a general overview of your program.
h. Explain your program's specific needs and why the partnership would be helpful.
i. Ask about the potential partner's organization and perspective, keeping in mind findings from background research.
j. Ask what needs the partner has, and discuss how your program might help meet those needs.
k. Ask what resources the partner can contribute to the partnership.
l. Make a clear and specific "ask" of the partner. If possible, your "ask" should be task-oriented, with a beginning and an end. Do not expect partners to know what you need; make it as easy as possible for them to collaborate with you.

4. Formalize the partnership

A formal agreement guides partnership relationships and actions.

a. Determine a shared vision or mission statement.
b. Develop a partnership action plan with mutually accepted objectives.
c. Define member roles and responsibilities.
d. Develop timelines.
e. Clarify leadership and communication responsibilities.
f. Determine decision-making procedures, ground rules, and additional needed resources.

5. Maintain and sustain the partnership

A professional partnership requires time, nurturing, and respect.

a. Communicate regularly. Agree on a mutually convenient time and method for checking in, verbally, by email, or by another means.
b. Develop a feedback plan for assessing how the partnership is working for both parties. Build on successes, address problems, and explore ways to enhance the partnership.
c. Respect the partner's boundaries, structure, procedures, and processes.
d. Express appreciation verbally or in writing.
e. With their permission, give your partner credit and recognition in public forums.
f. Be flexible and open to change as the partnership develops.
g. Formalize a review of the partnership by creating an evaluation form that measures satisfaction with the partnership.
h. Discuss and use the results of the partnership evaluation to improve the partnership.
i. Discuss each partner's goals for the partnership over the long term, and what criteria to use for continuing the partnership. Keep track of partnership activities, and evaluate progress and accomplishments.
j. Communicate results of partnership activities with partners and with relevant stakeholders/community members, to show areas of success and areas for improvement.

6. End the partnership (or not)

When a program outgrows the need for the partner or needs change, the partnership may no longer be crucial to success or effectiveness.

a. Meet with the partner and talk about the situation.
b. Make sure that the parting is amicable and mutual, which leaves the window open for future opportunities for collaboration.

Example: Community level

A PHN planning events for an older adult wellness program in a primarily suburban county public health department noted that several regular attendees missed events. Further investigation revealed absences often related to a fall. The PHN collaborated with other professionals and community representatives who work with seniors to disseminate information about fall risk prevention.

1. Determine the need

A PHN working in an older adult wellness program knows regular attendees miss events due to falls.

2. Assess potential partners

The PHN realizes that there are local experts who have greater knowledge about fall risk prevention and about the community environments of the senior population. They include a county social worker who works with the senior population, a representative from the local senior center, the health educator from the health department, and a local clinic's geriatric nurse practitioner and physical therapist. All affirm their interest in collaborating on a fall risk reduction initiative.

3. Develop the partnership

At the first meeting, collaborative partners share their expertise in falls risk reduction, their time commitment, and possible resources available through their organizations.

4. Formalize the partnership

At the second meeting, the group reaches consensus on the partnership's goals and develops an action plan with a timeline. One of the group's first actions is to review evidence on best strategies for fall risk reduction.

5. Maintain and sustain the partnership

After discussing best evidence for fall risk reduction, the partnership revises its action plan and proceeds to implement strategies. The social worker volunteers to convene meetings and be responsible for ongoing communication. The group develops an evaluation strategy it plans to use at one year and two years after implementing strategies, to determine strategy effectiveness.

6. End the partnership (or not)

Once organizations serving seniors in the community adopt strategies, members of the group determine they have met their goal. Several members of the collaborative group present their success story at a state conference. They decide to meet again, to consider other activities needed to optimize quality of life for older adults.

Basic steps: Individual/family level

A concept analysis of partnership within the nurse-client relationship identified the following factors foundational to collaborating with clients (Gallant, Beaulieu, & Carnevale, 2002, p. 152):

- Partners value each individual and cooperation.
- Partners feel committed to sharing responsibility, risk, power, and accountability.
- Partners are open and respectful of what each partner brings to the relationship.

- Nurses hold positive attitudes towards clients and are willing to relinquish the status and privilege associated with being a nurse.
- Partners actively encourage the client's involvement in decision-making.

When working with clients, partnership includes the following phases (Gallant et al., 2002, p. 153):

1. Initiating phase: Both partners commit to the partnership

a. Partners actively negotiate roles, responsibilities, and actions.
b. The professional assumes a facilitator role, acts as a resource person, and provides service in a nonjudgmental way.
c. The client partner takes the role of willing and active participant in a process of self-determining strengths, problems, and solutions.

2. Working phase: Partners bring their knowledge and experience to the collaborative process

a. The nurse partner brings nursing knowledge and clinical experiences.
b. The client brings experiential knowledge about health and managing their health concern.
c. The nurse promotes client empowerment and competency by maintaining the relationship, reinforcing client progress, supporting decision-making, and assisting the client to learn new knowledge and skills.

Example: Individual/family level

Angela, a PHN who provides public health nursing services in a rural county, attended a conference on fall risk reduction. She visits the local senior center one afternoon each week to check blood pressure and offer **health teaching**, **counseling**, and **consultation**. Angela also collaborates with seniors on a fall risk reduction plan. She meets with Marion, 78 years old, who has had a recent fall and sustained a few bruises.

1. Initiating phase: Both partners commit to the partnership

Angela asks Marion if she has time to meet to discuss fall prevention. Angela shares she has recently attended a conference on preventing falls. Marion affirms she has time and wants to learn about fall prevention. She is concerned about falling again and wants to know strategies to prevent a fall from happening.

2. Working phase: Partners bring their knowledge and experience to the collaborative process

Marion describes the rooms in her apartment and her daily activities. Angela provides information about how Marion can arrange her home environment to reduce the risk for falls. Angela assesses Marion's risk for falls, using a fall risk assessment tool she learned about at the conference. Angela then asks Marion about steps Marion thinks would be helpful for decreasing her fall risk. She also asks what resources Marion may need to make changes in her environment. Together, they make a plan to implement needed changes.

Key points from evidence

For a description of evidence levels, visit: **Introduction**: Overview of evidence-based practice and related topics.

1. Knowledge and skills needed for effective collaboration

The following 10 lessons are applicable to identifying knowledge and skills needed for collaborating effectively:

- Know thyself.
- Learn to value and manage diversity.
- Develop constructive conflict resolution skills.
- Use your power to create win-win situations.
- Master interpersonal and process skills.
- Recognize that collaboration is a journey.
- Take the opportunity to participate in multidisciplinary forums or meetings to increase collaboration opportunities.
- Appreciate that collaboration can occur spontaneously.
- Balance autonomy and unity in collaborative relationships.
- Remember that collaboration is not required for all decisions.

Level 5 source:

- Gardner, 2005

2. Creating and sustaining mutual partnerships

Principles for creating and sustaining mutual partnerships include:

- Share common vision, mission, goals, and values.
- Be committed to the community.
- Show mutual trust and respect for all partners.
- Recognize the strengths and contributions of all partners.
- Be open and honest in sharing information and needs.
- Share leadership, decision-making power, resources, and credit among members.
- Use data in assessment, planning, implementation, and evaluation.
- Ensure that each member of the partnership is treated equally.

- Foster a safe environment for clear and open communication that values feedback from all partners.

Level 4 sources:

- Giachello, 2007
- National Business Coalition on Health, 2008

3. Reducing barriers to effective partnerships

Strategies to reduce barriers to effectively developing community partnerships:

- Take time to learn about the people, politics, and dynamics of the community before you approach members.
- Allow enough time to build and nurture relationships with your partners.
- Understand group process—that is, how groups develop, mature, and work together on common problems, and then end or separate once work is complete.
- Develop rules to guide the group's work.
- Support leadership development and capacity-building among group members.
- Understand how to run meetings, engage in group negotiations, and foster decision-making.
- Create a flexible timeline for the program.

Level 4 source:

- Giachello, 2007

4. Trust and leadership

Trust and leadership are the most important predictors of synergy in a partnership. Synergy is the combination of all partners' complementary strengths, perspectives, values, and resources, as partners search for solutions.

Level 3 source:

- Jones & Barry, 2011

5. Norms for group development

Tuckman's stages of group development are useful for predicting how collaborative groups and partnerships develop relationships and patterns of interaction as they work toward a common goal. The stages are:

1. **Forming**: Group members determine boundaries and group leadership emerges.
2. **Storming**: Group members encounter conflict within the group and resist group influence.
3. **Norming**: Group members develop cohesiveness, trust in one another, and adopt new roles.
4. **Performing**: Group members work together with flexible and functional rules to accomplish group tasks.

Level 5 sources:

- Keller, Schaffer, Schoon, Brueshoff, & Jost, 2011

- Schoon, Porta, & Schaffer, 2019
- Tuckman, 1965

6. Strategies for working together for a common purpose

Himmelman, a consultant in community and systems change collaboration, described four strategies used by organizations working together for a common purpose:

- **Networking**: Exchanging information for mutual benefit
- **Coordinating**: Exchanging information for mutual benefit and altering activities for a common purpose
- **Cooperating**: Exchanging information, altering activities, and sharing resources for mutual benefit and a common purpose
- **Collaborating**: Exchanging information, altering activities, and sharing resources and a willingness to enhance the capacity of partners for mutual benefit and a common purpose

Himmelman noted that one strategy is not preferred over another; the strategy implemented depends on levels of trust among partners and partners' willingness to share time and turf. Collaboration, requiring the most trust and willingness to share, involves sharing risks, resources, and rewards, but also produces the greatest benefit for all involved.

Level 5 source:

- Himmelman, 2002

7. Interprofessional collaboration with clients

Interprofessional collaboration occurs when a partnership between professionals in different professions share decision-making with the client to improve health.

Actions contributing to effective teamwork in interprofessional collaboration include:

- Strive to understand differences among team members' culture, language, lifestyles, and beliefs.
- Listen and be fully attentive.
- Express appreciation.
- Be empathetic.
- Be courteous and considerate.
- Be accountable and professional.
- Follow the organizational professional code of conduct.
- Pay attention to interpersonal and relationship skills to enhance developing trust and respect for partners.

Level 3 source:

- Clancy, Gressnes, & Svensson, 2013

Level 5 sources:

- Brewer, 2012
- Bridges, Davisdon, Odegard, Maki, & Tomkowiak, 2011
- Heatley & Kruske, 2011

8. Improved outcomes with interprofessional service delivery

Interprofessional public health service delivery contributes to improved outcomes. Examples include improving mental health symptoms and function for clients in a community mental health setting and increased fall reduction activities by professionals after implementing of guidelines to reduce falls for older adults.

Level 2 sources:

- Eckstrom et al., 2016
- Tippin, Maranzan, & Mountain, 2016

9. Community engagement guidelines

Community engagement guidelines include:

- Be clear about goals and who to engage.
- Become knowledgeable about the community.
- Establish relationships, build trust, and seek commitment from the community.
- Develop local partnerships that collaboratively plan, design, develop, deliver, and evaluate health initiatives.
- Recognize and respect the diversity of the community.
- Identify and mobilize community assets and strengths by developing the community's capacity and resources to make decisions and take action.
- Be prepared to release control of actions or interventions to the community, and be flexible enough to meet the community's changing needs.

Level 4 sources:

- Bagnall, White, & South, 2017
- National Institutes of Health, 2011
- U.S. Department of Health and Human Services, 2011

10. Improving behaviors and outcomes with integrated strategies

Public health interventions that integrate community engagement strategies demonstrate positive influences on health behaviors and outcomes in disadvantaged populations.

Level 1 sources:

- O'Mara-Eves et al., 2015
- Wells et al., 2013

Wheel notes

Collective impact

The collective impact model strengthens collaboration effectiveness, and involves cross-sector collaboration (bringing people and organizations together) to achieve social change. Initiatives that incorporate collective impact require the following components: 1) a common agenda, 2) ongoing communication, 3) mutual activities, 4) a backbone support organization, and 5) a shared measurement system (Collective Impact Forum, 2014). Public health initiatives that have used a collective impact approach include a coordinated community response to teen pregnancy, a breastfeeding promotion program, and a healthy city initiative to address specific community health challenges (Baretta, 2018; Leruth, Goodman, Bragg, & Gray, 2017; Sagrestano, Clay, & Finerman, 2018). While collective impact methods contribute to improving health outcomes, cross-sector collaboration strategies are also likely to be time intensive, to require committed leaders, and to involve overcoming challenges of sharing data between organizations.

Overlap in collaboration, interprofessional collaboration, and community engagement

Some overlap exists in the principles and actions required for collaboration, and for two related processes—interprofessional collaboration and community engagement. Interprofessional collaboration involves collaborating with other professionals, while community engagement focuses on collaborating with communities. Public health nurses frequently collaborate with individuals and families in providing public health nursing services. They also cultivate effective collaborative practices when working with other professionals and community members on public health initiatives.

Partnering with others

The orange wedge focuses on reaching mutual goals through partnerships. Successful partnering requires using a skill set honed through group meetings and a self-assessment process. Working effectively on a team is a learned skill, and not an innate human trait.

Collaboration enhances capabilities

Collaboration enhances the capabilities of all people in the partnership. Partners are considered equal and all opinions are valued in decision-making.

References

Bagnall, A., White, J., & South, J. (2017). Community engagement: What the NICE guidance means for community practitioners. *Primary Health Care, 27*(6), 29-33. doi: 10.7748/phc.2017.e1192

Baretta, C. C. (2018). From collaboration to collective impact: Baton Rouge's story. *Health Progress, 99*(5), 34-37.

Bidmead, C., & Cowley, S. (2005). A concept analysis of partnership with clients. *Community Practitioner, 78*(6), 203-208.

Brewer, K. (2012). Making interprofessional teams work for nurses, patients. *American Nurse Today, 7*(3), 32-33.

Bridges, D. R., Davidson, R. A., Odegard, P. S., Maki, I. V., & Tomkowiak, J. (2011). Interprofessional collaboration: three best practice models of interprofessional education. *Medical Education Online, 16*, 1-10. doi: 10.3402/meo.v16i0.6035

Centers for Disease Control and Prevention. (2011). *Engaging, building, expanding: An NBCCEDP partnership development toolkit*. Retrieved from https://www.cdc.gov/cancer/nbccedp/toolkit.htm

Clancy, A., Gressnes, T., & Svensson, T. (2013). Public health nursing and interprofessional collaboration in Norwegian municipalities: A questionnaire study. *Scandinavian Journal of Caring Sciences, 27*(3), 659-668. doi: 10.1111/j.1471-6712.2012.01079.x

Eckstrom, E., Neal, M. B., Cotrell, V., Casey, C., McKenzie, G., Morgve, M. W., et al. (2016). An interprofessional approach to reducing the risk of falls through enhanced collaborative practice. *Journal of American Geriatrics Society, 64*(8), 1701-1707. doi: 10.1111/jgs.14178

Gallant, M. H., Beaulieu, M. C., & Carnevale, F. A. (2002). Partnership: An analysis of the concept within the nurse–client relationship. *Journal of Advanced Nursing, 40*(2), 149-157.

Gardner, D. (2005). Ten lessons in collaboration. *The Online Journal of Issues in Nursing, 10*(1), Manuscript 1. doi: 10.3912/OJIN.Vol10No01Man01

Giachello, A. (2007). *Making community partnerships work: A toolkit*. (D. Ashton, P. Kyler, E. S. Rodriguez, R. Shaner, & A. Umemoto (Eds.). White Plains, NY: March of Dimes Foundation. Retrieved from http://www.aapcho.org/wp/wp-content/uploads/2012/02/Giachello-MakingCommunityPartnershipsWorkToolkit.pdf

Heatley, M. & Kruske, S. (2011). Defining collaboration in Australian maternity care. *Women and Birth, 24*, 53-57. doi: 10.1016/j.wombi.2011.02.002

Himmelman, A. (Revised 2002). *Collaboration for a change: Definitions, decision-making models, roles and collaboration process guide*. Minneapolis, MN: Himmelman Consulting. Retrieved from: https://depts.washington.edu/ccph/pdf_files/4achange.pdf

Jones, J., & Barry, M. (2011). Exploring the relationship between synergy and partnership functioning factors in health promotion partnerships. *Health Promotion International, 26*(4), 408-420. doi: 10.1093/heapro/dar002

Keller, L. O., Schaffer, M. A., Schoon, P. M., Brueshoff, B., & Jost, R. (2011). Finding common ground in public health nursing education and practice. *Public Health Nursing, 28*(3), 261-270.

Leruth, C., Goodman, J., Bragg, B., & Gray, D. (2017). A multilevel approach to breastfeeding promotion: Using Health Start to deliver individual support and drive collective impact. *Maternal and Child Health Journal, 21*(Suppl. 1), S4-S10. doi.org/10.1007/s10995-017-2371-3

National Business Coalition on Health. (2008). *Community health partnerships tools and information for development and support*. Retrieved from https://stacks.cdc.gov/view/cdc/42398/Share

National Institutes of Health. (2011). *Principles of community engagement*. NIH Publication No. 11-7782. Retrieved from https://www.atsdr.cdc.gov/communityengagement/index.html

O'Mara-Eves, A., Brunton, G., Oliver, S., Kavanagh, J., Jamal, F., & Thomas, J. (2015). The effectiveness of community engagement in public health interventions for disadvantaged groups: A meta-analysis. *BMC Public Health, 15*, 1-23. doi: 10.1186/s12889-015-1352-y

Sagrestano, L. M., Clay, J., & Finerman, R. (2018). Collective impact model implementation: Promise and reality. *Journal of Health and Human Services Administration, 41*(1), 87-123.

