Missouri Public Health Association
Section for Public Health Nursing

Preceptor Orientation Manual

CREATED BY THE

Missouri Public Health Association
Section for Public Health Nursing

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Introduction

The Missouri Public Health Association Section for Public Health Nursing created this handbook to assist preceptors and educators in developing preceptor programs for nursing students and nurses new to the public health profession. The information in this handbook is intended to serve as a guide and should be adapted to meet the needs of the agency, student or employee and the college of nursing. A special thank you to those who assisted with this endeavor.

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> "Each of us has a spark of life inside us and our highest endeavor ought to be to set off the spark in one another."
>
> **—Florence Nightingale**

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Benefits of Public Health Preceptor Education Program Model

The development of a competent future public health nursing workforce is strongly influenced by the nursing students' educational experience. The responsibility for providing realistic, high quality public health nursing education is shared by both education and practice. Utilizing public health nurses as preceptors for students is a successful strategy that increases the education and practice partnership and benefits both the students and the preceptors.

A preceptor education model provides benefits for students, preceptors, public health agencies, schools of nursing and the community.

Preceptor Education Benefits for Students include the following:

- Individual support and encouragement by a practicing professional.
- Increased knowledge about public health and public health nursing as a specialty.
- Creation of relationships that aid in the exchange of information and ideas.
- Working relationships between faculty and affiliated agencies lead to improved access and understanding of community and agency.
- Opportunities to apply theory and practice in public health.

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- Opportunities to apply theory and practice in public health.

Preceptor Education Benefits for Preceptors include the following:

- Formal recognition as a role model through increased opportunity to coach/mentor/teach others.
- Gratification of advancing the practice of public health nursing by sharing knowledge and experiences.
- Networking opportunities and support from other preceptors and faculty.
- Opportunities to expand upon one's own skills and knowledge base.
- Opportunities to influence change in the workplace.

Preceptor Benefits for Public Health Agencies include the following:

- Increased clinical, communication and teaching skills of preceptor contribute to agency goals including accreditation.
- Commitment of preceptor as a valued and knowledgeable member of the organization.
- Recruitment of new public health nurse whose skills are known and recognized.
- Retention of skilled public health nurses who seek to continue their professional development.
- Creation of a relationship for exchange of information and ideas.
- Closer working relationship between faculty and agency leading to improved access and understanding of community and agency by new public health nurses.
- Opportunity to understand public health issues with the fresh perspective of students through special projects, research, and publications.

Preceptor Benefits for Schools of Nursing include the following:

- Creation of a relationship with others for exchange of information and ideas.
- Closer working relationship between faculty and agency leading to improved access and understanding of community and agency.
- Increased interest in public health nursing as a career through special projects, research, and publications.

Preceptor Benefits for Communities include the following:

- Opportunity for community to shape the future of the public health nursing workforce.
- Increase awareness and utilization of public health services to the community.
- Benefits from expertise of public health professionals.

Preceptor Definition, Role, and Qualifications

Definition of Preceptor

The Missouri Code of State Regulations Division 2200 State Board of Nursing defines a preceptor as, "Registered professional nurse who is not employed by the nursing education program but provides clinical supervision for nursing students during select clinical learning experiences as directed by nursing faculty." https://www.sos.mo.gov/cmsimages/adrules/csr/current/20csr/20c2200-2.pdf

The preceptor may be the primary day-to-day agency contact for the student or assist in connecting the student with others in the agency. The agency and the faculty member should jointly decide on the specific arrangements for the preceptor-student relationship.

Preceptors can guide students through experiences available internally and externally, including special projects, meetings, research, or publications. These experiences can be full or partial day experiences. Also, utilizing partnerships within the community helps ensure students receive a broad scope of public health experience.

Preceptor Role

A preceptor's role is to nurture, educate and be a role model. Preceptors guide and enhance the population-based learning of students by providing ideas, information, resources, and feedback. In addition, the preceptor helps students translate theoretical learning to clinical practice. (Wilkes University)

Preceptor Qualifications or Desired Characteristics

- A passion for public health nursing and a desire to share the practice with others.
- A strong knowledge of population-based and community-based public health nursing including community resources, partnerships, and events.
- Experience as a public health nurse can convey the essential components of the public health nursing role.
- Effective verbal and written communication skills, including the ability to listen and ask questions.
- Well organized and dependable: self-managed and autonomous.
- Strong problem-solving skills with an emphasis on critical thinking.
- Willingness to share professional values, beliefs, and skills with students.

Preceptor Responsibilities

Preceptor Responsibilities

- Identify a variety of population-based and community-based learning opportunities for the student's clinical experience with agency administration, student(s), and faculty.
- Collaborate with faculty in selection of specific educational experiences and the amount and type of supervision to be provided by faculty.
- Assure ongoing communication with agency administration, faculty, and students.
- Provide orientation to facility and equipment to student and faculty.
- Be available to students as determined and contact students if unable to attend a scheduled meeting.
- Assist students in developing knowledge and skills for population-based and community-based practice.

- Act as agency and community resource for the faculty.
- Model professional practice.
- Provide feedback regarding student's progress, identify problems, and suggest ways to resolve issues.
- Evaluate the preceptor experience with the student and faculty member (as required by the school of nursing) and agency.

A preceptor's relationship is brief and spans the duration of a course or student rotation. The formal relationship ends with the completion of defined requirements or project. The relationship between preceptor and student is principally professional, more focused and limited in scope. Preceptors work with a small group or one-on-one with individual students and provide evaluation of the student's activities. The preceptor must possess excellent professional and teaching skills. Students benefit from the relationship and the preceptor reaps some rewards, too. Sachdeva, A. (1996). To help students learn, preceptors emphasized the need to know the students' goals and objectives early in the experience, and how to foster development of critical thinking and problem-solving skills. Whittington, K. (2024).

RESOURCES

Sachdeva, A. (1996). A Preceptorship, Mentorship, and the Adult Learner in Medical and Health Science, *MD Journal of Cancer Education*, 11(3).

Wilkes University
https://onlinenursingdegrees.wilkes.edu/blog/preceptors-needed-10-benefits-being-preceptor#:~:text=What%20Is%20a%20Preceptor%3F,theoretical%20learning%20to%20clinical%20practice.

Whittington KD; Montoya J. Navigating the Path to Student Retention: Exploring the impact of mentorship, preceptors, and clinical readiness. J Clin Med Images Case Rep. 2024: 4(1):1645.

Student Responsibilities

Responsibilities of the students include the following:

- Be present and active in learning experiences.
- Assure ongoing communication related to learning needs and/or concerns or problems with preceptor and faculty member promptly.
- Explore a range of population-based and community-based learning opportunities with the preceptor and faculty.
- Fulfill the learning goals, course objectives and assignments.

- If unable to make a scheduled meeting or activity, contact preceptor and faculty member at least 24 hours in advance and/or follows school of nursing policy.
- Follow agency policies and procedures (including policies on confidentiality, documentation, transporting clients, building courtesy, dress code, etc.).
- Dress appropriately for all clinical experiences.
- Treat all agency staff and clients with respect.

Faculty and Nursing Program Responsibilities

Responsibilities of the school of nursing and faculty include the following:

- Communicate with agency and preceptor to determine agreement regarding the number of students, assigned schedule and any necessary contracts.
- Identify learning opportunities for student clinical experience with preceptor, agency administration, and student.
- Provide course objectives, syllabus, and attendance policies/expectations to agency and preceptor.
- Become oriented to the agency policies and procedures, facility, and equipment.
- Collaborate with agency administration and preceptor regarding the amount and type of supervision to be provided by faculty to students.
- Assure ongoing communication with agency administration, preceptor, and student.
- Provide support and feedback to the preceptor and student.
- Provide adequate supervision, guidance, and evaluation of students.
- Provide documentation that the students and faculty have professional liability insurance coverage.
- Advise the agency on the student's emergency medical care plan while assigned to them.
- Assure memorandum of agreement between agency and School of Nursing is in place.
- Evaluate preceptor experience with agency administration and preceptor.
- Report benefits of preceptor program to stakeholders.
- Meet with agency staff before, during and following the education experience to evaluate the learning experience and plan for future experiences.