Schoon, P., Porta, C., & Schaffer, M. A. (2019). *Population-based public health clinical manual: The Henry Street Model for nurses (3rd Ed.)*. Indianapolis, IN: Sigma Theta Tau International.

Tippin, G. K., Maranzan, K. A., & Mountain, M. A. (2016). Client outcomes associated with interprofessional care in a community mental health outpatient program. *Canadian Journal of Community Mental, 35*(3), 83-96. doi: 10.7870/cjcmh-2016-042

Tuckman, B. W. (1965). Development sequences in small groups. *Psychology Bulletin, 63*(6), 384-399.

U.S. Department of Health and Human Services. (2011). *Principles of community engagement (2nd Ed.)*. NIH Publication No. 11-7782. Retrieved from http://www.ucdmc.ucdavis.edu/crhd/images/pdf/PCE2_En.pdf

Wells, K. B., Jones, L., Chung, B., Dixon, E. L., Tang, L., Gilmore, J., et al. (2013). Community-partnered cluster-randomized comparative effectiveness trial of community engagement and planning or resources for services to address depression disparities. *Journal of General Internal Medicine, 28*(10), 1268–78. doi: 10.1007/s11606-013-2484-3
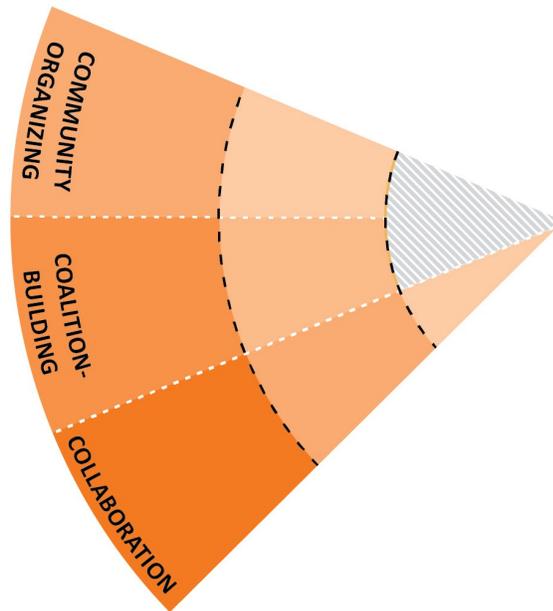
Coalition-building

Coalition-building helps promote and develop alliances among organizations or constituencies for a common purpose. It builds links, solves problems, and/or enhances local leadership to address health concerns.

Reasons for forming a coalition include a desire to work with agencies with greater expertise or complementary knowledge and skills, empowering groups or a community to take action, obtaining or providing services, improving program delivery, sharing resources, and reducing duplicative or competing services (Butterfoss & Kegler, 2012; Center for Community Health and Development at the University of Kansas, 2017; Giachello, 2007).

Practice-level examples

Population of interest: Apartment-dwelling refugees.

Problem: Limited options for inexpensive fresh produce in community.

Systems level

In the Shenandoah Valley region of Virginia, a community assessment included perspectives from the refugee community, and identified the need and desire for a community garden with culturally familiar produce. Following implementation of a community garden, evaluating outcomes demonstrated improved nutrition in the refugee population from growing and eating vegetables consistent with their cultural preferences. A coalition, formed in response to the assessment, became aware of a faith-based organization that provided resettlement for refugees. One of their goals was to work with churches to provide garden plots and gardening resources to help refugee families engage with the community; take part in physical activity; and grow fresh, nutritious food. The coalition worked with the organization to obtain a grant, funding a coordinator to continue the community garden project started by the coalition.

Community level

Following the community assessment, public health nurses (PHNs) connected the refugee community with agencies and advocates who had similar missions and complementary skill sets, to form a community garden coalition. Coalition members included a refugee resettlement agency, an urban housing community development organization, an immigrant advocacy and resource agency, the local master garden association, an organic seed company, and an apartment complex owner (Eggert, Blood-Siegried, Champagne, Al-Jumaily, & Biederman, 2015).

Individual/family level

This intervention does not apply at this level.

Relationship with other interventions

Along with **community organizing** and **collaboration**, coalition-building involves partnerships. Because of this, they share many features, especially at the community level of practice. All three interventions empower individuals and communities to take control of their lives and environment, emphasizing client perceptions and experience. At the community level, community engagement (the process of working collaboratively with populations who are grouped by geographic location, special interests, or similar health concerns to respond to issues that affect group or population well-being; U.S. Department of Health and Human Services, 2011) is relevant to all three interventions.

Outside organizations or influences may facilitate coalition-building rather than the community itself—a difference from community organizing. Unlike collaboration, coalition-building does not require enhancing the capacity of other organizations or constituencies within the coalition.

Coalition-building is also used in conjunction with **policy development and enforcement** to change the way systems in a community operate or to change community-held norms or beliefs. Coalition-building is similar to **advocacy** at the systems or community level; coalitions often exist to implement advocacy at the systems or community level around a single issue. Coalitions may also use **outreach** interventions at the systems and community level to connect with their target populations, often paired with **social marketing**.

Basic steps

The Center for Community Health and Development at the University of Kansas (2017) Community Toolbox provides online resources for building healthier communities, including coalition-building. These are steps for starting and maintaining a community coalition:

1. Put together a core group

A core group will have more resources and knowledge of a community as opposed to an individual effort.

a.   Start with people you know.
b.   Contact people in agencies and institutions most affected by the issue.
c.   Talk to influential people in the community and those who have many contacts.
d.   Recruit people most affected by the concern or problem.

2. Identify potential coalition members

There may be a specific person in the target population or a community official who you need to include to accomplish the coalition's goal(s).

a.   Potential coalition members include stakeholders (those affected by the issue), formal and informal helpers, community opinion leaders, and policymakers.
b.   Reach out to people with knowledge or skills helpful to the coalition.
c.   Consider important organizations in recruiting an organizational representative to the coalition.

3. Recruit members to the coalition

After identifying potential members important to the coalition's success, invite them to join the coalition.

a.   Ask individuals in the core group to review the list and identify individuals or organizations they know.
b.   Divide remaining potential members among members of the core group.
c.   Contact potential members via face-to-face meetings, phone calls, email communication, personal letters, ads in the media, and flyers or posters. Direct personal contact is best.

4. Plan and hold the first meeting

Plan a high-energy, exciting first meeting.

a.   Plan specific meeting logistics—where, how long, and what (content).
b.   Agenda topics include:
  - Introductions
  - Defining the problem that brings the coalition together
  - Coalition structure
  - Discussing a common vision and shared values about the coalition's direction
  - Discussing the procedure for developing an action plan
  - Reviewing tasks and responsibilities before next meeting
  - Identifying the next meeting date

5. Follow up on the first meeting

Follow-up ensures the next meeting is well-attended and the coalition's work continues.

a.   Distribute minutes of the first meeting with invitations to potential new members.
b.   Follow up with groups or individuals working on tasks assigned at the first meeting.
c.   If there are committees or task forces, recruit new members for them if needed. Many people will respond if asked because their expertise is valued.
d.   Keep track of upcoming decisions.

6. Move forward on next steps

Focusing on next steps maintains momentum from the first meeting.

a.   Gather information about the problem.
b.   Finish vision and mission statements.
c.   Complete an action plan.
d.   Finish designing a coalition structure that is acceptable to members.
e.   Elect officers, or a coordinating or steering committee.
f.   Examine the need for professional staff.
g.   Determine what other resources (financial, material, and informational) are needed, develop a plan for getting them, and decide who is responsible for carrying it out.

7. Maintain until coalition accomplishes its purpose

Paying attention to the coalition processes and membership experience keeps the coalition vital and healthy. General rules for coalition facilitation include:

a.   Communicate openly and freely with everyone.
b.   Be inclusive and participatory.
c.   Network at every opportunity.
d.   Set achievable goals, in order to engender success.

e.   Hold creative meetings.
f.   Be realistic about what you can do. Don't promise more than you can accomplish, and always keep your promises.
g.   Acknowledge and use the diversity of the group.

Example

A PHN from a county health department met with a coalition to implement a community garden project for apartment-dwelling refugees (Eggert et al., 2015).

1. Put together a core group

From a health department community assessment about the health needs of refugees living in the community, a PHN learns refugees have difficulty getting the fresh vegetables they like to eat. The PHN contacts representatives from a refugee resettlement agency, an immigrant advocacy group, and the manager of a local apartment complex to discuss the potential for establishing a community garden for use by the immigrant population.

2. Identify potential coalition members

The first representatives of organizations contacted by the PHN suggested several other organizations that can contribute expertise and resources to the coalition.

3. Recruit members to the coalition

The PHN puts together a list of possible members and asks the people she initially contacted in the core group to personally invite additional members. Possible additional members includes representatives from an urban housing community development organization, a local garden association, an organic seed company, and a member of the refugee community.

4. Plan and hold the first meeting

The PHN reserves space at a local community center for the first meeting, and prepares an agenda. The group starts with introductions. They discuss the problem at the heart of the coalition and what they hope to accomplish. The refugee resettlement agency representative volunteers to lead the coalition. The group creates a list of possible objectives, and steps to create an action plan. The refugee community representative volunteers to learn which vegetables the apartment-dwelling refugees prefer. The garden association representative plans to investigate how the local soil and climate conditions would support growing the vegetables. The group sets a date for its next meeting. Group members agree to rotate responsibility for taking meeting minutes. The PHN agrees to provide minutes for the first meeting.

5. Follow up on the first meeting

The PHN distributes minutes via email one week after the first meeting. The minutes identify tasks to accomplish by the next meeting, and who is responsible for each task. The minutes also include a list of upcoming decisions, and agenda items identified for the next meeting. The refugee resettlement agency representative plans to finalize the agenda prior to the next meeting.

6. Move forward on next steps

Coalition members continue to gather information about best practices for establishing a community garden. In the next two meetings they finalize the coalition's vision and mission statements, and complete the action plan. They discuss the need to obtain a grant to fund a coordinator who can oversee community garden implementation.

7. Maintain until coalition accomplishes its purpose

After meeting monthly for six months, the coalition learns of a faith-based organization that supports resettlement programs for refugees. The coalition invites a representative from the organization to attend one of its meetings, to provide information about the organization's resources. The coalition starts to arrange for a presentation related to community gardens at each of its meetings. In the future, when members mutually agree that the coalition has met its objectives and when the community has taken over leadership, members will discuss an ending point for the coalition.

Key points from evidence

For a description of evidence levels, visit: **Introduction**: Overview of evidence-based practice and related topics.

1. Guidelines for starting coalitions

Guidelines for starting coalitions include:

- Be sure lines of communication within the coalition are wide open, between the coalition, the media, and the community.
- Work at making the coalition a group in which anyone in the community will feel welcome, and continue to invite people to join after the first meeting.
- Involve as many other groups in the community as possible.
- Set concrete, achievable goals.
- Be creative about meetings to retain both membership and interest in the coalition. Consider rotating meeting planning among coalition groups, identifying a meeting theme, working in committees or task forces, or arranging a captivating presentation on a topic relevant to coalition planning.

- Be realistic, and keep your promises.
- Acknowledge diversity among your members, and among their ideas and beliefs.
- Praise and reward outstanding contributions and celebrate your successes.
- Invest the time needed for coalition-building.
- Be flexible and open to change.
- Call in experts when needed, for information and process.

Level 4 source:

- Center for Community Health and Development at the University of Kansas, 2017

Level 5 source:

- Wynn et al., 2006

2. Understanding coalition environments and context

Contextual factors that provide an understanding of how the coalition's environment influences its development, functioning, and outcomes include:

- **Geography**: Urban or rural, large county or dense metropolitan area
- **History of collaboration**: Prior experience of working together
- **Economics**: Local economy, employment opportunities, business practices
- **Political climate**: Factions and groups in the community and how they interact
- **Community norms and values**: Social norms, beliefs, and values of community members

Level 3 source:

- Kegler, Rigler, & Honeycutt, 2010

Level 5 source:

- Butterfoss & Kegler, 2012

3. Coalition-building stages

Coalition-building includes three stages:

a. **Formation**: A convener or lead agency that has links to the community brings together core organizations.
b. **Maintenance**: The coalition sustains member involvement and creates collaborative synergy. Success depends on mobilizing member resources and external resources.
c. **Institutionalization**: The coalition achieves outcomes. Coalition strategies may become part of a long-term coalition, or be adopted by other organizations in the community.

Level 5 source:

- Butterfoss & Kegler, 2012

4. Factors for success

Internal and external factors that contribute to coalition success include:

- Commitment to a shared social vision
- Competent leadership that facilitates a learning environment and supports achieving outcomes
- An effective coalition coordinator who oversees coalition activities
- Shared responsibility of financial and staffing resources
- Effective practices
- Commitment to coalition unity and a new way of doing business
- An equitable decision-making structure
- Mutual trust and respect
- A prepared public health workforce
- Establishing links with existing community organizations
- Building new member skills
- Rewarding relationships

Level 1 source:

- Shapiro, Hawkins, & Oesterle, 2015

Level 3 source:

- Mizrahi & Rosenthal, 2001

Level 5 sources:

- Cramer, Atwood, & Stoner, 2006
- Cramer, Lazure, Morris, Valerio, & Morris, 2013
- Salem, 2005

5. Factors for coalition organizational capacity

Factors that contribute to coalition organizational capacity include resources, the lead agency of the coalition, governance, and leadership. Characteristics of coalitions with greater organizational capacity:

- A focus on the community's priorities and mission
- Receiving more funds dedicated to coalition-building efforts
- A longer wait to establish a new lead agency
- Being housed in lead agencies supportive of coalition development
- Stable, participatory decision-making structures
- Available training and technical assistance
- Seeking active involvement from government agencies
- Practicing collaborative leadership
- Effective and long-term project directors

Level 1 source:

- Gloppen, Arthur, Hawkins, & Shapiro, 2012

Level 3 sources:

- Brown, Feinberg, & Greenberg, 2010
- Brown, Wells, Jones, & Chilenski, 2017

- Feinberg, Bontempo, & Greenberg, 2008
- Kramer et al., 2005
- Zakocs & Guckenburg, 2007

6. Challenges to success

Challenges to coalition success include:

- Limited resources (funding and personnel)
- Lack of strong commitment
- Suspicion of government
- Meeting burnout
- A wide variety of perspectives within the coalition
- A slow pace and frustrating process
- Limited time for coalition members to participate
- Few resources or strategies for engaging members' interest in coalition activities

Level 3 source:

- Desmond, Chapman, Graf, Stanfield, & Waterbor, 2014

Level 5 source:

- Salem, 2005

7. Satisfaction and sustainability

Key factors of coalition membership satisfaction that are consistent with coalition sustainability include:

- The lead agency provides support and assistance with logistical activities (scheduling meetings and space, providing new member orientation).
- The lead agency assists in providing resources for accomplishing the coalition mission.
- There is a spokesperson or champion in the leadership role who is recognized by the organizations and the community.

Level 3 source:

- Desmond et al., 2014

8. Connecting providers and diverse communities

Community coalitions that connect health and human service providers with racially and ethnically diverse communities may improve health outcomes, behaviors, and health delivery systems.

Level 2 source:

- Anderson et al., 2015

Wheel notes

Public health nurse as coalition catalyst

A coalition may invite PHNs possessing knowledge and skills consistent with its mission to contribute expertise to coalition activities. Public health nurses also have expertise to discern the need for a coalition based on community assessment information, and know community resources and organizations.

For example, a PHN might identify the need for a coalition focusing on providing dental services in a community where many children lack dental care. The PHN calls a meeting, inviting a core group of representatives from among providers, community organizations, and the school system, who all recognize the importance of providing dental care. In this situation, the PHN functions as a catalyst for coalition development, and collaborates with health care and community, organizations, businesses, and policymakers to work together.

International perspective

Coalition-building and **community organizing** may not be as necessary in developed countries that provide universal health care and offer many social resources to promote population well-being. Countries with greater health care and social resources are less likely to need communities to provide programs to fill the gaps. For example, in Norway, PHNs enrolled in a graduate-level public health nursing program offered few examples of coalition-building and community organizing relative to other interventions.

Public health nurse practice roles are also more individually-focused, with less opportunity for community- and systems-level practice. Coalition-building may compete with other demands for a PHN's time, or may not be supported by public health nursing administration and agencies. A systematic review of 23 international studies (including five studies from the United States) on public health nursing interventions to promote quality of life in elderly populations yielded no examples of coalition-building (Schaffer, Kalfoss, & Glavin, 2017). This analysis revealed that most PHN interventions were provided at an individual level. In this analysis, interventions occurring at the community and systems levels included **health teaching**, **counseling**, **consultation**, **case management**, **referral and follow-up**, **screening**, **surveillance**, **policy development and enforcement**, and most frequently **collaboration**.