Agency Administration Responsibilities

Responsibilities of the agency include the following:

- Assure ongoing communication with students, faculty, and preceptor.
- Collaborate with faculty and preceptor to identify a range of learning opportunities for clinical experience.
- Collaborate with faculty and school of nursing regarding the amount and type of supervision to be provided by faculty.
- Provide orientation about policies and programs of the agency to the students and nursing faculty.
- Assure students have been informed about HIPAA confidentiality requirements and have signed confidentiality statements.
- Provide competent and qualified staff to be preceptors.
- Support preceptor and provide resources to accommodate the student
- May provide agreed upon physical space for the faculty members and students to have conferences and workspace.
- Provide regular evaluation of the preceptor program with the faculty member and preceptor.
- Communicate benefits of preceptor program to governing and advisory boards.

State Board of Nursing Chapter 2 - Minimum Standards for Approved Programs for Professional Nursing

20 CSR (Code of State Regulations) 2200-2.085 Preceptors

Purpose

1. Preceptors may be used as role models, mentors, and supervisors of students in professional nursing programs.
    - Preceptors do not replace faculty in the education of the student but serve to assist faculty and the student in achieving designated objectives of a nursing course.
    - Preceptors shall not be utilized in fundamentals of nursing or introductory nursing courses.
    - Preceptors shall supervise no more than two (2) students during any given shift. Supervision by a preceptor means that the preceptor is present and available to the student(s) in the clinical setting.

2. Each nursing program shall have written policies for the use of preceptors which incorporate the criteria listed in this rule.
3. Responsibilities of preceptors shall include:
   - Possess current license to practice as a registered professional nurse with at least one year experience in the area of clinical specialty for which the preceptor is used;
   - Perform the responsibilities as determined by the nursing program; and
   - Provide written documentation to faculty regarding the student's performance in relation to meeting designated course objectives.
4. Responsibilities of the nursing program faculty in regard to utilization of preceptors shall include:
   - Select the preceptor in collaboration with the clinical site;
   - Provide the preceptor with information as to the duties, roles, and responsibilities of the faculty, the student, and the preceptor including the communication processes;
   - Provide the preceptor a copy of the objectives of the course in which the student is enrolled and directions for assisting the student to meet objectives specific to the clinical experience;
   - Assume responsibility for each student's final evaluation and the assigning of a performance rating or grade;
   - Be readily available to students and clinical preceptors during clinical learning experiences; and
   - Periodic meetings with the clinical preceptors and student(s) for the purpose of monitoring and evaluating learning experiences.
     https://www.sos.mo.gov/cmsimages/adrules/csr/current/20csr/20c2200-2.pdf

Essential Concepts for Students

The following concepts should be included in a course in public health nursing and reinforced by discussion and activities with the preceptor:

- population health;*
- Core Functions and Ten Essential Services of Public Health;
- Missouri Foundational for Public Health Services Model;
- use of epidemiology and surveillance systems in a local health agency;
- program planning, outcomes, and evaluation;
- collaboration with community partners;*
- policy development;
- economics and finances;
- roles of the public health nurse in a local agency including how nursing skills and knowledge are used; and
- Social Determinants of Health.*

In addition to the asterisk items above, ANA identifies the following as core concepts of practice of public health nurses to include:

- Ecological Model of Health: macro-level;
- culturally congruent practice: respectful, equitable, and inclusionary;
- levels of prevention;
- ethics;
- social justice; and
- health equity.

*ANA https://openstax.org/books/population-health/pages/3-2-public-community-health-nursing-scope-of-practice-core-competencies-and-function

RESOURCES

Center for Disease Control and Prevention Ten Essential Public Health Services
https://www.cdc.gov/public-health-gateway/php/about/index.html

Missouri's Foundational Public Health Services Model
https://www.healthiermo.org/fphs-model

CDC Social Determinants of Health
https://www.cdc.gov/public-health-gateway/php/about/social-determinants-of-health.html

US Department of Health and Human Services Healthy People 2030
https://health.gov/healthypeople

Examples of Preceptor and Student Activities

Specific activities should be developed between the faculty, preceptor, and student. Emphasis should be placed on population-based practice and identification of interventions on a community and systems level of practice. This is not an exhaustive list of activities.

- Utilize online training.
- Review news stories and identify six public health issues from several sections and describe the impact of each issue on public health. Identify the level of public health prevention. Describe the impact on the community if public health interventions did not occur for the issue.
- Discuss agency philosophy, structure, policies, and procedures with the context of population-based practice.
- Discuss how programs/projects are funded and any related laws or legislation requirements.

- Share what is interesting about public health nursing. Describe a “typical” day.
- Discuss trends and developments in public health you think will affect public health nursing in the future.
- Discuss professional standards of public health nursing.
- Discuss population-based interventions to include individuals, community, and systems.
- Refer to Cornerstones of Public Health Nursing and discuss the differences between public health nursing and other nursing roles.
- Review with students what makes an intervention population based. Discuss how public health nurses work on all three levels of population-based practice (individual/family, community, and systems), and use the 17 public health interventions depicted on the Intervention Wheel.

Examples of population based individual/family activities:

- Conduct a joint home visit with students and discuss individual focus with population-based practice.
- Check with student about his/her discomfort, anxiety, or fears of making home visits or conducting other public health activities.
- Discuss with student strategies to resolve discomfort (i.e., role-play an ideal first encounter, allow time for student to become familiar with any equipment, assessment tolls, etc. To be used, level of supervision preceptor will provide).

Examples of population-based community and systems activities:

- Attend a community meeting with preceptor and discuss the community focus within population-based practice.
- Attend a community meeting with a preceptor and discuss the systems focus with population-based practice.

Schedule time for reflection with students around their activities. Let students in on your thought processes, alert them to potential difficulties and strategies to avoid problems.

Use the following questions to stimulate discussion before an activity:

- What is the most important aspect of the activity?
- How are you planning to approach the activity?
- What might be some barriers, obstacles, other considerations, pros, and cons of various activities?
- Can you think of any other ways to approach this?

Use the following questions to stimulate discussion after an activity:

- What worked about your intervention? What made it work?
- What did not work? What could you or someone else do differently?
- What are some other situations in which these experiences might apply?
- Explore/explain reasons for decisions.

Use stories to illustrate public health nursing interventions from the interactive activity *Wheel of Public Health Interventions*.

Review Missouri's Foundational Public Health Service Model.

RESOURCES

Missouri Board of Nursing
https://www.sos.mo.gov/cmsimages/adrules/csr/current/20csr/20c2200-2.pdf

Public Health Intervention Wheel
https://www.health.state.mn.us/communities/practice/research/phncouncil/wheel.html

Missouri's Foundational Public Health Services Model
https://www.healthiermo.org/fphs-model

https://www.missouristate.edu/OPHI/healthiermo/

Association of Public Health Nurses
https://www.phnurse.org/links

Public Health Foundations Certificate Program
https://www.albany.edu/cphce/professional-development/continuing-education-certificates

What is Public Health? YouTube Video
https://youtu.be/t_eWESXTnic?si=TIlu8ZhAs5F0tO6z

Structure of Missouri's Public Health System

The governmental public health system includes government agencies at the federal, state, and local levels. Public health issues affecting the entire nation are managed by agencies such as the Centers for Disease Control and Prevention (CDC). Issues affecting the state are the responsibility of the Missouri Department of Health and Senior Services (MDHSS). Local issues are managed by local public health agencies (LPHA). Each of the agencies may address the same issue but with a different scope and scale.

The governmental segment of the public health system works with multiple partners including other governmental agencies, nurses, physicians, hospitals, laboratories, schools, childcare providers, social service agencies and faith and civic organizations. Through collaboration among these partners, a public health system exists to serve the residents of the United States and its territories.

Many agencies in the federal government interact with state health departments both directly and indirectly. Some provide funding for projects within states and in local public health agencies. For example, funding for the WIC (Women, Infants, and Children) program is from the US Department of Agriculture. Some of the

money for the emergency preparedness and bioterrorism response is distributed by CDC. Some agencies, like the US Department of Health and Human Services provide guidance for development and implementation of policies such as the Health Insurance Portability and Accountability Act of 1996, (HIPAA) regulations.