References

Anderson, L. M., Adeney, K. L., Shinn, C., Safranek, S., Buckner-Brown, J., & Krause, L. K. (2015). Community coalition-driven interventions to reduce health disparities among racial and ethnic minority populations. *Cochrane Database of Systematic Reviews, Issue 6*. Art. No.: CD009905.doi: 10.1002/14651858.CD009905.pub2.

Brown, L. D., Feinberg, M. E., & Greenberg, M. T. (2010). Determinants of community coalition ability to support evidence-based programs. *Prevention Science, 11*, 287-297. doi: 10.1007/s11121-010-0173-6

Brown, L. D., Wells, R., Jones, E. C., & Chilenski, S. M. (2017). Effects of sectoral diversity on community coalition processes and outcomes. *Prevention Science, 18*, 600-609. doi: 10.1007/s11121-017-0796-y

Butterfoss, F. & Kegler, M. C. (2012). A coalition model for community action. In M. Minkler, *Community organizing and community building for health and welfare* (pp. 309-328). New Brunswick, NJ: Rutgers University Press.

Center for Community Health and Development at the University of Kansas. (2017). Community Toolbox. Section 5. *Coalition Building I: Starting a Coalition*. http://ctb.ku.edu/en/table-of-contents/assessment/promotion-strategies/start-a-coaltion/main

Cramer, M. E., Atwood, J. R., & Stoner, J. A. (2006). A conceptual model for understanding effective coalitions involved in health promotion programing. *Public Health Nursing, 23*(1), 67-73.

Cramer, M. E., Lazure, L., Morris, K. J., Valerio, M., & Morris, R. (2013). Conceptual models to guide best practices in organization and development of State Action Coalitions. *Nursing Outlook, 61*, 70-71. doi.org/10.1016/j.outlook.2012.06.022

Desmond, R. A., Chapman, K., Graf, G., Stanfield, B., & Waterbor, J. W. (2014). Sustainability in a state Comprehensive Cancer Control Coalition: Lessons learned. *Journal of Cancer Education, 29*, 188-193. doi: 10.1007/s13187-013-0568-8

Eggert, L., L, Blood-Siegried, J., Champagne, M., Al-Jumaily, M., & Biederman, D. J. (2015). Coalition building for health: A community garden pilot project with apartment dwelling refugees. *Journal of Community Health Nursing, 32*, 141-150. doi: 10.1080/07370016.2015.1057072

Feinberg, M. E., Bontempo, D. E., & Greenberg, M. T. (2008). Predictors and level of sustainability of community prevention coalitions. *American Journal of Preventive Medicine, 34*(6), 495-501. doi: 10.1016/j.amepre.2008.01.030

Giachello, A. (2007). *Making community partnerships work: A toolkit*. (D. Ashton, P. Kyler, E. S. Rodriguez, R. Shaner, & A. Umemoto (Eds). White Plains, NY: March of Dimes Foundation. Retrieved from http://www.aapcho.org/wp/wp-content/uploads/2012/02/Giachello-MakingCommunityPartnershipsWorkToolkit.pdf

Gloppen, K. M., Arthur, M. W., Hawkins, J. D., & Shapiro, V. B. (2012). Sustainability of the Communities That Care Prevention System by coalitions participating in the Community Youth Development Study. *Journal of Adolescent Health 51*, 259-264. doi: 10.1016/j.jadohealth.2011.12.018

Kegler, M. C., Rigler, J., & Honeycutt, S. (2010). How does community context influence coalitions in the formation stage? A multiple case study based on the Community Coalition Action Theory. *BMC Public Health, 10*, 1-11. http://www.biomedcentral.com/1471-2458/10/90

Kramer, J. S., Philliber, S., Brindis, C. D., Kamine, S. L., Chadwick, A. E., Revels, M. L., et al. (2005). Coalition models: Lessons learned from the CDC's Community Coalition Partnership Programs for the Prevention of Teen Pregnancy. *Journal of Adolescent Health, 37*, S20-S30.

Mizrahi, T. & Rosenthal, B. B. (2001). Complexities of coalition building: Leaders' successes, strategies, struggles, and solutions. *Social Work, 46*(1), 63-78.

Salem, E. (2005). MAPP in Chicago: A model for public health systems development and community building. *Journal of Public Health Management and Practice, 11*(5), 393-400.

Schaffer, M. A., Kalfoss, M., Glavin, K. (2017). Public health nursing interventions to promote quality of life in older adult populations: A systematic review. *Journal of Nursing Education and Practice, 7*(11), 92-106. doi: 10.5430/jnep.v7n11p92

Shapiro, V. B., Hawkins, J. D., & Oesterle, S. (2015). Building local infrastructure for community adoption of science-based prevention: The role of coalition functioning. *Prevention Science, 16*, 1136-1146. doi: 10.1007/s11121-015-0562-y

U.S. Department of Health and Human Services. (2011). *Principles of community engagement (2nd Ed.)*. NIH Publication No. 11-7782. Retrieved from http://www.ucdmc.ucdavis.edu/crhd/images/pdf/PCE2_En.pdf

Wynn, T. A., Johnson, R. E., Fouad, M., Holt, C. L., Scarinci, I., Nagy, C., et al. (2006). Addressing disparities through coalition building: Alabama REACH 2010 lessons learned. Journal of Health Care for the Poor and Underserved, 17(2 Supplement), 55-77. doi: 10.1353/hpu.2006.008

Zakocs, R. C. & Guckenburg, S. (2007). What coalition factors foster community capacity? Lessons learned from the fighting back initiative. *Health Education & Behavior, 34*(2), 354-375. doi: 10.1177/1090198106288492
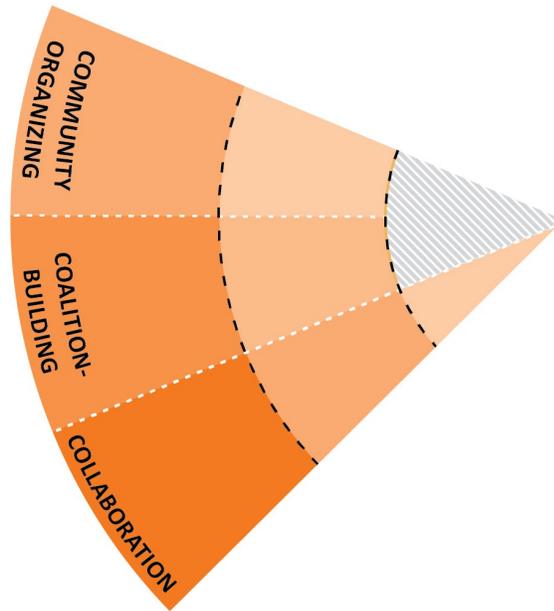
Community organizing

Community organizing is "the process by which people come together to identify common problems or goals, mobilize resources, and develop and implement strategies for reaching the objectives they want to accomplish" (Center for Community Health and Development at the University of Kansas, 2017).

The term "community organizing" originated with social workers in the United States during the late 1800s, to describe the coordination of services for immigrants and the poor. Collaboration and consensus were important components of assisting communities to increase their problem-solving abilities through community organizing (Minkler & Wallerstein, 2012).

Practice-level examples

Population of interest: Residents between 15 and 24 years old in Minneapolis, the largest city in Minnesota.

Problem: The leading cause of death for this age group is homicide.

Systems level

A public health nurse (PHN) in a leadership role at the city health department met with community leaders, elected officials, and the police department to develop a public health response to increased community violence among youth. City organizations developed *The Blueprint for Action to Prevent Youth Violence*, which identified four objectives: 1) connect youth to trusted adults, 2) intervene at the first sign of risk, 3) integrate youth from the juvenile system back into the community, and 4) unlearn the culture of violence (Zanjani, 2011).

The State of Minnesota responded by passing legislation addressing youth violence. The City of Minneapolis partnered with an organization called UNITY to respond to the problem of youth violence. UNITY organizes conferences, develops tools and information, and conducts networking activities across the United States (Urban Networks to Increase Thriving Youth, 2011). *2015 Youth Violence Prevention* (City of Minneapolis Health Department, 2016) listed city initiatives resulting from the Blueprint for Action: 1) the Juvenile Supervision Center (JSC) works with low level offenders to prevent further involvement in the juvenile justice system; 2) the STEP-UP internship program offered in the summer served 90 percent youth of color; and 3) Next Step, a violence prevention program, has been funded by a Centers for Disease Control and Prevention (CDC) grant that targets young male athletes and street-based outreach to young people in North Minneapolis.

Community level

In response to the problem of violence among city youth, community leaders supported a public health approach, which addressed factors beyond a law enforcement approach. The public health approach employed strategies to decrease factors that put people at risk for violence, like dysfunctional families, lack of access to mentors, drug and alcohol use, poverty, a media environment saturated with violence, hopelessness about the future. It also worked to increase protective factors like school success, youth employment, and quality out-of-school time programming. As a result of these efforts, the Minneapolis City Council adopted a resolution naming youth violence as a public health issue and created a plan, *The Blueprint for Action: Preventing Youth Violence in Minneapolis* (City of Minneapolis Health Department, 2013). The PHN leader acted as a convener in bringing over 60 groups together and engaging members of the community in mobilizing a community response (Musicant, 2011).

Individual/family level

The intervention does not apply at this level.

Relationship with other interventions

Community organizing, **coalition-building**, and **collaboration** all involve partnerships. Because of this, they share many features, especially at the community level of practice. All three interventions empower individuals and communities to take control of their lives and environment, emphasizing client perceptions and experience. At the community level, community engagement (the process of working collaboratively with populations who are grouped by geographic location, special interests, or similar health concerns to respond to issues that affect group or population well-being [U.S. Department of Health and Human Services, 2011]) is relevant to all three interventions.

The community identifies the impetus for community organizing, rather than an outside organization or change agent as in coalition-building. Unlike collaboration, community organizing does not aim to provide opportunities for organizational or personal transformation, and does not occur at the individual/family level of practice. Community organizing occurs primarily at the community level of practice. However, community organizing may result in coalition-building, as people and organizations come together to address community problems.

The initial steps for community organizing are similar to successful methods for implementing the **outreach** intervention at the systems and community practice levels—for example, identifying and specifying the issue of concern, describing the target population, and considering demographic implications. Community organizing often uses **advocacy** and **social marketing** as companion interventions when an organization intends to raise awareness or change a population's health behavior. Community organizing is also implemented in conjunction with the **policy development and enforcement** intervention, especially when one intends to change policy at the systems level.

Basic steps

The Center for Community Health and Development at the University of Kansas (2017) Community Toolbox, provides online resources for building healthier communities. The Community Toolbox identifies the following strategies for bringing about change through community organizing:

1. Involve people in your community efforts

Emphasize building excitement for change among community members, not an outside expert telling the community what needs to be done.

2. Identify community members' #1 issue

Learning what is important to the community helps identify the goal for change.

Consider these three questions when choosing a problem to tackle:

a. Is it important enough to people that they are willing to take action about it?
b. Is it specific? For example, violence may be a problem—but what kind of violence are people concerned about? Domestic violence? Violence in schools? Muggings after dark?
c. Can something be done to affect the problem in a reasonable amount of time?

3. Develop your strategy

Identifying a strategy will guide the plan for community change.

The group should meet and agree on answers to the following questions.

a. What are your long and short-term goals?
b. What are your organizational strengths and weaknesses?
c. Who cares about this problem?
d. Who are your allies?
e. Who has the power to give you what you want?
f. How can you make your work enjoyable for community members to participate?

4. Develop specific tactics for selected strategy

Select tactics to fit the situation, target the appropriate group, and be effective (not too extreme or too weak). Examples include boycotts, petitions, demonstrations, and meetings with people with power.

5. Choose specific actions

Choose actions to carry out your strategies and tactics. Actions need to be concrete and clear to move community organizing forward. Specify who will do what, in what way, and by when.

6. Set goals and celebrate wins

Group members need to feel they are making progress and that their work is important.

7. Plan for sustainability if indicated

Community organizing work can take a long time to result in change. At regular intervals, evaluate and update the goals to maintain sustainability. The group may disband if goals are not revised and updated.

Example

A PHN leader in a large city noted a spike in youth homicides and injuries (Musicant, 2011). Although law enforcement responds to community violence, the nurse leader realized that law enforcement alone insufficiently addressed community violence. The nurse leader convened a group of community representatives who wanted to reduce the incidence of youth violence in the city.

1. Involve people in your community efforts

A PHN leader at a city health department convenes a group of community leaders, elected officials, and the police department to address concerns about increasing violence among youth in the city.

2. Identify community members' #1 issue

Group members discuss factors that contribute to the increasing rate of violence among youth. Stakeholders in the community ask, "What are you doing to address violence?"

3. Develop strategy

Local leaders in government, education, law enforcement, social services, neighborhoods, and business come together to address the problem. They developed the cooperative plan called *Minneapolis Blueprint for Action to Prevent Youth Violence*, which "represents a community-driven, grassroots response to the issue of youth violence" (City of Minneapolis Health Department, 2013, p. 17).

4. Develop specific tactics for selected strategy

The Blueprint for Action results in many youth violence prevention initiatives, including North4, a collaboration between the City and Emerge Community Development to engage and employ gang-affiliated youth; Picturing Peace, a partnership between Hennepin County Libraries and the Downtown Improvement District for youth to document their hopes for peace through photography; and BUILD, a youth development curriculum that promotes social and emotional learning and fosters positive decision making to prevent gang activity (City of Minneapolis Health Department, 2013).

5. Choose specific actions

Specific actions to foster violence-free social environments included:

- The Minneapolis Health Department hosts community dialogues to increase awareness of youth violence prevention initiatives.

▪ A citywide collaborative group, Ending Youth Violence Roundtable, continues to focus efforts on violence prevention.
▪ The Minneapolis Health Department Youth Development Coordinator and Youth Coordinating Board implement projects to promote youth engagement in media and art initiatives (City of Minneapolis Health Department, 2013).

6. Set goals and celebrate wins

The plan specified goals, goal achievement indicators, and performance measures. Semi-annual progress reports communicate strategies, resources, and programs that contribute to reducing youth violence.

7. Plan for sustainability if indicated

Minneapolis is one of many cities across the United States that partners with UNITY (Urban Networks to Increase Thriving Youth), an initiative of the Prevention Institute. UNITY (2011) focuses on building community safety in cities through comprehensive and multi-sector strategies that prevent violence and support community resilience.

Key points from evidence

For a description of evidence levels, visit: **Introduction**: Overview of evidence-based practice and related topics.

▮ 1. Important concepts

Important concepts in a community organizing model include:

a. **Empowerment**: Individuals and communities develop an awareness of their own problem solving skills and resources.
b. **Partnership**: Relationships are based on mutual respect, exchanging ideas, and shared power.
c. **Participation**: Community members are engaged in all phases of community organization and have decision-making authority.
d. **Cultural responsiveness**: Methods and plans incorporate cultural factors that inform what health means to community members.
e. **Community competence**: The community collaborates effectively to manage threats to well-being and move toward improved health.

Level 3 source:

▪ Bezboruah, 2013

Level 5 sources:

▪ Anderson, Guthrie, & Schirle, 2002
▪ Minkler & Wallerstein, 2012

2. Effective community organizing

Guidelines for effective community organizing include:

- Gain an understanding of the community.
- Generate and use power:
  - Political or legislative power
  - Consumer power
  - Legal regulatory power
  - Disruptive power
- Articulate issues clearly.
- Plan purposeful action.
- Involve other people (strength in numbers, accomplish more together).
- Generate and use other resources (cash, gifts in kind, other forms of donations or support).
- Communicate with your community.

Level 4 source:

- Center for Community Health and Development at the University of Kansas, 2017

3. Focusing on health equity

Focusing on health equity in community organizing activities promotes equal access to health care and resources, with the goal of reducing health disparities between population groups. To promote health equity, community organizing activities address structural causes that contribute to unequal health, e.g., poverty, racial discrimination, etc.

Community organizing activities were effective in moving toward health equity in California. Examples include:

- Legislation to provide health care through Medicaid to undocumented children
- Policies to improve the well-being of communities of color with exposure to health-impairing pollution
- Promoting educational justice by changing school discipline laws that contribute to unequal treatment for students of color

Level 5 source:

- Pastor, Terriquez, & Lin, 2018

4. Empowering communities

Community organizing strategies that empower communities to promote health through systems change include:

- Developing a community base that is supportive of public health change
- Building a leadership base by providing training in workshops, conferences, and seminars
- Building an ally base, of organizations with shared interests and values
- Reframing messages to explain that systemic inequities are precursors to public health disparities

- Mobilizing the community base for ongoing participation in public health initiatives
- Working to understand communities' cultural dynamics
- Listening to and being prepared to challenge views and perceived needs
- Fostering a culture of collaboration and action in response to these views and perceived needs while using accessible language
- Ensuring credit or recognition for project success goes to community members

Level 5 sources:

- Douglas, Grills, Villanueva, & Subica, 2016
- Piper, 2011

5. Advantages of community organizing

There are a number of advantages to community organizing, including:

- A greater ability to bring about change, since a collective voice is more powerful than a single voice
- Empowering people to improve the conditions that shape their lives (especially those who traditionally have not had power)
- Increasing self-sufficiency among community members through ownership of outcomes
- Increasing social support, by bringing together diverse groups of people working on the same goal
- Greater equity in society, because the balance of power is spread out and distributed more equally

Level 4 source:

- Center for Community Health and Development at the University of Kansas, 2017

6. Challenges to effective community organizing

Challenges that may interfere with effective community organizing include:

- Disagreement over strategies to accomplish goals
- Low or disproportionate participation of community members
- Variable knowledge of successful health care service delivery methods
- Leadership from backgrounds that are very different from the targeted population

Level 3 source:

- Bezboruah, 2013

7. Ethical problems in community organizing

Differing values in participants' political, economic, cultural, and social contexts may lead to ethical problems as a group comes together to respond to a community problem. Ethical problems that might occur when using community organizing as an intervention include:

- Authentic or real community participation vs. symbolic participation
- Conflicting community priorities

- Requirements of funding sources and regulatory organizations, which may negatively impact access and innovation
- Cultural conflict
- Unanticipated consequences of organizing
- Consideration of whose "common good" is being addressed

To avoid ethical problems in community organizing, start where the people are, work with communities to translate their goals into reality, and engage community members in discussion and reflection.