Funding for health services that originates at the federal level comes from laws made by Congress. The money is distributed by various agencies to the states to operate specific programs. States may add funds to some programs.

The Missouri Department of Health and Senior Services is one of thirteen executive departments in the Missouri state government. The Department director is a member of the governor's cabinet. The Department has many legal and professional responsibilities including inspection and licensing of facilities, data collection and analysis, emergency response, communicable disease control, public education, and laboratory services.

Other state agencies share public health responsibilities with MDHSS and are an important part of the public health system. For example, the Missouri Department of Natural Resources regulates public water supplies, provides air and water pollution control, and oversees the sale and toxic waste management. The Missouri Department of Public Safety is responsible for highway and water safety programs and emergency management. In addition, the departments of Social Services, Mental Health, Agriculture, and Elementary and Secondary Education share responsibilities for the many health-related programs and activities.

There are 114 LPHAs (local public health agencies) serving every county in the state. State statures outline the responsibility and authority of LPHAs. Most LPHAs were formed under Chapter 205, **Revised Statute of Missouri (RSMo)) § 205.010**, which permits the counties to pass a property tax measure to support local public health. This tax is often called a mill tax. Agencies that do not have a designated mill tax are supported by city and/or county general revenue. LPHAs may have an elected Board of Trustees, county commissioners or city councils who set policies and govern them.

Local public health agencies are autonomous and operate independently of the state and federal public health agencies. However, they are connected to MDHSS through contracts. MDHSS receives funds from CDC and other federal agencies. Much of the federal money and funding from the state general revenue is distributed to LPHAs. The LPHAs deliver most public health services and are the heart of Missouri's public health system. MDHSS provides technical support, laboratory services, a communication network, and other vital services to aid local efforts.

RESOURCES

Directory of Local Public Health Agencies-Missouri
http://health.mo.gov/living/lpha/lphas.php

Map of Missouri's Local Agencies by Governance (local public health agencies)
As of February 2017
http://health.mo.gov/living/lpha/pdf/ColorMapLPHA.pdf

Missouri Department of Health and Senior Services: Overview Page (includes links to department division, organization charts, state boards, public information, etc.)
http://health.mo.gov/about/

Definition of Public Health Nursing

The definition of public health nursing is "the practice of promoting and protecting the health of populations using knowledge from nursing, social, and public health sciences" (American Public Health Association, Public Health Nursing Section, 2013). The focus is on population health with the goal of health promotion and disease prevention.

Public health nursing is a specialty practice within nursing and public health. It focuses on improving population health by emphasizing prevention and attending to multiple determinants of health. Often used interchangeably with community health nursing, this nursing practice includes advocacy, policy development, and planning, which addresses issues of social justice. With a multi-level view of health, public health nursing action occurs through community applications of theory, evidence, and a commitment to health equity. In addition to what is put forward in this definition, public health nursing practice is guided by the American Nurses Association Public Health Nursing: Scope & Standards of Practice and the Quad Council of Public Health Nursing Organization's Core Competencies for Public Health Nurses. (American Public Health Association, 2013.)

https://www.nursingworld.org/practice-policy/workforce/public-health-nursing/#:~:text=The%20American%20Public%20Health%20Association,wellbeing%20of%20patients%20every%20day

Elements of Practice

Key characteristics of practice include:

1. A focus on the health needs of an entire population, including inequities and the unique needs of sub-populations.
2. Assessment of population health using a comprehensive and systematic approach.
3. Attention to multiple determinants of health.
4. An emphasis on primary prevention.
5. Application of interventions at all levels to include individuals, families, communities and the systems that impact their health.

Public health nursing is a systematic process by which:

1. The health and health care needs of a population are assessed to identify subpopulations, families and individuals who would benefit from health promotion or who are at risk of illness, injury, disability, or premature death.
2. A plan for intervention is developed with the community to meet identified needs that consider available resources, the range of activities that contribute to health and the prevention of illness, injury, disability, and premature death.
3. The plan is implemented effectively, efficiently, and equitably.
4. Evaluations are conducted to determine the extent to which the intervention has an impact on the health status of individuals and the population.
5. The results of the process are used to influence and direct the delivery of care, deployment of health resources and the development of local, regional, state, and national health policy and research to promote health and prevent disease.

This systematic process is based on and is consistent with:

- community strengths, needs, and expectations;
- current scientific knowledge;
- available resources;
- accepted criteria and standards of nursing practice;
- agency purpose, philosophy, and objectives; and
- the participation, cooperation and understanding of the population.

Other services and organizations in the community are considered and planning is coordinated to maximize the effective use of resources and enhance outcomes.

The title, "public health nurse" designates a professional nurse with educational preparation in public health and nursing science with a primary focus on population-level outcomes. The primary focus of public health nursing is to promote health and prevent disease for entire population groups. This may include assisting and providing care for individual members of the population. It also includes the identification of individuals who may not request care but those who have health problems that put themselves and others in the community at risk, such as those with infectious diseases. The focus of public health nursing is not on providing direct care to individuals in community settings. Public health nurses support the provision of direct care through a process of evaluation and assessment of the needs of individuals in the context of their population group. Public health nurses work with other providers of care to plan, develop, and support systems and programs in the community to prevent problems and provide access to care.

RESOURCE

American Public Health Association, Public Health Nursing
https://www.apha.org/~/media/files/pdf/membergroups/phn/nursingdefinition.ashx

Cornerstones of Public Health Nursing

Public Health Nursing Practice

- Focuses on the health of the entire population.
- Reflects community priorities and needs.
- Establishes caring relationships with communities, systems, individuals, and families.
- Grounded in social justice, compassion, sensitivity to diversity and respect for the worth of all people, especially the vulnerable.
- Encompasses mental, physical, emotional, social, spiritual, and environmental aspects of health.
- Promotes health through strategies driven by epidemiological evidence.
- Collaborates with community resources to achieve those strategies but can work independently.
- Devices its authority for independent action from the Nurse Practice Act.

Cornerstones of Public Health

Population based	Grounded in social justice	Focus on the greater good	Focus on health promotion and prevention
Does what others cannot or will not	Driven by the science of epidemiology	Organizes community resources	Long-term commitment to the community

Office of Public Health Practice: Linking Public Health Nursing Practice and Education. St. Paul: Minnesota Department of Health. (2005). *Preceptor handbook*. 2nd ed. St. Paul, MN: Minnesota Department of Health.

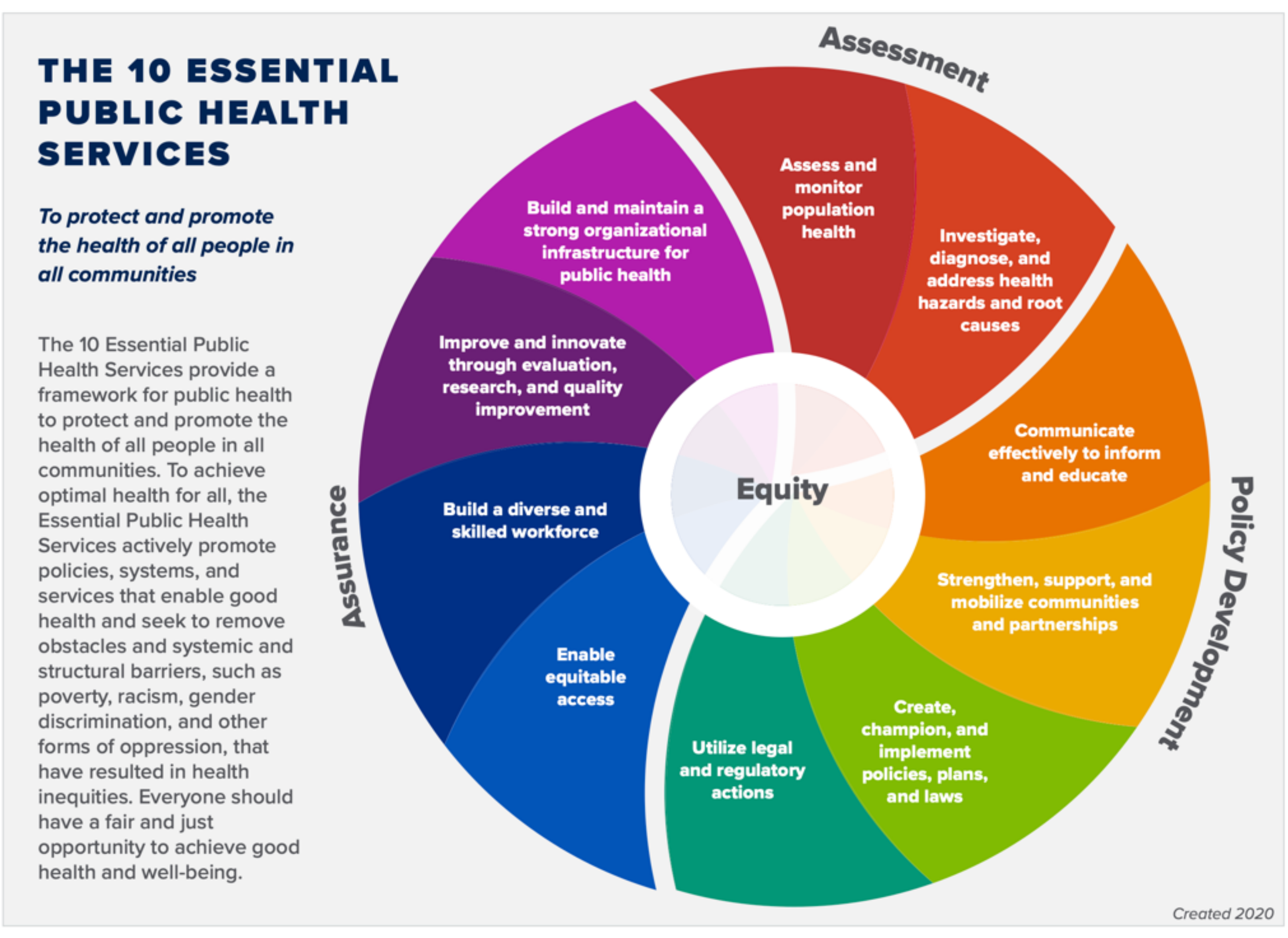
Public Health Core Functions and Ten Essential Services of Public Health

Core public health functions include assessment, policy development, and assurance.

The 10 Essential Public Health Services

To protect and promote the health of all people in all communities The 10 Essential Public Health Services provide a framework for public health to protect and promote the health of all people in all communities. To achieve equity, the Essential Public Health Services actively promote policies, systems, and overall community

conditions that enable optimal health for all and seek to remove systemic and structural barriers that have resulted in health inequities. Such barriers include poverty, racism, gender discrimination, ableism, and other forms of oppression. Everyone should have a fair and just opportunity to achieve optimal health and well-being.



https://phaboard.org/wp-content/uploads/EPHS-Graphic-Image.png

Essential Public Health Service #1: Assess and monitor population health status, factors that influence health, and community needs and assets.

This service includes:

- Maintaining an ongoing understanding of health in the jurisdiction by collecting, monitoring, and analyzing data on health and factors that influence health to identify threats, patterns, and emerging issues, with a particular emphasis on disproportionately affected populations.
- Using data and information to determine the root causes of health disparities and inequities.
- Working with the community to understand health status, needs, assets, key influences, and narrative.
- Using innovative technologies, data collection methods, and data sets.

- Utilizing various methods and technology to interpret and communicate data to diverse audiences.
- Analyzing and using disaggregated data (e.g., by race) to track issues and inform equitable action.
- Engaging community members as experts and key partners.

Essential Service #2: Investigate, diagnose, and address health problems and hazards affecting the population.

This service includes:

- Anticipating, preventing, and mitigating emerging health threats through epidemiologic identification.
- Monitoring real-time health status and identifying patterns to develop strategies to address chronic diseases and injuries.
- Using real-time data to identify and respond to acute outbreaks, emergencies, and other health hazards.
- Using public health laboratory capabilities and modern technology to conduct rapid screening and high-volume testing.
- Analyzing and utilizing inputs from multiple sectors and sources to consider social, economic, and environmental root causes of health status.
- Identifying, analyzing, and distributing information from new, big, and real-time data sources.

Essential Public Health Services #3: Communicate effectively to inform and educate people about health, factors that influence it and how to improve it.

This service includes:

- Developing and disseminating accessible health information and resources, including through collaboration with multi-sector partners.
- Communicating with accuracy and necessary speed.
- Using appropriate communications channels (e.g., social media, peer-to-peer networks, mass media, and other channels) to effectively reach the intended populations.
- Developing and deploying culturally and linguistically appropriate and relevant communications and educational resources, which includes working with stakeholders and influencers in the community to create effective and culturally resonant materials.
- Employing the principles of risk communication, health literacy, and health education to inform the public, when appropriate.
- Actively engaging in two-way communication to build trust with populations served and ensure accuracy and effectiveness of prevention and health promotion strategies.
- Ensuring public health communications and education efforts are asset-based when appropriate and do not reinforce narratives that are damaging to disproportionately affected populations.

Essential Public Health Service #4: Strengthen, support, and mobilize communities and partnerships to improve health.

This service includes:

- Convening and facilitating multisector partnerships and coalitions that include sectors that influence health (e.g., planning, transportation, housing, education, etc.).
- Fostering and building genuine, strengths-based relationships with a diverse group of partners that reflect the community and the population.
- Authentically engaging with community members and organizations to develop public health solutions.
- Learning from, and supporting, existing community partnerships and contributing to public health expertise.

Essential Public Health Service #5: Create champion, and implement policies, plans, and laws that impact health.

This service includes:

- Developing and championing policies, plans, and laws that guide the practice of public health.
- Examining and improving existing policies, plans, and laws to correct historical injustices.
- Ensuring that policies, plans, and laws provide a fair and just opportunity for all to achieve optimal health.
- Providing input into policies, plans, and laws to ensure that health impact is considered.
- Continuously monitoring and developing policies, plans, and laws that improve public health and preparedness and strengthen community resilience.
- Collaborating with all partners, including multi-sector partners, to develop and support policies, plans, and laws.
- Working across partners and with the community to systematically and continuously develop and implement health improvement strategies and plans and evaluate and improve those plans.

Essential Public Health Service #6: Utilize legal and regulatory actions designed to improve and protect the public's health.

This service includes:

- Ensuring that applicable laws are equitably applied to protect the public's health.
- Conducting enforcement activities that may include, but are not limited to sanitary codes, especially in the food industry; full protection of drinking water supplies; and timely follow-up on hazards, preventable injuries, and exposure-related diseases identified in occupational and community settings.
- Licensing and monitoring the quality of healthcare services (e.g., laboratory, nursing homes, and home healthcare).

- Reviewing new drug, biologic, and medical device applications.
- Licensing and credentialing the healthcare workforce.
- Including health considerations in laws from other sectors (e.g., zoning).

Essential Public Health Service #7: Assure an effective system that enables equitable access to the individual services and care needed to be healthy.

This service includes:

- Connecting the population to needed health and social services that support the whole person, including preventive services.
- Ensuring access to high-quality and cost-effective healthcare and social services, including behavioral and mental health services, that are culturally and linguistically appropriate.
- Engaging health delivery systems to assess and address gaps and barriers in accessing needed health services, including behavioral and mental health.
- Addressing and removing barriers to care.
- Building relationships with payers and healthcare providers, including the sharing of data across partners to foster health and well-being.
- Contributing to the development of a competent healthcare workforce.

Essential Public Health Service #8: Build and support a diverse and skilled public health workforce.

This service includes:

- Providing education and training that encompasses a spectrum of public health competencies, including technical, strategic, and leadership skills.
- Ensuring that the public health workforce is the appropriate size to meet the public's needs.
- Building a culturally competent public health workforce and leadership that reflects the community and practices cultural humility.
- Incorporating public health principles in non-public health curricula.
- Cultivating and building active partnerships with academia and other professional training programs and schools to assure community-relevant learning experiences for all learners.
- Promoting a culture of lifelong learning in public health.
- Building a pipeline of future public health practitioners.
- Fostering leadership skills at all levels.