Level 5 source:

- Minkler, Pies, & Hyde, 2012

8. Examples of effective activities and campaigns

Examples of effective community organizing activities and campaigns:

- A New Zealand initiative led by Pacific Island youth contributed to improved mental health and a sense of agency over health (empowerment) for a disempowered population.
- ISAIAH, a faith-based community organizing group of 90 organizations, worked for policy and systems change to increase community access to grocery stores, employment, schools, and affordable neighborhoods. ISAIAH formed partnerships with a wide variety of organizations committed to the same goal.
- Three churches, an Islamic Center, and a faith-based charity in South London organized to develop and pilot a community-led mother's group to increase social capital, reduce stress, and improve well-being in mothers who were pregnant or had young children. Outcomes included reduced distress (self-reported) and facilitating community engagement in health.

Level 2 source:

- Bolton, Moore, Ferreira, Day, & Bolton, 2015

Level 3 source:

- Han, Nicholas, Aimer, & Gray, 2015

Level 5 source:

- Speer, Tesdahl, & Ayers, 2013

Wheel notes

Related concept: Social capital

The concept of social capital frequently occurs in the literature, in descriptions of community organizing interventions. Social capital refers to the amount of resources available in a community or other social structure. In a study on building social capital in a refugee community, Im and Rosenberg (2015) identified structural and cognitive

social capital themes: 1) gathering together as a community; 2) training leaders to build community capacity; 3) participating in solving community issues; and 4) fostering mutual respect, connectedness, and unity. These themes address strategies and resources that exist within a community and are consistent with the basic steps of community organizing.

Related concept: Community activism

Similar to community organizing, in community activism individuals, groups, or organizations work together to bring change in social, economic, environmental, and cultural policies and practices. Nurses have been involved in community activism from the time of Florence Nightingale and Lillian Wald to present-day public health nursing practice. Current examples of nurses engaging in community activism include promoting smoke-free policies, physical activity opportunities in neighborhoods, standards for clean air and water, maternity care for underserved populations, hospital breastfeeding policies, and policies on human trafficking. Community activism requires the ability to envision a different reality, engage diverse communities, commit to change, take action through organizing, and sustain partnerships and collaboration (Messias & Estrada, 2016).

References

Anderson, E., Guthrie, T., & Schirle, R. (2002). A nursing model of community organization for change. *Public Health Nursing, 19*(1), 40-46.

Bezboruah, K. C. (2013). Community organizing for health care: An analysis of the process. *Journal of Community Practice, 21*, 9-27. doi: 10.1080/10705422.2013.788328

Bolton, M., Moore, I. Ferreira, A., Day, C., & Bolton, D. (2015). Community organizing and community health: piloting an innovative approach to community engagement applied to an early intervention project in south London. *Journal of Public Health, 38*(1), 115-121. doi: 10.1093/pubmed/fdv017

Center for Community Health and Development at the University of Kansas. (2017). *Community Toolbox. Strategies for Community Change and Improvement: An Overview*. Retrieved from https://ctb.ku.edu/en/table-of-contents/assessment/promotion-strategies/overview/main

City of Minneapolis Health Department. (2013). *Minneapolis Blueprint for Action to Prevent Youth Violence*. Retrieved from http://www.minneapolismn.gov/www/groups/public/@health/documents/webcontent/wcms1p-114466.pdf

City of Minneapolis Health Department. (2016). *2015 Youth Violence Prevention: A Results Minneapolis report*. Retrieved from http://www.minneapolismn.gov/www/groups/public/@health/documents/webcontent/wcmsp-189736.pdf

Douglas, J. A., Grills, C. T., Villanueva, S., & Subica, A. M. (2016). Empowerment praxis: Community organizing to redress systemic health disparities. *American Journal of Community Psychology, 58*, 488-498. doi: 10.1002/ajcp.12101

Han, H., Nicholas, A., Aimer, M., & Gray, J. (2015). An innovative community organizing campaign to improve mental health and wellbeing among Pacific Island youth in South Auckland, New Zealand. *Australasian Psychiatry, 23*(6), 670-674. doi: 10.1177/1039856215597539

Im, H. & Rosenberg, R. (2015). Building social capital through a peer-Led Community health workshop: A pilot with the Bhutanese refugee community. *Journal of Community Health, 41*, 509–517. doi: 10.1007/s10900-015-0124-z

Messias, D. H. & Estrada, R. D. (2016). In D. Mason, D. Gardner, D., F. Outlaw, F., & E. O'Grady (Eds.), An introduction to community activism (pp. 651-659). *Policy and Politics in Nursing and Health Care, 7th ed*. St. Louis, MO: Elsevier.

Minkler, M., Pies, C., & Hyde, C. A. (2012). Ethical issues in community organizing and capacity building. In M. Minkler (Ed.), *Community organizing and community building for health and welfare* (pp. 110-229). New Brunswick, NJ: Rutgers University Press.

Minkler, M. & Wallerstein, (2012). Community organization and improving health through community building. In M. Minkler, *Community organizing and community building for health and welfare* (pp. 37-90). New Brunswick, NJ: Rutgers University Press.

Musicant, G. (2011). A call to action-preventing community violence. *Public Health Nursing 28*(4), 295-296. doi: 10.1111/j.1525-1446.2011.00962.x

Pastor, M., Terriquez, V., & Lin, M. (2018). How community organizing promotes health equity, and how health equity affects organizing. *Health Affairs, 37*(3), 358-363. doi: 10.1377/hlthaff.2017.1285

Piper, S. M. (2011). Community empowerment for health visiting and other public health nursing. *Community Practitioner, 84*(8), 28-31.

Speer, P. W., Tesdahl, T. A., & Ayers, J. F, (2013). Community organizing practices in a globalizing era: Building power for health equity at the community level. *Journal of Health Psychology, 19*(1) 159-169. doi: 10.1177/1359105313500255

U.S. Department of Health and Human Services. (2011). *Principles of community engagement (2nd Ed.).* NIH Publication No. 11-7782. Retrieved from http://www.ucdmc.ucdavis.edu/crhd/images/pdf/PCE2_En.pdf

Urban Networks to Increase Thriving Youth (UNITY). (2011). *Mission and activities*. Retrieved from https://www.preventioninstitute.org/unity/general/mission-a-activities

Zanjani, B. (2011). *Blueprint for action-preventing violence in Minneapolis*. http://www.ncdsv.org/images/UNITY_CityVoices_BlueprintForActionMinneapolis_10-2011.pdf

COMMUNITY ORGANIZING

COALITION-BUILDING

COLLABORATION
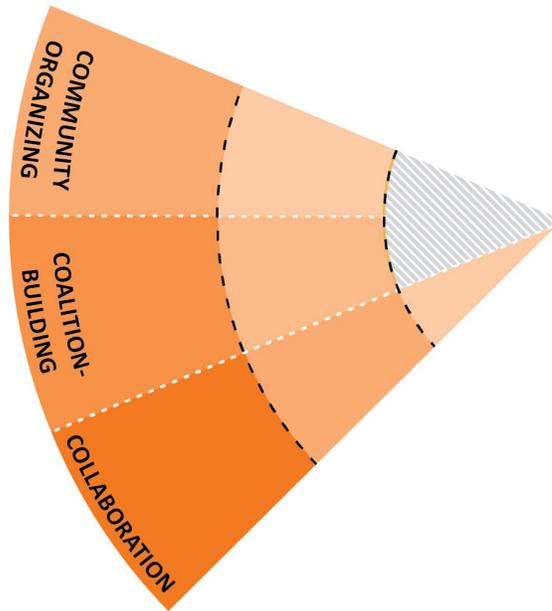
In review

A story:

The Healthy Start Coalition in Pinellas County, Florida, a community-based organization, oversees and funds initiatives addressing perinatal care in the community. To pinpoint areas with a higher risk of prematurity and infant mortality, the coalition created and analyzed maps of the county using GIS software.

"GIS, or geographic information systems, are computer-based tools used to store, visualize, analyze, and interpret geographic data. Geographic data (also called spatial, or geospatial data) identifies the geographic location of features" (Centers for Disease Control and Prevention, 2016). Public health practitioners can use GIS to answer specific data-related questions by collecting and analyzing geo-coded data on a wide variety of health problems. Examples include access to health care services or food, suicide mortality, or violent crime, among many others.

Pinellas County had a higher rate of prematurity (associated with infant mortality) when compared to all other Florida counties, higher rates of black infant mortality and low birthweight when compared to other racial and ethnic groups in the county,

and saw the Latinx infant mortality rate double in 10 years. The community-specific data engaged and motivated community members to respond (Detres, Lucio, & Vitucci, 2014).

Coalition members included program clients, the local health department, community agencies, health care providers, businesses, managed care representatives, and policymakers. As a coalition member, a local public health nurse (PHN) experienced in maternal and child health suggested feasible and practical coalition strategies that met the needs of this population.

The coalition used GIS to analyze Florida birth and infant death records from county data, and then reviewed the maps, discussing risk areas and changes over time for infant mortality and prematurity. The maps helped coalition members more easily identify high-risk zip codes (where prematurity and infant mortality rates were higher). The coalition asked for community feedback on how to address infant mortality and prematurity. The community identified demographic and housing changes needed, including new mobile home areas in high-risk neighborhoods. The group worked with the local community and developed a holistic plan to address risk factors affecting birth outcomes, including expanding services by hiring a nutritionist and contracting with a health system navigator to assist clients in accessing health care coverage and services.

The orange wedge features collaboration, coalition-building, and community organizing. Think about how a PHN, as a member of this group, could contribute to the implementation of these interventions.

Application questions

Consider the following questions for the story about using GIS as a community engagement tool.

Level of practice

1. What levels of practice do you see occurring in this story?

Collaboration

2. What factors contribute to a successful partnership for improving maternal and child health in the population?
3. How could a public health nurse use community engagement principles and cultural humility to guide collaboration efforts in this story?
4. How might the social and economic conditions experienced in these communities impact collaboration?

Coalition-building

5. What actions does a coalition take to develop itself more effectively?
6. What strategies might a public health nurse use to ensure coalition participants represent the population served?
7. What might a public health nurse do to ensure that public health professionals value the experience of those most impacted?
8. How might a public health nurse involved in this coalition contribute to effective coalition strategies?

Community organizing

9. How did the coalition use community organizing strategies to facilitate community empowerment?
10. What community organizing strategies did the coalition use to ensure group members came together to address the problem?
11. In the process of analyzing data, coalition members discussed changing demographics and housing patterns as indicated by the data (such as new mobile homes in high-risk areas).
    a. What actions might a public health nurse or the coalition take to address these community concerns?
    b. What ethical problems might emerge as the group discusses changes supported by the data?

References

Centers for Disease Control and Prevention. (2016). *What is GIS?* Retrieved from https://www.cdc.gov/gis/what-is-gis.htm

Detres, M., Lucio, R. & Vitucci, J. (2014). GIS as a community engagement tool: Developing a plan to reduce infant mortality risk factors. *Maternal and Child Health Journal, 18*, 1049-1055. doi: 10.1007/s10995-013-1337-3
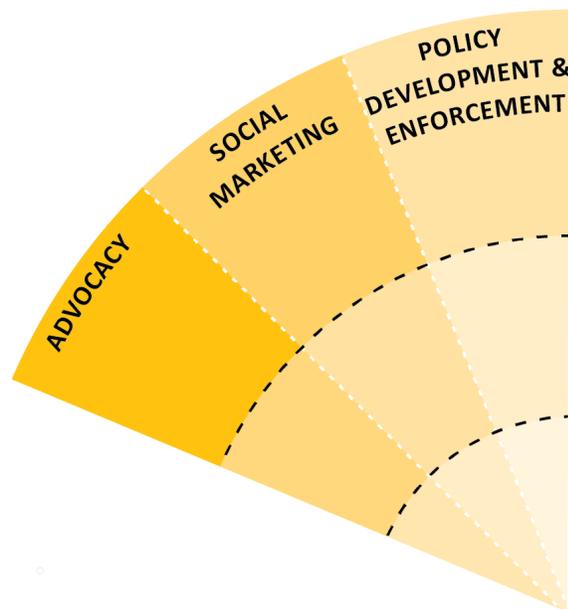
Advocacy

Advocacy is the act of promoting and protecting the health of individuals and communities "by collaborating with relevant stakeholders, facilitating access to health and social services, and actively engaging key decision-makers to support and enact policies to improve community health outcomes" (Ezeonwu, 2015, p. 123).

There are three ways to view public health nursing advocacy:

- A response to a client's right to information and self-determination
- A means of addressing client safety
- A philosophical principle

Practice-level examples

Population of interest: Individuals and communities at risk for childhood traumatic experiences.

Problem: Adverse child experiences, known as ACEs, are traumatic experiences in a person's life occurring before age 18, which the person remembers as an adult. Types of ACEs include physical abuse, sexual abuse, verbal abuse, mental illness of a household member, problematic drinking or alcoholism of a household member, illegal street or prescription drug use by a household member, divorce or separation of a parent, domestic violence towards a parent, and incarceration of a household member. ACEs are linked to poor health outcomes, including risky health behaviors, chronic health conditions, low life potential (e.g., lower graduation rates, time lost from work), and early death (Centers for Disease Control and Prevention, 2016; Minnesota Department of Health, 2013).

Systems level

The Philadelphia ACE Task Force (PATF), a citywide coalition of representatives from organizations serving children and families, focused on two areas to increase awareness of and response to ACEs in service and professional education systems: 1) understanding existing interventions in Philadelphia addressing childhood adversity and trauma; and 2) integrating ACEs content into medical, nursing, allied health, and human services curricula. Pachter, Lieberman, Bloom, and Fein (2017) recommended that local and national advocates encourage including ACEs as a core component of professional education.

Community level

The Philadelphia ACE Task Force provided education to the community about ACEs (Pachter et al., 2017).

Individual/family level

Through the Nurse-Family Partnership, public health nurses (PHNs) provide home visits to pregnant and parenting mothers until their children are 2 years old. The PHNs and mothers develop trusting relationships, and PHNs provide support that helps mothers take control of their lives, nurture their children, and build strong families (Nurse-Family Partnership, 2018).

Relationship with other interventions

PHNs frequently use advocacy with other interventions, such as **community organizing**, **coalition-building**, and **collaboration** as well as **policy development and enforcement**. Policy development success often occurs in conjunction with advocacy. **Health teaching** at the systems and community levels and **consultation** build community awareness prior to implementing advocacy. Media advocacy occurs when media promotes an issue or a cause.

A PHN uses advocacy at the individual level alongside **case management**. Selecting case management as an appropriate intervention assumes the PHN has assessed a client's need and is partnering with the client to determine a course of action to promote and protect health.

Basic steps

The following steps are adapted from the International Council of Nurses' Promoting health: Advocacy guide for professionals (2010).

1. Determine whether the organizational, positional, professional, and personal willingness exists to take action and overcome obstacles

Unfair and unjust practices, funding allocations, and unhealthy environments are situations that motivate PHNs to act and react with advocacy.

- A PHN may invite others to join advocacy action.
- A PHN may join advocacy initiatives already in process with other individuals, organizations, or communities.

2. Clearly select the advocacy focus

The focus of a PHN's or organization's advocacy should take into account political environment, resources, time, and potential allies and opponents.

Consider these questions selecting the focus:

- Will a solution to this problem or issue result in improving people's lives?
- Is this an issue or problem we think we can resolve?
- Is this an issue or problem easily understood?
- Can we tackle this issue or problem with the resources available?

3. Match the action to the situation

Selecting one's relevant role matches the advocacy action with the situation.

Possible roles:

- **Representative**: Speaking for people
- **Accompanying**: Speaking with people
- **Empowering**: Enabling people to speak for themselves
- **Mediating**: Facilitating communication between people
- **Modeling**: Demonstrating practice to people and policymakers
- **Negotiating**: Bargaining with those in power
- **Networking**: Building coalitions with other individuals or organizations

4. Understand political context and identify key people to influence

A strategy that works in one situation may not be effective in another situation.

Tailor strategies to each situation. Consider:

- Who is the ultimate decision-maker (organization board, chair, executive committee, or CEO; clergy member; person who has the most power or authority in a family)?
- What is to be decided (program priorities, work plans, policies, budgets)?
- How are decisions made (simple majority vote, consensus development, single decision-maker after receiving input; citizen involvement)?
- How are decisions to be enforced, implemented, and evaluated (who is accountable to whom, sanctions for failures or rewards for successes, evaluation strategies)?