Essential Public Health Service #9: Improve and innovate public health functions through ongoing evaluation, research, and continuous quality improvement.

This service includes:

- Building and fostering a culture of quality in public health organizations and activities.
- Linking public health research with public health practice.
- Using research, evidence, practice-based insights, and other forms of information to inform decision-making.
- Contributing to the evidence base of effective public health practice.
- Evaluating services, policies, plans, and laws continuously to ensure they are contributing to health and not creating undue harm.
- Establishing and using engagement and decision-making structures to work with the community in all stages of research.
- Valuing and using qualitative, quantitative, and lived experience as data and information to inform decision-making.

Essential Public Health Service #10: Build and maintain a strong organizational infrastructure for public health.

This service includes:

- Developing an understanding of the broader organizational infrastructures and roles that support the entire public health system in a jurisdiction (e.g., government agencies, elected officials, and non-governmental organizations).
- Ensuring that appropriate, needed resources are allocated equitably for the public's health.
- Exhibiting effective and ethical leadership, decision-making, and governance.
- Managing financial and human resources effectively.
- Employing communications and strategic planning capacities and skills.
- Having robust information technology services that are current and meet privacy and security standards.
- Being accountable, transparent, and inclusive with all partners and the community in all aspects of practice.

https://phaboard.org/wp-content/uploads/EPHS-English.pdf

Levels of Prevention

Primordial prevention focuses on addressing root causes and social determinants of diseases to prevent the emergence and development of risk factors.

Primary prevention aims to prevent diseases before they occur by implementing intervention and targets well populations.

Secondary prevention focuses on early detections and prompt interventions to prevent the progression of disease. Secondary prevention targets populations that have risk factors in common.

Tertiary prevention manages the consequences of diseases by restoring health and providing rehabilitation. It targets populations who have experienced disease or injury.

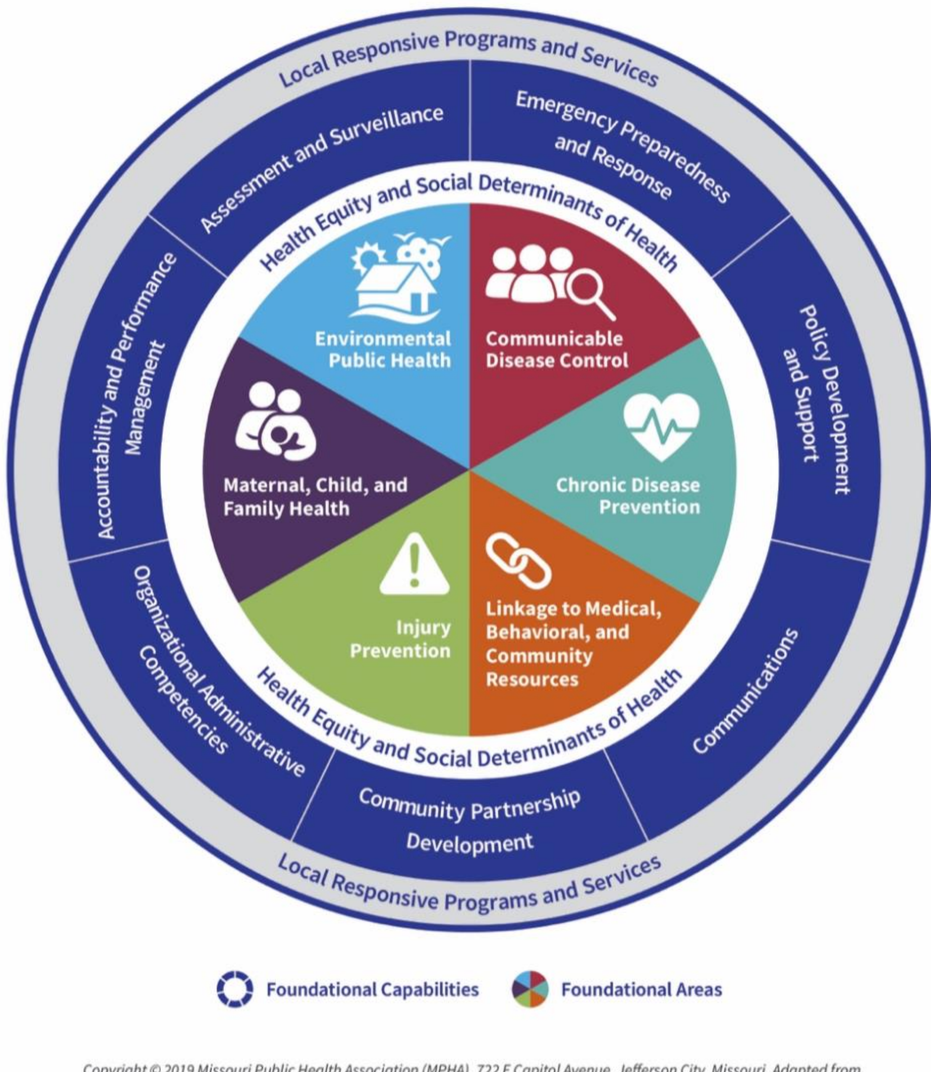
Quaternary prevention aims to protect patients from unnecessary medical interventions.

AbdulRaheem Y. Unveiling the Significance and Challenges of Integrating Prevention Levels in Healthcare Practice. J Prim Care Community Health. 2023 Jan-Dec; 14:21501319231186500. doi: 10.1177/21501319231186500. PMID: 37449436; PMCID: PMC10350749.

Missouri's Foundational Public Health Services Model

Missouri public health leaders developed a minimum set of fundamental services and capabilities to ensure the system delivers equitable opportunities for good health to all residents. The model is built on the Ten Essential Services and Core Public Health Functions. An executive summary of this model can be found at https://www.healthiermo.org/_files/ugd/9bd019_cef4f958102f4c50a9a169bb4c952c3a.pdf?index=true

The model defines seven cross-cutting skills required to assure the delivery of foundational public health services and achieve equitable health outcomes. The model also identifies six interconnected areas of public health expertise best provided by governmental public health agencies. (FPHS).



RESOURCES

Ten Essential Public Health Services
https://phaboard.org/wp-content/uploads/EPHS-English.pdf

Minnesota Department of Health

https://www.health.state.mn.us/communities/practice/research/phncouncil/wheel.html

The Intervention Wheel
https://www.health.state.mn.us/communities/practice/research/phncouncil/docs/PHInterventions.pdf

Public Health Intervention Wheel Handout
https://www.health.state.mn.us/communities/practice/research/phncouncil/docs/PHInterventionsHandout.pdf

Public Health Interventions (population-based), Definitions and Practice Levels
https://www.health.state.mn.us/communities/practice/research/phncouncil/docs/PHInterventionsHandout.pdf

HealthierMO
https://www.healthiermo.org/

Missouri's Foundational Public Health Services Model
https://www.healthiermo.org/fphs-model

Missouri's Foundational Public Health Service Model Transforming the Future of Public Health in Missouri Video for Students
https://ccox.sites.truman.edu/files/articulate_uploads/Healthier_MO_for_Students101/story_html5.html

Quad Council PHN Competencies

The Quad Council of Public Health Nursing Organizations is an alliance of the four national nursing organizations that address public health issues:

- The Association of Community Health Nurse Educators (ACHNE)
- American Nurses Association's Congress on Nursing Practice and Economics (ANA)
- American Public Health Association Public Health Nursing Section (APHA)
- Association of State and Territorial Directors of Nursing (ASTDN)

Along with the Centers for Disease Control and Prevention developed a set of national public health nursing competencies. The competencies are focused on the individual and family level with an overarching population-focused practice. The Practice Levels include Awareness, Knowledge, and Proficiency. Domains include Analytic Assessment Skills, Policy Development/Program Planning Skills, Communication Skills, Cultural Competency Skills, Community Dimensions of Practice Skills, Basic Public Health Sciences Skills, Financial Planning and Management Skills, and Leadership and Systems Thinking Skills.

https://www.cphno.org/wp-content/uploads/2020/08/QCC-C-PHN-COMPETENCIES-Approved_2018.05.04_Final-002.pdf

Domains include Analytic Assessment, Policy Development/Program Planning Skills, Communication Skills, Cultural Competency Skills, community Dimensions of Practice Skills, Basic Public Health Sciences Skills, Financial Planning and Management Skills, Leadership and Systems Thinking Skills.