5. Build a solid evidence base

The PHN grounds the issue in the best science-based evidence available and anticipates and understands the evidence of those with opposing perspectives.

- One may interpret evidence based on perspective. Policymakers may selectively use research to support pre-determined positions.
- Interpret evidence so that others understand its implications.
- Evidence is one source of information for policymakers in addition to beliefs, values, skills, resources, legislation, protocols, and client preferences.
- Public health decision-makers desire implementation suggestions, including what works and does not work for different populations. They view systematic evidence reviews and executive summaries as time-savers (Dobbins, Jack, Thomas, & Kothari, 2006).

6. Engage others—win the support of key individuals and organizations

Those with an interest in the advocacy outcome are more willing to support the issue if they can see the benefit of collective action advocacy.

- Individuals and organizations may have interests that are at odds.
- Help others see the common interest and benefit.

7. Develop a strategic plan

A plan provides a template for advocacy actions and provides criteria for evaluating those actions.

- If the advocacy focuses on systems- or community-level change, stakeholders must collectively identify what they consider as success and the methods to achieve it. The plan should identify who will do what and when.
- If the advocacy focuses on individuals or families, the plan must be negotiated with them and focus on developing the individual or family's capacity to advocate on their own behalf.

8. Communicate messages, implement the plan

Attention to a message's content and delivery increases its effectiveness.

- Deliver the message about what needs to change and why in the clearest, most succinct manner possible. Tailor the message to fit the audience.
- If the advocacy concerns communities and systems, include strategies to address opposing interest groups' messaging.
- If the advocacy concerns individuals and families, anticipate barriers and strategies to overcome them. Role-playing with the individual or family develops their capability to respond.

9. Seize opportunities

It is important to identify at what points the individual/family, community, or system may be most open to hearing the advocacy message.

- Time interventions and actions for maximum impact.
- Developing a trusting relationship facilitates openness to the message.

10. Be accountable

The plan needs constant monitoring and evaluation to make sure advocacy is moving forward.

- Compare and evaluate actual outcomes related to the expected outcomes.
- If the message is not received as anticipated or the plan encounters unexpected barriers, alter the plan and/or the message accordingly.

Example

Philadelphia has a high rate of child abuse and childhood food insecurity. Many of the city's organizations address the needs of children and families, but do not collaborate on services or specific issues. The Philadelphia ACE Task Force formed and conducted research on ACEs in the urban context, and identified focus areas for practical interventions around adversity, trauma, and resiliency (Pachter et al., 2017). Because PHNs have the knowledge and skills relevant to addressing ACEs, they contributed their expertise to task force discussions and decision-making about the advocacy focus.

1. Determine whether the organizational, positional, professional, and personal willingness exists to take action and overcome obstacles

> [The Institute for Safe Families, or ISF] brought together several child health leaders in Philadelphia to conceptualize building a local initiative around childhood adversity and trauma. ISF's mission was to prevent family violence and child abuse and to strengthen families to create nurturing, healthy environments that promote children's positive development. (Pachter et al., 2017, p. S130)

This group created the Philadelphia ACE Task Force.

2. Clearly select the advocacy focus

The Philadelphia ACE Task Force chose to focus on integrating ACEs screening into primary care.

3. Match the action to the situation

The task force assumed a networking role (building coalitions with other individuals or organizations) to help other organizations and individuals share their experiences addressing childhood adversity.

4. Understand political context and identify key people to influence

Because the Philadelphia ACE Task Force chose to focus on integrating ACEs screening into primary care, initial membership grew from invitations to pediatricians. As the group collected evidence, it transformed into a collaborative cutting across institutions and disciplines to focus on developing cross-system solutions to ACEs in Philadelphia. The work of the task force spread by word of mouth, leading to a broader and more diverse membership.

5. Build a solid evidence base

Research professionals conducted two focus groups with black and Latinx adults to identify childhood adversities as well as resilience and coping strategies experienced by adults who grew up in Philadelphia. The Philadelphia ACE Task Force contracted with a nonprofit public health organization to survey Philadelphia residents on ACEs and other toxic stressors and adversities (witnessing violence, experiencing racism, living in unsafe neighborhoods, experiencing bullying, being in foster care).

6. Engage others—win the support of key individuals and organizations

The Philadelphia ACE Task Force, the Institute for Safe Families, and the Robert Wood Johnson Foundation co-sponsored a national ACE meeting in 2013: the National Summit on Adverse Childhood Experiences. The meeting offered sessions on ACEs research, community-based ACE interventions, and policy and advocacy issues.

7. Develop a strategic plan

Three major areas of focus were identified by members of the task force: 1) educate the community about ACEs and their effect, 2) develop a better understanding of interventions available in Philadelphia to address childhood adversity and trauma, and 3) incorporate ACEs research and work into curricula of undergraduate and graduate medical, nursing, allied health, and human services programs. (Pachter et al., 2017, pp. S132-S133)

8. Communicate messages, implement the plan

The ACEs Connection Network website facilitated communication about models, barriers, successes, and examples of ACE interventions across the country. A Philadelphia-specific group used the website to share information among local individuals and organizations, and for keeping Philadelphia ACE Task Force members current with task force activities.

9. Seize opportunities

The Philadelphia ACE Task Force established workgroups for each of the three focus areas; two of the workgroups had funding support. The Professional Development workgroup collaborated with a fellow from the Annie E. Casey Foundation to develop and pilot an ACEs curriculum for health professionals.

10. Be accountable

The Philadelphia ACE Task Force succeeded because of external staff support and organizational leadership in the community. Local funding organizations provided financial and staff support that contributed to sustainability.

Key points from evidence

For a description of evidence levels, visit: **Introduction**: Overview of evidence-based practice and related topics.

1. Public health nurses as advocates for health improvement

As advocates for improving the health of individuals and communities, PHNs:

- Promote and protect health and safety
- Provide assistance to access health resources and social support
- Speak up and work on behalf of clients throughout the care continuum
- Push for legislative action to bring about change
- Consider the impact of policy decisions on human rights and social justice
- Adhere to truth and honesty in advocacy strategies

Level 3 sources:

- Ezeonwu, 2015
- Falk-Rafael & Betker, 2012
- Freudenberg, Bradley, & Serrano, 2009
- Toda, Sakamoto, Tagaya, Takahashi & Davis, 2015

Level 5 sources:

- Racher, 2007
- Selanders & Crane, 2012

2. Traits of a public health nurse advocate

Public health nurses who engage in advocacy:

- Care about an issue
- Have knowledge about the issue and the community
- Have knowledge about organizational communication challenges
- Have public health competency in needs assessment, communication, cultural understanding, leadership, and systems thinking
- Have the ability to build strong working relationships
- Have collaboration skills for networking with other agencies and organizations

Level 3 sources:

- Ezeonwu, 2015
- Joyce, O'Brien, Belew-LaDue, Dorjee, & Smith, 2014

3. Effective strategies and tools

Effective advocacy strategies and tools include:

- Mobilizing the public and multiple stakeholders
- Using multiple strategies
- Being sensitive to changing political environments
- Working with the media

- Networking
- **Social marketing**
- **Coalition-building**
- Lobbying
- Letter writing
- Internet-based advocacy

Level 3 source:

- Freudenberg et al., 2009

Level 4 source:

- International Council of Nurses, 2008

4. Effective advocacy message components

Effective advocacy messages integrate policy demands with value statements. The following questions address message components:

a.   What's wrong? Make a clear statement of concern.
b.   Why does it matter? Address values and what is at stake.
c.   What should be done about it? Clearly state the policy objective with a specific, feasible solution.

Level 5 source:

- Dorfman, Wallack, & Woodruff, 2005

5. Framing advocacy messages for media

Possible questions to address when framing advocacy messages for media include:

- Can this story be associated with a local, national, or topical historical event?
- What is new or different about this story?
- Is there a celebrity already involved with or willing to lend their name to the issue?
- Are there adversaries or other tensions in this story?
- Are there basic inequalities or unfair circumstances?
- What is ironic, unusual, or inconsistent about this story?
- Why is this story important or meaningful to local residents?
- Is this story an important historical marker?
- Who is the face of the victim in this story? Who has the authentic voice on this issue?
- Can this story be attached to a holiday or seasonal event?

Level 4 source:

- International Council of Nurses, 2008

Level 5 source:

- Wallack, Dorfman, Jernigan, & Themba, 1993

6. Consequences of advocacy actions

A concept analysis of advocacy identified the following five consequences from advocacy actions that address human rights and social justice perspectives:

- Improved access
- Equity
- Social justice
- Empowerment
- Health and social reform

Level 3 source:

- Ezeonwu, 2015, p. 120

7. Ethical challenges

Public health nurses may encounter the following ethical challenges during advocacy actions with clients:

- Conflict regarding client selection (possible conflict between advocating for parent or child, individual vs. family views, individual rights vs. good of the community)
- Conflict with the PHN's values
- Putting oneself at risk (e.g., advocating for a client experiencing domestic violence)
- Disagreements with colleagues or other health professionals about the advocacy action
- Considering risk vs. benefit when supporting a client's right to choose in a situation where that choice potentially results in harm (e.g., a parent refuses to obtain immunizations for their child)
- Maintaining professional boundaries

Level 3 source:

- Oberle & Tenove, 2000

8. Challenges at the systems level

Challenges to policy advocacy at the systems level include:

- Some organizations and policymakers view systems-level advocacy as beyond the scope of nursing influence.
- Nursing education does not adequately prepare nurses for involvement in health policy.
- Philosophical divisions within nursing may prevent collaboration on policy development.
- Nursing practice factors (heavy workloads, understaffing, powerlessness in organizations, lack of time) contribute to political apathy among nurses.

Level 5 source:

- Spenceley, Reutter, & Allen, 2006

9. Policy-level intervention suggestions

For families living in poverty, PHNs primarily focus on helping family members access services rather than intervening at the policy level. Suggestions for PHNs to increase advocacy for policy change include:

- Initiate public discussion on how poverty affects health, and how policies keep families living in poverty.
- Raise the issue of family poverty during meetings of professional organizations.
- Support local anti-poverty groups.
- Use information from monitoring activities to advocate for healthy public policies.
- Inform the public about the impact of poverty on families and children.

Level 5 source:

- Cohen & Reutter, 2007

Wheel notes

Human rights and social justice perspectives

Nursing literature highlights the use of advocacy to address both human rights and social justice issues. Researchers framing advocacy from a human rights perspective often address advocacy at the individual level, while those working from a social justice perspective more often focus on advocating for change in systems to improve population health. Historically, nursing advocacy has emphasized human rights, beginning with the writings of Florence Nightingale. Although nursing literature continues to feature a human rights emphasis (Vaartio & Keino-Kilpi, 2004), current literature also highlights policy advocacy at the systems level (Ezeonwu, 2015; Falk-Rafael & Betker, 2012; International Council of Nurses, 2008).

Medical paternalism

"Medical paternalism" occurs when a professional makes a decision on what constitutes the client's best interest (Zomordi & Foley, 2009). To counteract paternalism, PHNs can use advocacy-focused communication strategies like open-ended questions, terms understood and preferred by clients and families, and responding fully to questions. Relational ethics promotes advocacy actions through the nurse/client relationship (MacDonald, 2007). Questions that can lead to an advocacy intervention include:

- How does the current situation affect the client's autonomy and capacity for critical thinking?
- How does the client embody or balance the implications of the scientific knowledge presented and its emotional ramifications?
- Does mutual respect exist?
- Does the client understand their values and wishes are held in regard?
- Does true engagement exist, where the nurse and the client are sufficiently invested in each other to assure mutual concern?

Advocacy or empowerment?

The literature reveals that advocacy and empowerment overlap, with both enabling self-reliance in others, communities, and systems. Empowerment involves assisting others to discover and use the power within individuals/families, communities, or systems; advocacy is not something done or given to another. While empowerment may be a consequence of advocacy actions, some individuals, families, groups, communities, and systems may continue to require someone to speak or act on their behalf.

References

Centers for Disease Control and Prevention. (2016). *About adverse childhood experiences*. Retrieved from https://www.cdc.gov/violenceprevention/acestudy/about_ace.html

Cohen, B. E. & Reutter, L. (2007). Development of the role of public health nurses in addressing child and family poverty: a framework for action. *Journal of Advanced Nursing, 60*(1), 96-107. doi: 10.1111/j.1365-2648.2006.04154.x

Dobbins, M., Jack, S., Thomas, H., & Kothari, A. (2007) Public health decision-makers' informational needs and preferences for receiving research evidence. *Worldviews on Evidence-based Nursing, 4*(3), 153-167.

Dorfman, L., Wallack, L., & Woodruff, K. (2005). More than a message: Framing public health advocacy to change corporate practices. *Health Education & Behavior, 32*(3), 320-336. doi: 10.1177/1090198105275046

Ezeonwu, M. C. (2015). Community health nursing advocacy: A concept analysis. Journal of *Community Health Nursing, 32*(2), 115-128. doi:10.1080/07370016.2015.1024547

Falk-Rafael, A. & Betker, C. (2012). Witnessing social injustice downstream and advocating for health equity upstream: "The trombone slide" of nursing. *Advances in Nursing Science, 35*(2), 98-112. doi: 10.1097/ANS.0b013e31824fe70f

Freudenberg, N., Bradley, S. P., & Serrano, M. (2009). Public health campaigns to change industry practices that damage health: An analysis of 12 case studies. *Health Education & Behavior, 36*(2), 230-249. doi: 10.1177/1090198107301330

International Council of Nurses. (2008). *Advocacy guide for health professionals*. Retrieved from http://www.whpa.org/PPE_Advocacy_Guide.pdf

Joyce, B. L., O'Brien, K., Belew-LaDue, Dorjee, T. K., & Smith, C. M. (2014). Revealing the voices of public health nurses by exploring their lived experience. *Public Health Nursing, 32*(2), 151-160. doi: 10.1111/phn.12113

MacDonald, H. (2007). Relational ethics and advocacy in nursing: Literature review. *Journal of Advanced Nursing 57*(2), 119-126. doi: 10.1111/j.1365-2648.2006.04063.x

Minnesota Department of Health. (2013). *Adverse childhood experiences in Minnesota*. Retrieved from http://www.health.state.mn.us/divs/chs/brfss/ACE_ExecutiveSummary.pdf

Nurse-Family Partnership. (2018). *A young family's bright future begins with a great nurse*. Retrieved from https://www.nursefamilypartnership.org/nurses/

Oberle, K. & Tenove, S. (2000). Ethical issues in public health nursing. *Nursing Ethics, 7*(5), 425-438.

Pachter, L. M., Lieberman, L., Bloom, S. L., & Fein, J. A. (2017). Developing a community-wide initiative to address childhood adversity and toxic stress: A case study of the Philadelphia ACE Task Force. *Academic Pediatrics, 17*(7S), S130-S135.

Racher, F. E. (2007). The evolution of ethics for community practice. *Journal of Community Health Nursing, 24*(1), 65-76. doi.org/10.1080/07370010709336586

Selanders, L. C. & Crane, P. C. (2012). The voice of Florence Nightingale on advocacy. *Online Journal of Issues in Nursing 17*(1). doi.org/10.3912/OJIN.Vol17No01Man01

Spenceley, S. M., Reutter, L., & Allen, M. N. (2006). The road less traveled: Nursing advocacy at the policy level. *Policy, Politics, & Nursing Practice, 7*(3), 180-194. doi: 10.1177/1527154406293683

Toda, Y., Sakamoto, M., Tagaya, A., Takahashi, M., & Davis, S. J. (2015). Patient advocacy: Japanese psychiatric nurses recognizing necessity for intervention. *Nursing Ethics, 22*(7), 765-777. doi: 10.1177/0969733014547971

Vaartio, H. & Leino-Kilpi, H. (2005). Nursing advocacy—a review of the empirical research 1990-2003. *International Journal of Nursing Studies, 42*, 705-714.

Wallack, L., Dorfman, L., Jernigan, D., & Themba, M. (1993). *Media advocacy and public health: Power for prevention*. Thousand Oak, CA: Sage Publications.

Zomorodi, M. & Foley, B. J. (2009). The nature of advocacy vs. paternalism in nursing: Clarifying the 'thin line.' *Journal of Advanced Nursing 65*(8), 1746-1752. doi: 10.1111/j.1365-2648.2009.05023.x
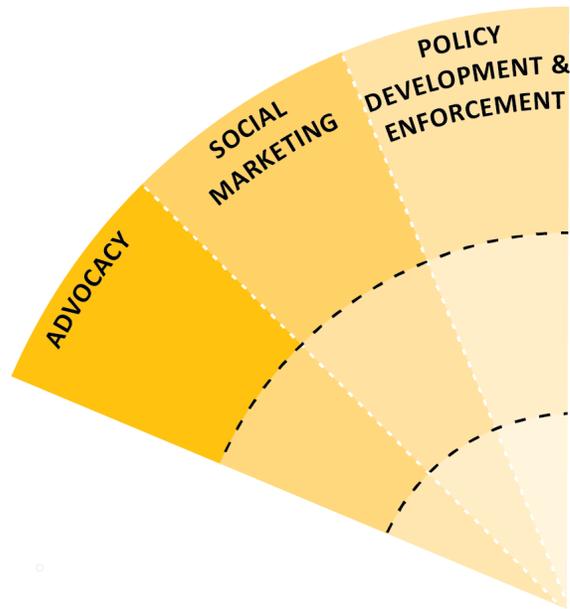
Social marketing

"Social marketing is a process that uses marketing principles and techniques to change target audience behaviors to benefit society as well as the individual" (Lee & Kotler, 2016, p. 9).