RESOURCE

Campbell LA, Harmon MJ, Joyce BL, Little SH. Quad Council Coalition community/public health nursing competencies: Building consensus through collaboration. Public Health Nurs. 2020 Jan;37(1):96-112. doi: 10.1111/phn.12666. Epub 2019 Oct 7. PMID: 31589001.

Resource List

Public Health Nursing

Heartland Center for Population Health and Community Systems Development
https://heartlandcenters.com/learning-management-system/

American Nurses Association
https://www.nursingworld.org/

Public Health Interventions Wheel and Population-Based Public Health Nursing Resources and Tools
https://www.health.state.mn.us/communities/practice/research/phncouncil/wheel.html

A Nurse's Guide to the Use of Social Media
https://www.ncsbn.org/public-files/NCSBN_SocialMedia.pdf

Missouri Public Health Association Section for Public Health Nursing
https://www.mopha.org/public-health-nursing-section.php

Association of Public Health Nurses
https://www.phnurse.org/

American Public Health Association Public Health Nursing Section
https://www.apha.org/apha-communities/member-sections/public-health-nursing

Public Health Information

Better Health. Better Missouri Video
https://www.youtube.com/watch?v=nFvpb3N-EX4

#Healthier MO Missouri's Foundational Public Health Services Model
https://www.healthiermo.org/fphs-model

Public Health Works Manual
https://health.mo.gov/living/lpha/phworks/publichealthworks.pdf

Strengthening Missouri's Public Health System
https://health.mo.gov/living/lpha/pdf/strengthph.pdf

Epidemiology Resources
https://health.mo.gov/training/epi/pdf/resourcelist.pdf

Epidemiology training

E is for Epi
https://sph.unc.edu/epid/e-is-for-epidemiology/

I is for Investigation
https://sph.unc.edu/epid/i-is-for-investigation/

P is for Practice
https://sph.unc.edu/epid/p-is-for-practice/

Data and Statistical Reports

Missouri Public Health Information Management System
https://healthapps.dhss.mo.gov/MoPhims/MOPHIMSHome

Community Data Profiles
https://healthapps.dhss.mo.gov/MoPhims/ProfileHome

Websites

Center for Disease Control and Prevention
https://www.cdc.gov/

Missouri Community of Public Health Nursing Practice
https://www.missouristate.edu/OPHI/SPHN/phn-about.htm

Missouri Department of Health and Senior Services
https://health.mo.gov/index.php

Missouri Ethics Commission
https://mec.mo.gov/

Missouri General Assembly
https://www.mo.gov/government/legislative-branch/

Missouri State Board of Professional Registration
https://pr.mo.gov/

Missouri State Government Home Page
https://www.mo.gov/

Missouri Revisor of Statutes
https://revisor.mo.gov/main/Home.aspx

Public Health Organizations

Association of State and Territorial Health Officers (ASTHO)
https://www.astho.org/

Council of State and Territorial Epidemiologists
https://www.cste.org/

National Association of Local Boards of Health (NALBOH)
https://www.nalboh.org/

National Association of City County Health Officers (NACCHO)
https://www.naccho.org/

Missouri Public Health Association (MPHA)
https://www.mopha.org/

Missouri Public Health Institute
https://mophi.org/

Evaluation Tools

Health Insurance Portability and Accountability Act of 1996
https://aspe.hhs.gov/reports/health-insurance-portability-accountability-act-1996

Missouri Institute of Community Health (MICH)
https://www.michweb.org/

Public Health Accreditation Board
https://phaboard.org/

Case Studies

Tuberculosis Case Study

Missouri Department of Health and Senior Services reports 69 cases of tuberculosis disease during 2022.

https://health.mo.gov/living/healthcondiseases/communicable/tuberculosis/pdf/dec22.pdf

Review the following information links for this case study.

Center for Disease Control and Prevention
https://www.cdc.gov/tb/media/pdfs/self_study_module_6-9_introduction.pdf
http://www.cdc.gov/tb/

Missouri Department of Health Senior Services
https://health.mo.gov/living/healthcondiseases/communicable/tuberculosis/index.php

Test, the procedures of the test, reading the test, and indicate positive, please following this link:
https://health.mo.gov/living/healthcondiseases/communicable/tuberculosis/tbmanual/pdf/Chap2.pdf

Data on TB disease and LTBI in counties, please follow this link:
https://health.mo.gov/living/healthcondiseases/communicable/tuberculosis/data.php

In the United States, local public health agencies have a legal responsibility for the prevention and control of Tuberculosis (TB) in their communities.

Question 1. You are the nurse for the walk-in clinic at your local public health department. What is TB? What is the test for Tuberculosis? What would indicate positive or negative? Does having a positive TB test mean that the patient has an active TB infection-how would you explain this to the patient?

Question 2. A 35-year-old gentleman, Sam, comes in to have his TB skin test read by the nurse. You notice on his TB screening tool that he had marked he had never had a TB test done before. You see there is redness and an induration measuring 14 mm. A second nurse verifies 14 mm induration. During your interview, you learn

that he is obtaining the TB test for employment, and he has never been around anyone with TB. He is from Ghana and has been in the United States for 3 years. What makes Sam's TB test result positive?

Question 3. Sam mentions he has had flu-like symptoms for about a month that he wishes would go away because he is getting ready to start a new job. You question him about his symptoms, and he says he is coughing up phlegm, has been running a fever, has night sweats, has lost 20 pounds, and has noticed increasing shortness of breath for the past 1-2 months. He has a pregnant wife and a 2-year-old son at home. Neither has been ill. You educate Sam about the symptoms of TB. What would be your next step?

Question 4. Sam had a chest x-ray completed later that day. You receive the chest x-ray results the next day which indicates abnormalities, showing a cavitary lesion. You have conferred with the physician and verified the TB diagnosis. What is your next step? What is the treatment regimen?

Question 5. Sam was notified by phone the day TB was diagnosed, and he is now quarantined to his home. You plan a home visit the day after his TB diagnosis to perform an in-depth interview and initiate a contact investigation. What personal protective equipment would you need? Who are his contacts? In general, how would you prioritize contacts (high to low) that need testing? What is the infection transmission period?

Question 6. Sam is now anxious to know how long he will be quarantined. What criteria does Sam have to meet before he is considered non-infectious?

Question 7. You give Sam's wife and child TB skin tests, and they return 2 days later to get the test results read by the nurse. Sam's wife, who is pregnant, has an induration of 16 mm, but the 2-year-old son has no induration. What are the next steps for Sam's wife? Are there any additional steps needed for the son?

Question 8. What is the time frame (window) for TB prophylaxis? Do the wife or son need window prophylaxis treatment? Why or why not?

Question 9. The wife's CXR is normal, therefore she needs latent TB (LTBI) treatment. The family is now confused about active and latent TB. What are the differences? In the U. S., do those with active TB have to take treatment? What about those diagnosed with LTBI, do they have to take treatment? What are the treatment regimen options for LTBI?

Question 10. Your client tells you he is the sole income for the family and does not have money for all the treatments needed. What resources are available? Why is it important for Sam and his family to adhere to the treatment regimen? What is direct observation therapy (DOT)?

Question 11. What is the prevalence of TB in the United States (hint: review the Missouri Department of Health and Senior Services or CDC website)?

Answers to Tuberculosis Case Study

> **Question 1.** What is TB? What is the test for Tuberculosis? What would indicate positive or Negative? Does having a positive TB test mean that he has an active TB infection-how would you explain this to him?