Key social marketing themes include:

- Influencing behaviors
- Applying marketing principles and techniques via a systematic planning process
- Focusing on priority audience segments
- Delivering a positive benefit for individuals and society

"In the case of health-related social marketing, the social good can be articulated in terms of achieving specific, achievable, and manageable behavior goals, relevant to improving health and reducing health inequalities" (Quinn, Ellery, Thomas, & Marshall, 2010, p. 335). An initiative is consistent with social marketing when its driving concern focuses on understanding the customer (client) and on achieving and sustaining specific behaviors (French & Blair-Stevens, 2010).

Practice-level examples

Population of interest: Adolescents.

Problem: Bullying among adolescents occurs worldwide, resulting in negative health consequences like school absenteeism, lower academic achievement, and adverse mental and physical health outcomes. Bullying includes physical aggression, verbal harassment, discriminatory harassment targeting a person's characteristics, and more recently cyber victimization (Salmon, Turner, Taillieu, Fortier, & Afifi, 2018).

Systems level

A school nurse convenes a district task group, including student representatives, to discuss and identify anti-bullying social marketing interventions at the district level. The school nurse asks the group to consider using systems-level strategies found at StopBullying.gov, which provides organizations with social marketing strategies to address bullying and cyberbullying.

Community level

The Howard County Public School System in Maryland joined together with students and the community to create bully-free zones. The school system hosted a bully prevention event, and school nurses and PHNs used the video, Bullying Prevention Message, to help convey messaging when meeting with adolescents, their parents, and community organizations (Timmons-Mitchell, Levesque, Harris, Flannery, & Falcone, 2016).

Individual/family level

School nurses marketed bullying prevention messages to adolescents, their families, and school staff with posters, online communication, newsletters, and classroom presentations. The school nurses adapted messages from resources like StandUp, an online school-based bullying prevention program that focuses on developing healthy relationships (Timmons-Mitchell et al., 2016).

Relationship with other interventions

Social marketing, first introduced in 1971, contains similarities to some longer-established interventions. Like **health teaching**, social marketing aims to change attitudes and behaviors, and some see it as a special application of health teaching. Public health nurses (PHNs) use health teaching most frequently at the individual/family and systems practice levels, and use social marketing more frequently at the community level of practice, incorporated with principles of marketing. At the community level, social marketing overlaps with **advocacy**, often implemented as media advocacy.

Basic steps

Public health nurses adapt the basic steps for social marketing from several sources that apply marketing principles to health behavior change (Brown, 2006; Evans & McCormack, 2008; Grieg & Bryant, 2006; Lee & Kotler, 2016; Stellefsen & Eddy, 2008). Lee and Kotler focused specifically on the social marketing planning stage.

1. Describe plan background, purpose, and focus

- Prior to developing a targeted plan, identify the social issue or problem, and factors that contribute to the issue or problem.
- Develop a purpose statement that communicates the benefit of the social marketing plan.
- To narrow the scope of the problem, choose from potential options that address the plan's purpose. For example, in order to improve water quality (purpose), one could choose to address pesticide use (option).

2. Conduct a situation analysis

Understanding factors and forces in the environment determines the relevance of planning decisions.

- Analyze strengths to maximize and weaknesses to minimize, using a SWOT analysis (SWOT stands for strengths, weaknesses, opportunities, and threats). Internal factors include available resources, expertise, administrative support, and partners, which may constitute strengths or weaknesses. External factors include cultural, technological, demographic, economic, political, and legal forces that represent opportunities or threats.
- Investigate colleague experiences, LISTSERVs, and the literature for lessons learned from similar social marketing campaigns.

3. Select target audience

Identifying the audience determines additional planning steps. Target market characteristics include stages of change, demographics, geography, behaviors, psychographics, and size of market. Segment the market or population (break it into smaller groups) based on specific criteria, and choose one or more groups for marketing strategies.

- **Primary audience or population of interest**: Subgroup, family, or individual in which the behavior change is desired
- **Secondary audience**: Those who help the primary audience make the desired behavior change

4. Set behavior objectives and goals

Goals and objectives guide social marketing decisions.

- **Goals**: Desired long-term aims
- **Objectives**: Specific and concrete accomplishments needed to reach goals
    - Knowledge objectives: Information and facts included in the social marketing strategies
    - Belief objectives: Feelings and attitudes the social marketing strategies need to influence
    - SMART objectives: Specific, measureable, attainable, relevant, and time-bound

5. Identify benefits, motivators, barriers, and change strategies

Understand the target market's preferred behavior (competition).

- What makes the current behavior attractive?
- Why do people not want to change their behavior?
- What real or perceived barriers exist to behavior change?
- What behavior change strategies does the target market embrace?

6. Craft a positioning statement

A positioning statement "[explains how you] want the target audience to see the targeted behavior, highlighting unique benefits" (Lee & Kotler, 2016, p. 51).

- Include a description of the target audience, competitors, barriers, and motivators to action.
- Use the positioning statement to guide the development of the marketing mix.

7. Develop a strategic marketing mix (four P's)

Use the four P's (product, price, place, and promotion) when developing a marketing strategy.

Product

Using the example of promoting mammograms, the product is the benefits associated with the behavior change:

- **Core product**: Bundle of benefits (i.e., peace of mind and early detection from obtaining a mammogram)
- **Actual product**: Desired behavior (i.e., obtaining a mammogram)
- **Augmented product**: Tangible goods and services (e.g., low cost, accessible, friendly mammogram services)

One could ask the following questions about the mammogram screening example:

- What should be done to increase screenings?
- How should the screening be described?
- What are the client benefits?

Price

The price is the cost or sacrifice exchanged for the promised benefit:

- Consider the cost from the client's view.
- The price may include intangible costs that accompany the change (loss of time, psychological hassle, embarrassment).

Questions about the cost for the mammogram screening example include:

- Is there a significant financial cost?
- Is comfort with screening a concern for women?
- Do women feel susceptible to breast cancer?

Place

The place includes where and when the target market performs the desired behavior:

- Where considers physical location, organizations and people who provide information, goods and services, attractiveness and comfort, and accessibility (parking and public transportation).
- When includes operating hours.

Consider the following questions about place for the mammogram screening example:

- Where do women obtain the screening?
- What partners help gain the interest of women?
- What communication channels best distribute the screening message?

Promotion

Promotion includes persuasive messages communicating product benefits, services, pricing, and place:

- Consider multiple elements, including specific communication objectives for each target example, guidelines for developing prominent, effective messages, and designating communication channels.
- Integrate the marketing mix of the four P's
- Consider a spokesperson who can share their story related to the product.

Questions to consider when developing a promotional strategy include:

- What is the product?
- Who is the customer?
- What is your purpose for promoting the product?
- What message will you convey?
- What promotional tools will you use?
- What promotional communication materials will you use? (Thackeray, Neiger, & Hanson, 2007)

8. Outline a monitoring and evaluation plan

Develop an evaluation strategy prior to plan implementation to ensure outcomes are monitored on an ongoing basis:

- Clarify the evaluation purpose and audience.
- Refer to established goals for the desired levels of change in behavior, knowledge, and beliefs.
- Establish three categories of measures:
  - Output measures (campaign activities)
  - Outcome measures (the responses of the target market, including changes in knowledge, beliefs, and behavior)
  - Impact measures (contributions to the plan purpose)

9. Establish budgets and find funding sources

Determine if available budget and funding stream(s) support the selected strategies:

- Summarize funding requirements and potential funding sources for product benefits, features, and distribution channels.
- Revise goals, target audience, and strategies based on secured funding sources, including partner contributions.

10. Implement the plan

After completing planning steps, implement the plan.

- Facilitate as needed who does what, when.
- Produce products and materials as planned.
- Coordinate with partners.
- Remain open to new opportunities.
- During implementation, pay attention to client response (Thackeray & Neiger, 2009):
  - Structure interactions so clients focus on the positive outcomes.
  - Provide clients with messaging that encourages them to talk about products to friends and family.
  - Note social media posts about the product and the organization.
- Use a planning matrix on market segmentation. Market segmentation uses lessons learned about a subgroup within a priority population to create programs and services that target that subgroup's wants and needs (Stellefson & Eddy, 2008). For each segment, identify the following components in a matrix:
  - Segment
  - Relevant characteristics
  - Message
  - Channels
  - Evaluation
- For example, a social marketing campaign that promotes immunization might include the segments "unaware," "afraid and untrusting," and "religious opponents" (Slater, Kelly, & Thackeray, 2006).

11. Monitor and evaluate plan implementation

Monitoring and evaluating social marketing activities during implementation helps identify mid-course revisions, and can help refine the social marketing program.

- Answer the question: "Did we change what we intended to change (knowledge, behaviors, or attitudes)?"
- Include intermediate measures and/or process measures to determine program effectiveness.
- Use feedback to refine implementation strategy.

Example

The Howard County Public School System in Maryland joined with community partners to implement a campaign to prevent cyberbullying and other bullying behaviors (Howard County Public School System, 2017a; StopBullying.gov, 2013). A school nurse contributed knowledge and skills to planning and implementing bullying prevention social marketing strategies.

1. Describe the plan background, purpose, and focus

After serious bullying incidents (including a suicide), Howard County Public School System, including school nurses throughout the district, decided to tackle bullying and cyber harassment by raising awareness.

2. Conduct a situation analysis

Planners reviewed current laws and discussed whether to advocate for new state legislation. They looked at how the public schools collected and handled bullying reports and incidents.

3. Select target audience

After exploration and discussion, planners chose a multi-faceted and comprehensive approach including community partners.

4. Set behavior objectives and goals

The planners invited community partners and identified three approaches:

a. **Developing a social marketing awareness campaign about the severe effects of bullying and what to do when it occurs**: The public library system took the lead in creating the "Choose Civility" campaign to communicate positive messages about

treating others with respect. The bullying prevention campaign used lessons learned from that work to develop a similar message around bullying.

b. **Developing a tool to report bullying when it happens, in real time**: The planners used a customized web-based reporting application called Sprigeo, in which a person anonymously reports bullying in schools, at a park or library, or elsewhere in the community.

c. **Making materials and training available for those who work with students on the skills and knowledge needed to address bullying**: For example, StopBullying.gov created Bullying Prevention Training Center: Bullying prevention continuing education course (2017).

5. Identify benefits, motivators, barriers, and change strategies

Bullying prevention messages needed to address motivators for bullying and behaviors to change. The planners met with students to identify barriers and motivators, and to discuss perceptions of factors that contribute to and prevent bullying behavior.

6. Craft a positioning statement

[The Howard County Public School System] has taken a strong stand against bullying with a goal to eradicate bullying. No act of bullying in Howard County schools will be ignored. Unfortunately, bullying is a reality that lives within the hallways of our schools and one that we must root out once and for all. We know that those who are bullied may experience depression, anxiety, sadness and loneliness. They can suffer from changes in sleep and eating patterns and loss of interest in activities that they typically enjoy. Children who have suffered through bullying have gone so far as to injure themselves and even take their own life. (Howard County Public School System, 2017b)

7. Develop a strategic marketing mix (Four P's)

Product: The core product was the assurance that bullying behaviors will be addressed. The actual product was fewer bullying incidents. The augmented product was a safe school and community environment.

Price: Although there was a cost involved in developing and implementing the bullying prevention plan, fewer bullying incidents decreased the staff burden related to response, and results in a cost savings.

Place: The target market was the community served by the Howard County Public School System.

Promotion: One example of a promotional tool was the public service announcement at a school-sponsored prevention event, Bullying prevention message (2017c). The

video featured two spokespeople: the interim school superintendent, and a mother of a daughter who committed suicide following cyberbullying incidents.

8. Outline a monitoring and evaluation plan

The Howard County Public School System developed a Bullying, harassment, or intimidation reporting form (PDF):

> [The reporting form helps individuals] report alleged bullying, harassment, or intimidation that occurred during the current school year on school property, at a school-sponsored activity or event off school property, on a school bus, on the way to and/or from school, or on the Internet, sent on or off school property; or that substantially disrupted the orderly operation of the school. (2017b)

The form included definitions of bullying. The number of forms submitted provides a strategy for measuring change in the incidence of bullying behaviors.

9. Establish budgets and find funding sources

Contributions from partners included the federal government, the Health Resources and Services Administration (HRSA), local leaders, and local organizations including youth sports leagues and the YMCA.

10. Implement the plan

During implementation, the planners noted the response of different market segments within the community—students, parents, school staff, community organizations, and the public.

11. Monitor and evaluate plan implementation

The evaluation plan initially called for evaluating whether the bullying prevention campaign changed knowledge, behaviors, and attitudes related to bullying. Intermediate measures on community responses were important for refining social marketing messages. Later measures would compare bullying incidence rates to the rate occurring during the 2016-2017 (baseline) school year.

Key points from evidence

For a description of evidence levels, visit: **Introduction**: Overview of evidence-based practice and related topics.

1. Theories supporting social marketing

Several theories support social marketing: Exchange theory, the Theory of Planned Behavior, and the health belief model. These theories explain how motivation and incentives lead individuals or groups to adopt healthy behaviors.

Level 5 sources:

- Opel, Diekema, Lee, & Marcuse, 2009
- Slater et al., 2006
- Thackeray, 2010

2. Identifying social marketing interventions

Interventions can be categorized as social marketing if they meet the following criteria:

- The intervention focuses on actual change of behavior rather than a change in awareness or knowledge.
- The identified behavior is measurable and observable.
- Research is conducted to provide insight into the consumer experience and to drive decision-making.
- Consumer research analysis provides those planning the intervention with insight into targets of opportunity.
- The intervention strategy is tailored to targets of opportunity and marketing mix (product, price, place, promotion, exchange, competition).
- Concepts related to the intervention strategy and the marketing mix are pre-tested with the intended audience.
- The strategy is implemented consistent with the plan.
- The intervention is evaluated, and change in behavior occurs.

Level 5 source:

- Quinn et al., 2010

3. Effective social marketing

Tips for effective social marketing include:

- Develop a plan that includes attention to all aspects of the marketing mix—product, price, place, and promotion—as well as policy and partnerships.
- Use research throughout the process—carefully review existing literature, and collect new data through focus groups, surveys, and observation.
- Involve the target population, including opinion leaders, to actively participate in and co-create the development process.

- Locate opinion leaders—people who have social influence and have adopted the desired behavior or attitude—who can serve as catalysts for behavior change through role-modeling and social relationships.
- Consider socioeconomic factors, cultural beliefs, values, geographic location, and local norms and values.
- Focus on voluntary behavior.
- Know that exchange theory is fundamental. The target audience must perceive benefits that equal or exceed perceived costs associated with performing the behavior.
- Address costs and benefits of behavior change.
- Employ marketing techniques, including consumer-oriented market research, segmentation and targeting, and marketing mix of strategies.
- Focus on the end goal of improving individual and societal well-being, rather than focusing on the organization.
- Avoid message clutter and information overload.
- Use stories and anecdotes when presenting risk data.
- Use multiple approaches (written, oral, visual graphics, electronic) and repetition to maximize your promotion messaging.
- Anticipate and manage controversy and conflict.
- Avoid terminology, phrases, or visual cues that reinforce stereotypes or contradict verbal messages.
- Remember that social marketing is not social media marketing. Social media is one valuable marketing channel, but do not neglect other methods like radio/podcasts, television, posters, periodicals, and other written material.

Level 2 source:

- Firestone, Rowe, Modi, & Sievers, 2017

Level 3 source:

- Stead, Gordon, Angus, & McDermott, 2007

Level 5 source:

- Schoon, Porta, & Schaffer, 2019

4. Augmented products and questions to consider

Consider the following when designing a new augmented product (tangible good or service) or modifying an existing one:

- Should a new service be developed and offered?
- Does an existing service need to be enhanced?
- Should a new product be developed (or be encouraged to be developed) to encourage behavior change?
- Does a current product need to be improved or enhanced?
- Is there a need or opportunity for a substitute product?

Level 5 source:

- Brown, 2006

5. Criteria for identifying and validating good practice

Specific benchmark criteria for identifying and validating good social marketing practice include:

- Customer (client) orientation
- Behavioral goals
- Theory-based factors that contribute to behavior (biological and physical, psychological, social, environmental)
- Insight into what motivates people
- Exchange (what is the person willing to give in order to get expected benefits?)
- Competition (identifying and minimizing competitors)
- Segmentation (identifying specific audiences based on demographic and epidemiological data)
- Marketing mix (examining the most effective approaches and including more than one approach)

Level 5 source:

- French & Blair-Stevens, 2010

6. Ethical norms and values

Ethical norms and values for social marketing include:

- Do no harm by avoiding harmful actions and omissions. Adhere to all applicable laws and regulations.
- Foster trust in the marketing system by avoiding deception in design, communication, and/or distribution.
- Embrace ethical values by building relationships and adhering to core values of honesty, responsibility, fairness, respect, transparency, and citizenship.
- Promote the understanding and use of information by avoiding information overload and complexity.