Answer:

TB: is a disease caused by bacteria called Mycobacterium tuberculosis. The bacteria usually attack the lungs but can attack any part of the body. The common symptoms of active TB are cough (lasting longer than 3 weeks), pain in the chest, and coughing up phlegm or blood, other symptoms are weight loss, fever, chills, no appetite, fatigue, and seating at night. Inactive TB do not have symptoms of TB disease http://www.cdc.gov/tb/

Test: TB blood test and the TB skin test (include the procedure and reading instruction) https://health.mo.gov/living/healthcondiseases/communicable/tuberculosis/tbmanual/pdf/Chap2.pdf

Indicate Positive: 1) a reaction of 15 or more millimeters of induration 2) a reaction of 10 or more millimeters of induration in recent immigrants (within last 5 years) from high prevalence countries, injection drug users, residents, volunteers of high-risk congregate settings, mycobacteriology laboratory personnel, persons with certain high-risk clinical conditions, infants, children and adolescents exposed to adults at high risk for TB disease, and children younger than 4 years of age 3) a reaction of 5 or more millimeters of induration in HIV-infected persons, recent contacts of infectious TB case, persons with fibrotic changes on chest x-ray consistent with prior TB, organ transplant recipients, and those who are immunosuppressed for other reasons (taking equivalent of 15mg/day or greater or prednisone for 1 month or more, taking Tumor Necrosis Factor – Alpha TNF-x antagonists)
https://health.mo.gov/living/healthcondiseases/communicable/tuberculosis/tbmanual/pdf/Chap2.pdf

Positive TB test: a positive test means having TB germs in the patient's body. A positive test result does not necessarily indicate active TB disease and needs to have other tests to determine if he has active TB disease or inactive TB. The tests include a chest x-ray and a test of the sputum he coughs up. For example, people with inactive TB usually have a positive test. A positive test to a skin test may be caused by BCG vaccine or TB germs https://www.cdc.gov/tb/

> **Question 2.** What makes Sam's TB test result positive?

Answer: According to a reaction of 10 or more millimeters of induration in recent immigrants (within last 5 years) from high prevalence countries is considered positive TB test. Sam is from Ghana and has been in the U.S. for 3 years and TB skin test reading is 14 mm induration. Sam's TB test result was positive.

Question 3. What would be your next step?

Answer: ask him to stay in an isolated room if available or wear a special face mask and order an additional test (e.g., chest x-ray) to confirm active TB disease, such as TB disease of the lungs.

Question 4. What is your next step after you verified the TB diagnosis? What is the treatment regimen?

Answer: **Next Step**: you must report the active TB case to the local or state health department and prevent and control TB germs. Notify the patient, provide patient education, ask him to quarantine at home, always cover mouth with a tissue when coughing, sneezing, or laughing, and initiate a contact investigation promptly.

Treatment Regimen: take medicines exactly as directed by your doctor for 6 months or longer (the best way to take medicines for active TB is by receiving directly observed therapy). Do not miss any doses. Do not stop treatment early.

Question 5. What personal protective equipment would you need? Who are his contacts? In general, how would you prioritize contacts (high to low) that need testing? What is the infection transmission period?

Answer: N95 respirator mask.

Answer: His contacts are his wife, his son, friends, and whoever he is in close contact with.

Answer: In general, the priority order will be his younger son, his wife, friends, and others. It depends on the situation, the highest priority will be given the contact whom Sam closely contacts and spends most of the time with, and the contact is exhibiting symptoms of TB.

Answer: **The infection transmission period is when a case is potentially capable of transmitting.**

Question 6. What criteria does Sam have to meet before he is considered non-infectious?

Answer: The criteria are effective treatment for at least 2 weeks, improved symptoms, and three consecutive negative sputum smears.

Question 7. What are the next steps for Sam's wife? Are there any additional steps needed for the son?

Answer: **For his wife** should have a chest x-ray to determine if inactive TB or active TB.

For his son he is younger than 5 years old. He is at high-risk for developing TB. He needs to start window prophylaxis treatment due to his young age and initial test for TB is negative.

> **Question 8.** What is the time frame (window) for TB prophylaxis? Do the wife or son need window prophylaxis treatment? Why or why not?

Answer: **Window Period** is the time between the contact's last exposure to the case and when a (tuberculin skin test) TST or (interferon-gamma release assay) IGRA can reliably detect infection**.**

Answer: Yes, his son needs window prophylaxis treatment, but his wife needs LTBI treatment not window prophylaxis treatment.

Answer: **Why or why not:** window prophylaxis treatment should be given to high-risk contacts (e.g., children under 5 years old) whose initial test is negative for TB less than 8-10 weeks after their last exposure to someone with TB. That is why his son needs window prophylaxis. His wife's initial test was positive, but the x-ray was normal. That indicates she with LTBI and needs LTBI treatment.

> **Question 9.** What are the differences between latent and active TB? In the U. S., do those with active TB have to take treatment? What about those diagnosed with LTBI, do they have to take treatment? What are the treatment regimen options for LTBI?

Answer: **Differences Between Active TB and Latent TB**

A Person with Active TB Disease

- Has a large amount of active TB germs in their body.
- Has symptoms and feels sick.
- May spread TB germs to others.
- Usually has a positive TB blood test or TB skin test indicating TB infection.
- May have an abnormal chest x-ray, or positive sputum smear or culture.
- Needs treatment for active TB disease.

A Person with Latent TB

- Has a small amount of TB germs in their body that are alive but inactive.
- Has no symptoms and does not feel sick.
- Cannot spread TB germs to others.
- Usually has a positive TB blood test or TB skin test reaction.
- Has a normal chest x-ray and a negative sputum smear.
- Needs to receive LTBI treatment to prevent active TB disease.

https://health.mo.gov/living/healthcondiseases/communicable/tuberculosis/index.php;
https://www.cdc.gov/tb/media/pdfs/What_You_Need_to_Know_About_TB.pdf

Answer: **The Treatment for People with Active TB:** Yes, people with active TB can be treated and must take and finish medicine as prescribed by their doctor. The treatment helps the patient feel better and control the spread of TB germs to prevent others from getting TB.

Answer: **The Treatment for People with LTBI:** Yes, those people diagnosed with LTBI must take treatment to prevent active TB disease.

Answer: **Treatment Options for LTBI:**

<table>
<tr><th>Drug</th><th>Duration</th><th>Frequency</th><th>Total Doses</th></tr>
<tr><td>Isoniazid and Rifapentine</td><td>3 months</td><td>Once weekly</td><td>12</td></tr>
<tr><td>Rifampin</td><td>4 months</td><td>daily</td><td>120</td></tr>
<tr><td>Isoniazid and Rifampin</td><td>3 months</td><td>daily</td><td>90</td></tr>
<tr><td rowspan="4">Isoniazid</td><td rowspan="2">6 months</td><td>Daily</td><td>180</td></tr>
<tr><td>Twice weekly</td><td>52</td></tr>
<tr><td rowspan="2">9 months</td><td>Daily</td><td>270</td></tr>
<tr><td>Twice weekly</td><td>76</td></tr>
</table>

See the dose for different age group, please follow this link:
https://www.cdc.gov/tb/topic/treatment/pdf/LTBITreatmentRegimens.pdf

Question 10. What resources are available? Why is it important for Sam and his family to adhere to the treatment regimen? What is direct observation therapy (DOT)?

Answer: **Resources:** apply DOT, medications, and nursing case management for TB free of charge through Local public health agency.
https://health.mo.gov/living/healthcondiseases/communicable/tuberculosis/tbmanual/pdf/Chap4.pdf

Answer: **The important to Adhere to the Treatment Regimen:** The reasons for adherence treatment for Sam include 1) if he stops taking the medications too soon, he will become sick again; 2) if he does not take the medications correctly, the TB bacteria that are still alive may become resistant to those drugs. For his wife, if she does not adhere to the treatment, she will probably develop active TB disease.

Answer: **DOT:** it is a method to provide directly observed therapy to monitor TB patients taking medications, either in-person or virtual visits. There is eDOT in Missouri, which is the use of electronic technologies to remotely monitor TB patients taking medicines to increase medication adherence. DOT can be provided daily or intermittently on any site that is mutually agreeable

https://health.mo.gov/living/healthcondiseases/communicable/tuberculosis/tbmanual/pdf/Chap9.pdf

Question 11. What is the prevalence of TB in the United States?