Level 5 sources:

- Evans & McCormack, 2008
- Lee & Kotler, 2016

7. Developing strategies

Use the following questions to develop social marketing strategies:

- What is the nature and scope of the (social) issue?
- Which factors do you want to address?
- How? What's the evidence?
- Who do you want to reach (key audience)?
- What do you want them to do?
- What are the most important characteristics of the audience and context?
- What does the audience prefer?
- What are you going to do (your produce, price, and place strategies to make the behavior more attractive, less costly, and/or easier)?

- What are you going to say (your promotional strategy, including messages and channels)?
- What is your time frame?
- What levels of human and financial resources are required, including tools and material costs?
- How and when will you know if you implemented your strategy successfully (process evaluation?)
- How and when will you know if you measurably impacted the factors you wanted to influence (outcome evaluation, including indicators and methodologies)?

Level 5 sources:

- Lagarde, 2006
- Thackeray et al., 2007

8. Social media

Social media is a social marketing tool that can motivate people to make safer and healthier decisions. Consider the following when using social media in social marketing:

- Make strategic choices and understand the level of effort.
- Go where the people are.
- Adopt low-risk tools first.
- Make sure messages are science-based.
- Create portable content.
- Facilitate viral information sharing.
- Encourage partner and public participation.
- Tailor content to population group needs.
- Provide multiple formats.
- Consider mobile technologies.
- Set realistic goals.
- Learn from metrics and evaluate your efforts.

Level 4 source:

- Centers for Disease Control and Prevention, 2011

9. Examples of successful campaigns

Social marketing interventions increased knowledge about health problems or risks and/or contributed to behavior change for the following social marketing initiatives:

- The "Could It Be Asthma?" campaign targeted parents and caregivers of children in a rural New York community via television advertising, brochures, and posters.
- A mass media campaign in a rural area of the United States disseminated messages emphasizing the health risks of sugar-sweetened beverages via television, digital channels, and local organizations, over a 15-week time period.
- A social marketing intervention targeted parents and guardians of inner-city youth in the Midwestern United States to provide drowning prevention messages using a variety of channels (brochure, e-mail, text message, postcard, Facebook post, window cling).

- American Indian adults recruited at a community health fair viewed messages promoting dental sealants for young children.
- Rhode Island Health Department staff developed a social marketing intervention focusing on emergency preparedness.
- A social marketing initiative promoted the use of folic acid to Hispanic women.
- In Spain, a peer-led social marketing approach, titled," We Are Cool" focused on increasing healthy eating and physical activity.

Level 1 source:

- Aceves-Martin et al., 2017

Level 2 sources:

- Farley, Halper, Carlin, Emmerson, Foster, & Fertig, 2017
- Glassman, Castor, Karmakar, 2018

Level 3 sources:

- Briones, Lustik, & LaLone, 2010
- Larsson et al., 2015
- Marshall et al., 2007
- Quinn, Hauser, Bell-Ellison, Rodriguez, & Fr´ıas, 2006

Wheel notes

Historical example

Using social marketing to target tobacco use was one of the first examples of social marketing to promote public health in modern history. Tobacco became a social marketing target for public health when research in the 1950s linked smoking with cancer. Public health messaging has consistently competed with the tobacco industry. Social marketing strategies, along with smoking bans and tobacco products taxes, have contributed to a decrease in smoking rates. Today social marketing strategies address how to quit, target youth, and focus on the effects of secondhand smoke (Centers for Disease Control and Prevention, 2018; Wright, 2011).

Know your audience

Although most of the literature on social marketing focuses on the community and systems levels, social marketing interventions are also relevant at the individual/family level. When PHNs "begin where the client is," they use the social marketing assessment process to learn about their audience (the client). Knowledge about client demographics, culture, and behavior determine the "marketing mix" or strategies that motivate health behavior change. One example of social marketing in this context is an app for new mothers that promotes breastfeeding by tracking time fed, from which breast infants were fed, and infant response.

The Six P's

Most social marketing literature identifies four P's—product, price, place, and promotion. In a systematic review of articles on social marketing interventions, Luca and Suggs (2010) identified two additional P's: policy and partnerships, applicable at the community and systems levels. **Policy** encompasses organizational or governmental policy change that promotes behavior change through social marketing—for example, when using social marketing strategies to communicate about laws that mandate seat belt use. **Partnerships** are formed with other organizations and stakeholders to promote societal behavior change—for example, when cities and health departments partner on promoting smoke-free environments.

References

Aceves-Martins, M., Llauradó, E., Tarro, L., Morina, D., Papell-Garcia, I., Praedes-Tena, J., et al. (2017). A school-based, peer-led, social marketing intervention to engage Spanish adolescents in a healthy lifestyle ("We are cool"—Som la pera study): A parallel-cluster randomized controlled study. *Childhood Obesity, 13*(4), 300-313. doi: 10.1089/chi.2016.0216

Briones, K., Lustik, F., & LaLone, J. (2010). Could it be asthma? Using social marketing strategies to increase parent and caregiver knowledge of asthma symptoms in children in a rural community. *Health Promotion Practice, 11*(6), 859-866. doi: 10.1177/1524839909348735

Brown, K. M. (2006). Defining the product in social marketing effort. *Health Promotion Practice, 7*(4), 384-387. doi: 10.1177/1524839906291323

Centers for Disease Control and Prevention. (2011). *The health communicator's social media toolkit.* Retrieved from https://www.cdc.gov/socialmedia/tools/guidelines/socialmediatoolkit.html

Centers for Disease Control and Prevention. (2018). *Smoking and tobacco use*. Retrieved from https://www.cdc.gov/tobacco/

Evans, W. D. & McCormack, L. (2008). Applying social marketing in health care: Communicating evidence to change consumer behavior. *Medical Decision Making, 28*(5), 781-782. doi: 10.1177/0272989X08318464

Farley, T. A., Halper, H. S., Carlin, A. M., Emmerson, K. M., Foster, K. N., & Fertig, A. R. (2017). Mass media campaign to reduce consumption of sugar-sweetened beverages in a rural area of the United States. *American Journal of Public Health, 107*(6), 989-995. doi: 10.2105/AJPH.2017.303750

Firestone, R., Rowe, C. J., Modi, S. N., & Sievers, D. (2017). The effectiveness of social marketing in global health: A systematic review. *Health Policy and Planning, 32*, 110-124. doi: 10.1093/heapol/czw088

French, J. & Blair-Stevens, C. (2010). Key concepts and principles of social marketing. In J. French (Ed). *Social marketing: Theory and practice* (pp. 31-43) New York: Oxford University Press.

Glassman, T. J., Castor, T., & Karmakar, M. (2018). A social marketing intervention to prevent drowning among inner-city youth. *Health Promotion Practice, 19*(2), 175-183. doi: 10.1177/1524839917732559

Grier, S. & Bryant, C. A. (2006). Social marketing in public health. *Annual Review of Public Health, 26*, 319-339. doi: 10.1146/annurev.publhealth.26.021304.144610

Howard County Public School System. (2017a). *HCPSS interim superintendent joins students and community to eliminate bullying*. Retrieved from https://www.hcpss.org/news-posts/2017/10/hcpss-interim-superintendent-joins-students-and-community-to-eliminate-bullying/

Howard County Public School System. (2017b). *Report bullying*. Retrieved from https://www.hcpss.org/parents/school-culture-and-climate/report-bullying/

Howard County Public School System [HCPSS]. (2017c, October 17). *Bullying prevention message* [video file]. Retrieved from https://vimeo.com/238634184

Lagarde, F. (2006). How to sum up your social marketing strategy. *Social Marketing Quarterly, 12*(4), 65-69.

Larsson, L. S., Champine, D., Hoyt, D., Lin., L., Salois, E., Silvas, S., et al. (2015). Social marketing risk-framing approaches for dental sealants in rural American Indian children. *Public Health Nursing, 32*(6), 662-670. doi: 10.1111/phn.12203

Lee, N. R. & Kotler, P. (2016). *Social marketing: Influencing behaviors for good*. Thousand Oaks, CA: Sage Publications, Inc.

Luca, N. R. & Suggs, L. S. (2010). Strategies for the social marketing mix: A systematic review. *Social Marketing Quarterly, 16*(4), 122-149. doi.org/10.1080/15245004.2010.522767

Marshall, M. J., Petrone, L., Takach, M. J., Sansonetti, S., Wah-Fitta, M., Bagnell-Degos, M., et al. (2007). Make a kit, make a plan, stay informed: using social marketing to change the population's emergency preparedness behavior. *Social Marketing Quarterly, 13*(4), 47-64. doi.org/10.1080/15245000701662549

Opel, D. J., Diekema, D. S., Lee, N. R., & Marcuse, E. K. (2009). Social marketing as a strategy to increase immunization rates. *Archives of Pediatrics and Adolescent Medicine, 163*(5), 432-437.

Quinn, G. P., Ellery, J, Thomas, K. B., & Marshall, R. (2010). Developing a common language for using social marketing: An analysis of public health literature. *Health Marketing Quarterly, 27*(4) 334-353, doi: 10.1080/07359683.2010.519989

Quinn, G. P., Hauser, K., Bell-Ellison, B. A., Rodriguez, N. Y., & Fr´ıas, J. L. (2006). Promoting pre-conceptional use of folic acid to Hispanic women: A social marketing approach. *Maternal and Child Health Journal, 10*(5), 403-412. doi: 10.1007/s10995-006-0074-2

Salmon, S., Turnera, S., Taillieuc, T., Fortiera, J., & Afifia, T. O. (2018). Bullying victimization experiences among middle and high school adolescents: Traditional bullying, discriminatory harassment, and cybervictimization. *Journal of Adolescence 63*, 29-40. doi.org/10.1016/j.adolescence.2017.12.005

Schoon, P. M., Porta, C. M., & Schaffer, M. A. (2019). *Population-based public health clinical manual: The Henry Street model for nurses, 3rd ed*. Indianapolis, IN: Sigma Theta Tau International Society of Nursing.

Slater, M. D., Kelly, K. J., & Thackeray, R. (2006). Segmentation on a shoestring: Health audience segmentation in limited-budget and local social marketing interventions. *Health Promotion Practice, 7*(2), 170-173. doi: 10.1177/1524839906286616

Stead, M., Gordon, R., Angus, K., & McDermott, L. (2007). A systematic review of social marketing effectiveness. *Health Education, 107*(2), 126-191. doi: 10.1108/09654280710731548

Stellefson, M. & Eddy, J. M. (2008). Health education and marketing processes: 2 related methods for achieving health behavior change. *American Journal of Health Behavior, 32*(5), 488-496.

StopBullying.gov. (2017). *Bullying Prevention Training Center: Bullying prevention continuing education course*. Retrieved from https://www.stopbullying.gov/prevention/training-center/index.html

Thackeray, R. (2010). Developing and exchange mindset. *Health Promotion Practice, 11*(5), 618-621. doi: 10.1177/1524839910377591

Thackeray, R. & Neiger, B. L. (2009). A multidirectional communication model: Implications for social marketing practice. *Health Promotion Practice, 10*(2), 171-175. doi: 10.1177/1524839908330729

Thackeray, R., Neiger, B. L., & Hanson, C. L. (2007). Developing a promotional strategy: important questions for social marketing. *Health Promotion Practice, 8*(4), 332-336. doi: 10.1177/1524839907308152

Timmons-Mitchell, J., Levesque, D. A., Harris, L. A., III, Flannery, D. J., & Falcone, T. (2016). Pilot test of StandUp, an online school-based bullying prevention program. *Children & Schools, 38*(2), 71-79.

U.S. Department of Health & Human Services. (2013). A community-based approach to bullying. *StopBullying.gov*. Retrieved from https://www.stopbullying.gov/blog/2013/06/17/community-based-approach-bullying.html

Wright, J. (2011). A history of smoking: From cure to poison. *British Journal of School Nursing, 6*(8), 408-409.
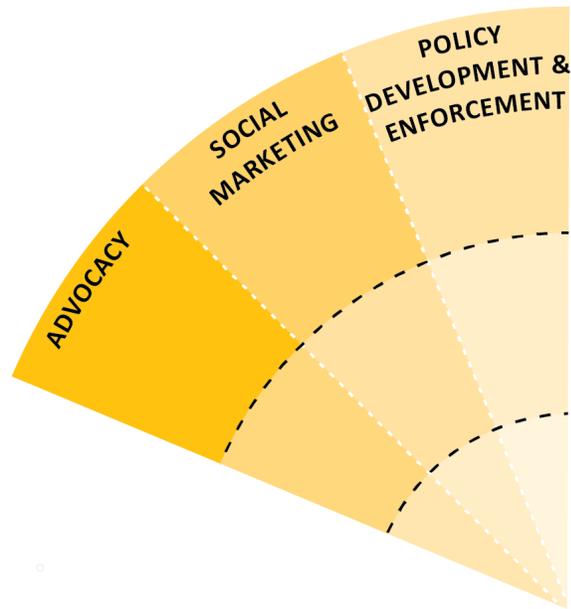
Policy development and enforcement

Policy development places health issues on decision-makers' agendas, establishes a plan of resolution, determines needed resources, and results in laws, rules and regulations, ordinances, and policies. Policy enforcement compels others to comply with the laws, rules, regulations, ordinances, and policies created in conjunction with policy development.

Organizations like public health departments create policies that guide organizational procedures. Federal, state, and local governments enact public policies. The following basic steps focus primarily on the process governmental policymaking; however, the steps are applicable to organizational policy development.

Policy categories include:

- **Constituent policies**, which establish government structure, rules or procedures for how government works, or rules that distribute power (e.g., creating a new government department, such as the Department of Homeland Security)
- **Distributive policies**, which allocate benefits or services to particular segments of the population (e.g., funds allocated to public health departments for emergency preparedness activities)
- **Regulatory policies**, which place restrictions or limitations on the behavior of individuals or groups (e.g., a policy that prohibits smoking in public places)
- **Self-regulatory policies**, which protect or promote the interests of the group (e.g., licensing health care professionals)
- **Redistributive policies**, which shift the allocation of wealth, income, property, or rights among population groups (e.g., a Medicaid program that provides health care services to low-income families, qualified pregnant women and children, and persons with disabilities; Anderson, 2015)

Practice-level examples

Population of interest: Children and adolescents in school.

Problem: Obesity contributes to heart disease, diabetes, and other chronic diseases. Three in five Minnesotans are overweight or obese due to unhealthy eating and a lack of physical activity (Minnesota Department of Health, 2017a). Results from the 2016 Minnesota Student Survey indicated that fifth graders in Minnesota reported eating just one fruit or vegetable a day in the last week (Minnesota Department of Health 2017b). Childhood is an opportune time to establish healthy eating patterns.

Systems level

The Statewide Health Improvement Partnership (SHIP), funded by the Minnesota state legislature in 2008, uses policy, systems, and environmental approaches to reduce chronic disease risk factors, such as obesity and tobacco use/exposure. Independent School District 197 in Dakota County, Minnesota, used SHIP funding to increase student consumption of a variety of fruits and vegetables. School nurses contributed to policy development, adoption, and implementation encouraging students to try new foods and informing parents about the benefits of new fruits and vegetables. Policy decisions led to the following initiatives (Schoon, Schaffer, & Porta, 2019, p. 156):

- During lunch each week, students tasted a less common fruit or vegetable.
- After tasting, students filled out a survey on their interest in adding the new food to the lunch menu.
- The district added foods with favorable ratings to school lunch menus when feasible.

Community level

School nurses continued to collaborate with school administration, teachers, staff, and parents on implementing the policy in the school setting:

- Parents were encouraged to send lunches or snacks that included vegetables and fruits, instead of less healthy alternatives like chips and candy.
- The school district banned sugary drinks from school vending machines, using a policy developed by the Minnesota Department of Health (Schoon et al., 2019).

Individual/family level

A school nurse noted that in several classrooms, parents sent sugary snacks with their children for them to share with their classmates. The new school policy discouraged this practice. The school nurse worked with classroom teachers to determine the best way to communicate and enforce the change in school policy (Schoon et al., 2019).

Relationship with other interventions

Since policy development and enforcement brings health issues to the attention of decision-makers, and provides technical assistance for changing laws, rules, regulations, ordinances, and policies, it frequently pairs with other interventions operating predominantly at the community or systems practice levels, such as **collaboration**, **coalition-building**, and **community organizing**. **Advocacy** frequently co-intervenes at the systems level. In contagious disease outbreaks, policy development and enforcement frequently pairs with **surveillance**, **disease and health event investigation**, **screening**, **outreach**, **case-finding**, **referral and follow-up**, and **case management**.

At the individual/family level, policy development often pairs with **health teaching**, **counseling**, **consultation**, **case management**, and/or **advocacy**.

Basic steps

The following steps are adapted from Anderson (2015) and Edelstein, Gallagher, Hansen, Ebeling, & Turner (2010):

1. Identify the problem and set the policy agenda

Identifying and assess a problem receiving the attention of public officials. Not all problems identified move forward and are placed on a policy agenda.

Questions to explore include:

- What is the need, current issue, or problem?
- Is there a legal mandate? If so, what is it?

- What will the new initiative address?
- What are the demographics of the community of interest?
- Does data from federal, state, and local levels consistently identify a need, issue, or problem?
- What potential and actual disparities exist?
- Is a cultural assessment of the target group available? If not, begin one.
- What are the social norms of the community of interest?
- Is there an interest in change? Who might support and oppose the change?
- What resources are available (internal and external)?
- Who are the stakeholders? What are the local, state, and federal laws that need to be addressed?
- Who are the partners of interest?
- What are the existing policies?
- How have other policies moved through the adoption process?
- What is the membership composition of the governing body's board (Edelstein et al., 2010, p. 8)?

2. Formulate the policy

Develop alternative courses of action or options for dealing with the problem.

Questions to explore include:

- Who participates in formulating the policy?
- How are alternatives for dealing with the problem developed?
- What are the conflicts in developing policy proposals?
- What are the goals?
- What resources are available, including financial needs?
- What is the timeline?

3. Adopt the policy

Support must legitimize or authorize the policy to be adopted.

The legislative, executive, or judicial branches adopt policies. At the national and state levels, health policy adoption requires majority approval by a legislature.

Consider the following questions:

- How is the policy alternative adopted or enacted?
- What are the budget and funding requirements that must be met for the policy to be adopted?
- Who are the adopters?
- What is the content of the adopted policy?
- Are hearings offered to seek input from stakeholders?

4. Implement and enforce the policy

Implementation entails putting the policy into effect. Policymakers develop rules and guidelines, including conditions that require enforcement, and disseminate them to those impacted by the policy.

Explore the following questions:

- Who is involved in implementation?
- Who will monitor implementation?
- Are resources adequate for implementation?
- How well does the intended population follow policy mandates, recommendations, or guidelines?
- How will the policy be enforced?
- How can compliance be encouraged through education about the policy and its rationale?
- How is due process built into policy enforcement?
- What methods are needed to force compliance if the policy's conditions are not met?

5. Evaluate the policy's effectiveness

Evaluation determines whether the policy achieved its goals and/or resulted in any consequences.

Consider the following questions:

- What is the feedback loop for data evaluation (population response, health outcomes)?
- What are the expected and unexpected outcomes?
- Who does the policy advantage or disadvantage?
- What are the consequences of the policy?
- Are new problems identified?
- What are the future health and budget policy implications?
- What is needed to promote policy sustainability?
- Are there any unintended consequences?

Example

A school district developed and implemented a policy to encourage healthy eating.

1. Identify the problem and set the policy agenda

School nurses recognized the contribution of childhood obesity and unhealthy eating habits to future chronic disease. Along with administrators, a school nurse assessed the problem, determined a policy agenda focusing on nutrition, and obtained related funding.

2. Formulate the policy

The school district convened a school wellness team, including students, parents, health teachers, a school nurse, the school food service director, and administrators. The team completed a wellness assessment that identified school policy gaps and recommended evidence-based practices to address the gaps. The team reviewed several model policies, and then drafted its own school wellness policy to address nutrition in the school setting.

3. Adopt the policy

The school wellness team brought the policy to the school board for consideration. The school board adopted the policy. The school wellness team met again and determined steps needed to enact the policy; created a communications plan and an evaluation plan; and applied for funding from federal, state, and local resources.

4. Implement and enforce the policy

The school wellness team disseminated the policy, including communicating about strategies to offer fruits and vegetables to students during school lunches. The food service director offered the students the opportunity to try new fruits and vegetables, and to complete a survey on the food item, after which the food could potentially be added to the school lunch menu. School staff disseminated the policy to parents during school conferences, and school administration included policy information in school media outlets. School staff encouraged students to bring snacks and lunches that included fruits and vegetables. Policy enforcement occurred when sugary drinks were banned from school vending machines.

5. Evaluate the policy's effectiveness

The school wellness team surveyed the school district and reported that the policy was implemented as written. The student survey indicated students' willingness to try new foods. The school wellness team planned to review and update the policy and policy implementation annually.

Key points from evidence

For a description of evidence levels, visit: **Introduction**: Overview of evidence-based practice and related topics.

1. Models of the policymaking process

Policy models or frameworks explain the policymaking process. Examples include:

Policy stream model

All three of the following streams must come together to enact a policy.

- Problem stream: Potential problems that could be addressed by policymakers
- Policy stream: Competing ideas and solutions for addressing policy issue
- Political stream: The political will to advance the policy

Longest's policy cycle model

1. Policy formulation phase: There is a window of opportunity where an agenda comes together—integrating the problem, possible solutions, and the political circumstances—which leads to enacting legislation.
2. Policy implementation phase: The executive branch of the government establishes rules and regulations. Stakeholders have the opportunity to influence adjustments and decisions in this phase.
3. Policy modification phase: Previous decisions may be revisited/modified in response to unintended consequences, circling back to the policy formulation phase.

Level 5 sources:

- Berkowitz, 2012
- Kingdon, 1995
- Longest, 2010
- O'Grady, 2016
- Watson, 2014

2. Effective policy advocacy strategies

Effective policy advocacy strategies include:

- Understand the steps of the legislative process.
- Know the key players who influences proposed legislation.
- Understand how legislative committees work.
- Meet with legislative staff about the policy issue.
- Attend and testify at legislative hearings.
- Communicate with legislators (in person, at day on the hill events, by phone, or via email).

Level 5 source:

- Abood, 2007

3. Responsibilities consistent with policy development and enforcement

In a qualitative study, public health nursing leaders reported the following responsibilities consistent with policy development and enforcement in their leadership role:

- Developing, implementing, and assuring compliance of policy initiatives
- Supervising and leading programs
- Managing fiscal resources
- Collaborating with local and state organizations
- Collecting and analyzing data

- Serving as a legislative liaison within county guidelines
- Overseeing core public health functions

Level 3 source:

- Deschaine & Schaffer, 2003

4. Barriers to development and implementation

Public health nurse (PHN) leaders in local health departments reported encountering the following barriers in policy development and implementation activities:

- Political barriers to getting a public health issue on the agenda at health board or county commissioner meeting
- Lack of public understanding about the policy issue
- Lack of dedicated funding for public health programs and policy mandates
- Resource limitations, like inadequate technology and staffing
- Lack of female representation on county boards

Level 3 source:

- Deschaine & Schaffer, 2003

5. Assessing the policy environment

Questions useful for assessing a policy environment include:

- What is the problem?
- Where is the process?
- How many are affected?
- What possible solutions could be proposed?
- What are the ethical arguments involved?
- At what level is the problem most effectively addressed?
- Who is in a position to make policy decisions?
- What are the obstacles to policy intervention?
- What resources are available?
- How can I get involved?

Level 5 source:

- Malone, 2005

6. Promoting evidence in policy decisions

Consider the following recommendations for promoting use of evidence in policy decisions:

- Analyze and prepare data ahead of time so that evidence can be quickly available when there is a window of opportunity for policy decisions.
- Organize data to clearly and quickly communicate: a) the burden to public health, b) the priority of the policy issue over other issues, c) relevance to voters, d) benefits of intervention, e) a personal and compelling story of how lives are affected, and f) cost estimate of intervention.

- Have systems in place to monitor patterns and trends (public health policy surveillance) and use evidence from a variety of sources to track outcomes.

Level 5 source:

- Brownson, Chriqui, & Stamakatis, 2009

7. Building relationships to promote equality

"Political action requires listening to communities prior to acting as advocate, interpreter of science, or activist" (Carnegie & Kiger, 2009, p. 1982). Public health nurses can contribute to policies that promote equality by building relationships with local government, community organizations, and citizen groups, and by thinking critically about injustice and inequities in the distribution of health resources.

Level 5 source:

- Carnegie & Kiger, 2009

8. Examples of successful policy initiatives

Consider the following examples of policy initiatives that increase awareness about health improvement strategies:

- *Shape Up Somerville: Eat Smart, Play Hard* in Massachusetts, established criteria for Shape Up Somerville-designated restaurants, based on federal National School Lunch Program regulations. Restaurant owners and managers reported a greater awareness of nutrition among staff and customers following the intervention.
- Washington state developed and implemented policies prohibiting smoking in public places following assessment, using broad public support through previous tobacco prevention work, relying on health department leadership to support and defend secondhand smoke policy.
- Health visitors (PHNs) in the United Kingdom worked with preschool leaders on developing and implementing sun safety policies for children. For the intervention group, 88 percent of schools developed and implemented sun safety policies, while there were no changes in sun safety policy in the control group.
- Lexington, Kentucky, enacted smoke-free laws with the support of a coalition of health care providers and systems, tobacco control expertise, a strong legal team, and a deliberate strategy to expose the tobacco industry.

Level 1 source:

- Syson-Nibbs, Peters, & Saul, 2005

Level 3 sources:

- Economos et al., 2009
- Gizzi, Klementiev, Britt, & Cruz-Uribe, 2009

Level 5 source:

- Greathouse, Hahn, Chizimuzo, Warnick, & Riker, 2005

9. Developing evidence-based organizational policies

An evidence-based practice council at a Colorado hospital developed an algorithm to identify steps needed to facilitate development of evidence-based organizational policies. Public health departments may find these steps useful for guiding organizational policies:

a. Select the policy to revise (or identify the need for a new policy).
b. Search for evidence.
c. Conduct a systematic evaluation of the evidence.
d. Compare evidence to the current policy and make a decision.
e. Arrange for stakeholders and/or experts to review the policy.
f. Make revisions based on comments from stakeholders and experts.
g. Obtain signatures of approval.
h. Submit the policy to the policy committee or other decision-makers.
i. Provide staff education as needed.
j. Place the policy on the organization's internal website.

Level 5 source:

▪ Oman, Duran, & Fink, 2008

Wheel notes

## Facilitation and conflict mediation skills

Public health policy development and enforcement seeks to improve population health; limited funding and/or differing perspectives may lead to conflict about which policies are placed on the policy agenda and eventually adopted and implemented, bringing conflict into the decision-making process. Public health nurses use facilitation and conflict mediation skills to support successful policy adoption and implementation.

Local level

Nursing literature focuses on the policy development and enforcement process at the federal and state levels. The same basic steps can be applied to policy development in all levels of government. Public health nurses use their expertise to influence and guide policy development. Public health nurses communicate evidence about effective policies and policy implementation. They have the opportunity to influence policies related to school wellness, worksite wellness, active living, vaccine requirements, protected health information, tobacco, and head lice, among other issues.

References

Abood, S. (2007). Influencing health care in the legislative arena. *The Online Journal of Issues in Nursing, 12*(1), Manuscript 2. doi:10.3912/OJIN.Vol12No01Man02

Anderson, J. E. (2015). *Public policymaking: An introduction*. Stamford, CT: Cengage Learning.

Berkowitz, B. (2012). The policy process. In D. Mason, J. Leavitt, & M. Chaffee (Eds.), *Policy and politics in nursing and health care* (pp. 49-58). St. Louis, MO: Elsevier.

Brownson, R. C., Chriqui, J. F., & Stamakatis, K. A. (2009). Understanding evidence-based public health policy. *American Journal of Public Health, 99*(9), 1576-1583.

Carnegie, E. & Kiger, A. (2009). Being and doing politics: An outdated model or 21st century reality? *Journal of Advanced Nursing 65*(9), 1976-1984. doi: 10.1111/j.1365-2648.2009.05084.x

Deschaine, J. E. & Schaffer, M. A. (2003). Strengthening the role of public health nurse leaders in policy development. *Policy, Politics, & Nursing Practice, 4*(4), 266-274. doi: 10.1177/1527154403258308

Economos, C. D., Folta S. C., Goldberg J., Hudson, D., Collins, J., Baker, Z., et al. (2009). A community-based restaurant initiative to increase availability of healthy menu options in Somerville, Massachusetts: Shape Up Somerville. *Preventing Chronic Disease, 6*(3), 1-8. Retrieved from https://www.cdc.gov/pcd/issues/2009/jul/pdf/08_0165.pdf

Edelstein, J., Gallagher, R., Hansen, J. M., Ebeling, J. M., & Turner, M. J. (2010). *Shaping public health nursing practice: A policy development toolkit*. Rockville, MD: Health Resources and Services Administration.

Gizzi, C., Klementiev, A., Britt, J., & Cruz-Uribe, F. (2009). The Use of assessment in promoting secondhand smoke policy in a local health jurisdiction. *Journal of Public Health Management and Practice, 15*(1), 41-46.

Greathouse, L. W., Hahn, E. J., Chizimuzo, T. C., Warnick, T. A., & Riker, C. A. (2005). *Passing a smoke-free law in a pro-tobacco culture: A multiple streams approach*.

Kindgon, J. W. (1995). *Agendas, alternatives, and public policies*. Boston: Little, Brown.

Longest, B. (2010). *Health policymaking in the United States*. Chicago, IL: Health Administration Press.

Malone, R. E. (2005). Assessing the policy environment. *Policy Politics Nursing Practice, 6*(2), 135-143. doi: 10.1177/1527154405276141

Minnesota Department of Health. (2017a). *The Statewide Health Improvement Partnership*. Retrieved from http://www.health.state.mn.us/ship/

Minnesota Department of Health. (2017b). *Creating better health together by helping kids learn and grow*. Retrieved from http://www.health.state.mn.us/divs/oshii/ship/pdfs/summaries/schools.pdf

O'Grady, E. T. (2016). The Policy Process. In D. J. Mason, D. B. Gardner, F. H. Outlaw, E. T., & O'Grady (Eds), *Policy and politics in nursing and health care* (pp. 61-72). St. Louis, MO: Elsevier, Inc.

Oman, K. S., Duran, C., & Fink, R. (2008). Evidence-based policy and procedures: An algorithm for success. *Journal of Nursing Administration, 38*(1), 47-51.

Schoon, P. M., Porta, C. M., & Schaffer, M. A. (2019). *Population-based public health clinical manual: The Henry Street model for nurses, 3rd ed*. Indianapolis, IN: Sigma Theta Tau International Society of Nursing.

Syson-Nibbs, L., Peters, J., & Saul, C. (2005). Can health visitor intervention change sun safety policies and practice in preschool establishments. A randomized controlled study. *Health Education Journal, 64*(2), 129-141.

Watson, T. (2014). Political science theory for public health practice. *American Journal of Health Education, 45*, 319–321. doi: 10.1080/19325037.2014.949368
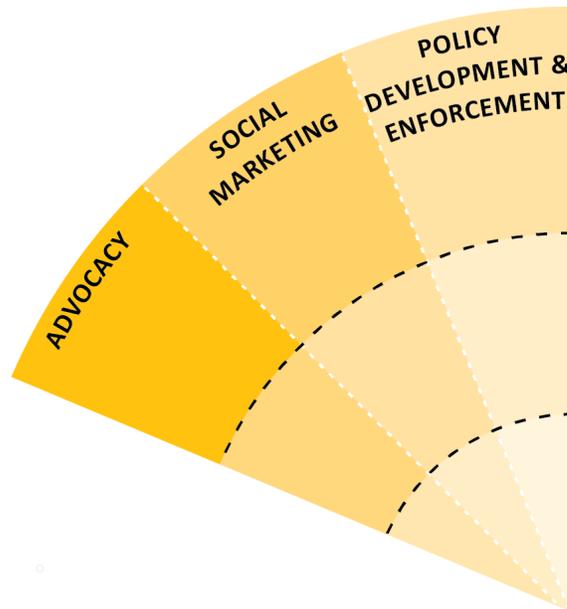
In review

A story:

Lia Roberts is a public health nurse and the Public Health Preparedness Coordinator for Dakota County in Minnesota. To learn about her work in emergency preparedness, watch the video Dakota County Public Health Emergency Preparedness (Dakota County, 2018).

Think about this example of pandemic flu planning. Consider how the yellow wedge interventions of advocacy, social marketing, and policy development and enforcement occur when conducting emergency preparedness activities for pandemic flu.

The Department of Homeland Security website contains many resources for emergency preparedness planning for your analysis of effective advocacy, social marketing, and policy development/enforcement interventions. PHNs access these resources at Ready.gov.

Application questions

Level of practice

1. What levels of practice occur in the story about pandemic flu planning?

Advocacy

2. What advocacy role occurs during pandemic flu planning?
3. Which key stakeholders need to be influenced?
4. What evidence determines which groups are vulnerable or at greatest risk? What health disparities should be considered?
5. Which key individuals and organizations offer support for the pandemic flu plan?

Social marketing

6. Who is the target audience? Is anyone missing?
7. What is the goal for behavior change?
8. What potential barriers, benefits, motivators, cultural considerations, and competition need to be considered?
9. What are the differences in how various community members receive information?
10. What product, price, place, and promotion need to be considered in the marketing mix?

Policy development and enforcement

11. Who participates in the policy development process? Who benefits from the policy? Who might be harmed as an unintended consequence?
12. What assumptions do planners hold about emergency response that may not be shared among all community members? Hint: Various community members have varying levels of trust of people in uniform.
13. What resources are available for implementing the pandemic flu policy response?
14. Although the pandemic flu response occurs here at the local level, what state and federal policies might be applicable to the plan?
15. How might public health nurses be involved in policy enforcement related to the pandemic flu policy?
16. How could a public health nurse evaluate the effectiveness of pandemic flu policy response? (Hint: Think about the numbers reported in the video on emergency preparedness activities in Dakota County).

References

Dakota County [Dakota County Videos]. (2018, May 8). *Dakota County Public Health emergency preparedness* [video file]. Retrieved from https://youtu.be/qTUHoztIFYY