Answer: **Prevalence of TB** reported 9633 TB cases in the United States in 2023 and up to 13 million people with LTB.

https://www.cdc.gov/tb-data/?CDC_AAref_Val=https://www.cdc.gov/tb/statistics/default.htm

Rabies Case Study

Missouri Department of Health and Senior Services reports 25 confirmed cases of rabies tested in animals at the State Laboratory during 2024.

https://health.mo.gov/living/healthcondiseases/communicable/rabies/pdf/dec-24.pdf

Use the Missouri Department of Health and Senior Services rabies websites to complete the case study.

http://health.mo.gov/living/healthcondiseases/communicable/rabies/index.php

https://health.mo.gov/living/healthcondiseases/communicable/communicabledisease/cdmanual/pdf/RabiesAnimal.pdf

CDC rabies website
https://www.cdc.gov/rabies/hcp/prevention-recommendations/post-exposure-prophylaxis.html#:~:text=Rabies%20PEP%20consists%20of%20wound,14%20after%20the%20first%20dose

Bats and skunks are the primary sources of rabies in Missouri, but other animals are also found to be rabid each year (such as dogs and cats).

Question 1. What is rabies? What is postexposure prophylaxis (PEP), and when should the person get the PEP? What actions should the person take to prevent rabies after exposure? Is rabies mandatory reportable?

Question 2. A client calls the health department and indicates they have been bitten by a kitten that does not belong to them and wants to know if she is going to get rabies. What is important to know about rabies testing?

Locate the state rabies map and identify the areas and types of animals that have the highest rate of positive rabies currently.

Question 3. What questions should be asked initially: About the animal? About the person who received the bite? Bonus: what about law enforcement involvement, Code Enforcement or Animal Control?

Question 4. The client indicated they did call the police and a report was made. She went to the doctor's office and was instructed to keep the area clean and use antibiotic cream. She was also given a Td vaccination.

The client wants to know more about rabies shots for people. The client does not want to have the animal killed as it is a neighbor girl's pet. What would the appropriate response to the client be?

Question 5. The description of the animal was obtained, and the neighbor's contact information was provided. You call the neighbor who indicates the kitten does not belong to them; it is a stray. When asked whether the kitten is still around, the neighbor indicated she sees it every night when it comes to her house, and she feeds it. What information should the public health nurse provide?

Question 6. What should the neighbor do after the kitten has bitten a person if it is adopted by her?

Answers for Rabies Case Study

> **Question 1.** What is rabies? What is postexposure prophylaxis (PEP), and when should the person get the PEP? What actions should the person take to prevent rabies after exposure? Is rabies a mandatory reportable condition?

Answer: **Rabies:** Rabies is a viral disease of mammals and is transmitted primarily through bites. It is an acute and progressive neuro-encephalitis and nearly always fatal.

Answer: **PEP:** Rabies PEP consists of wound washing, a dose of human rabies immune globulin (HRIG) and rabies vaccine given at the time of the person's first medical visit, and a dose of vaccine given again on days 3, 7, and 14 after the first dose https://www.cdc.gov/rabies/hcp/prevention-recommendations/post-exposure-prophylaxis.html#:~:text=Rabies%20PEP%20consists%20of%20wound,14%20after%20the%20first%20dose

Answer: **Actions to Prevent Rabies After Exposure:** confine the biting animal if possible; immediately and thoroughly wash the wound with soap and water for 10 to 15 minutes; seek medical care to get the HRIG and vaccines.

Answer: **Report:** Rabies in both animals and humans in Missouri is reportable to the Missouri Department of Health and Senior Services.

> **Question 2.** What is important to know about rabies testing?

Answer: **Important Information about Rabies Testing Rabies:** Rabies testing in humans must be reported to Missouri State Health Department and CDC. Rabies testing requires that animals be euthanized, and no approved methods for antemortem rabies testing of animals. Testing is accomplished at the State Public Health Laboratory in Jefferson City. The head of the suspect animal is removed by a veterinarian, placed in a specially designed shipping container, and transported via contracted courier to the State Public Health Laboratory without charge. The result of rabies is typically available within 24 to 72 hours after an animal is euthanized. https://health.mo.gov/living/healthcondiseases/communicable/rabies/index.php

https://www.cdc.gov/rabies/php/laboratories/diagnostic.html#:~:text=Rabies%20testing%20requires%20that%20the,after%20an%20animal%20is%20euthanized

Question 3. What questions should be asked initially: About the animal? About the person who received the bite? Bonus: what about law enforcement, code enforcement or animal control involvement?

Answer: **About the Animal:** The question should be, what kind of animal bit you? Was the animal provoked or unprovoked? Did the animal have unusual behavior before it bit you? Was the animal appropriately vaccinated? Does the animal bite other people before? Has the biting animal been confined? Do you know who the owner of the animal is?

Answer: **About the Person:** When was your last tetanus shot? When and where did the bite happen? Do you have any medical conditions (determine whether the person is immunocompromised)?

Answer: **About Law Enforcement, Code Enforcement or Animal Control:** Did you call the law enforcement, code enforcement or animal control about the bite? **(**This protects other people who may contact it). The law enforcement may need to investigate the cause of the incident. If it is a stray, it may not have a rabies vaccination and must be quarantined to observe the clinical signs of rabies.

Question 4. What would the appropriate response to the client be?

Answer: **Appropriate Response:** First, the kitten needed to be confined if possible. Whether it will be killed depends on whether the kitten belongs to your neighbor, is healthy and vaccinated, and has no symptoms of rabies during the confining or quarantine days. If the kitten exhibits clinical signs of rabies during the quarantine period, the animal must be euthanized and tested for rabies https://health.mo.gov/living/healthcondiseases/communicable/communicabledisease/cdmanual/pdf/RabiesAnimal.pdf

Question 5. What information should the public health nurse provide?

Answer: **Public Health Nurse Provide Information:** Avoid direct contact with the stray kitten. It may not have been vaccinated against rabies. The nurse provides the local health department of animal control contact information to the neighbor for help capturing the kitten. The kitten bit someone and may be quarantined and tested for rabies.

Question 6. What should the neighbor do after the kitten has bitten a person if it is adopted by her?

Answer: **The Responsibility of the Owner of the Kitten:** As the pet owner, the neighbor should take full responsibility for the kitten's care and well-being, including the up-to-date vaccines against rabies. The neighbor should take responsibility for the accident, appropriately clean the wound, help the person seek medical care, provide proof of vaccines, and contact the local animal control to report the incident. The kitten may be confined for ten days to determine if it is healthy and has no clinical signs of rabies. The neighbor should follow the laws and regulations for protection against rabies. For the laws and regulations, please follow this link: https://health.mo.gov/living/healthcondiseases/communicable/rabies/lrm.php

Communicable Disease Case Study

The Missouri Viral Hepatitis Epidemiological Profile 2017-2021 data indicate the number of chronic Hepatitis C reported cases in 2021 was 3,006 cases.

https://health.mo.gov/data/hivstdaids/pdf/2021-mo-profile.pdf

Shigellosis information, please follow these links below:

MO Department of Health and Senior Services Communicable Disease Investigation Reference Manual
https://health.mo.gov/living/healthcondiseases/communicable/communicabledisease/cdmanual/index.php

Verify most recent case definition with CDC National Notifiable Diseases Surveillance System (NNDSS)
https://ndc.services.cdc.gov/

Listing of Reportable Conditions in Missouri:
https://health.mo.gov/living/healthcondiseases/communicable/communicabledisease/pdf/reportablediseaseli st1.pdf

Hepatitis C information, please follow the links below:
https://health.mo.gov/living/healthcondiseases/communicable/hepatitisc/index.php

https://www.cdc.gov/hepatitis-c/

https://www.cdc.gov/hepatitis-c/public-resources/index.html

Question 1. There has been a case of shigellosis reported in a local day care. When does this need to be reported to the state and within what time frame? What is Shigellosis? What employee education and parent education do you provide to the day care?

Question 2. A client comes into the health department and has been watching the recent television commercials about Hepatitis C. What information will the public health nurse provide to the client? Include risk

factors, signs and symptoms, testing, and treatment. What is important for healthcare providers to know when working with these clients?

Answers for the Communicable Disease Case Study

> **Question 1.** When does this need to be reported to the state and within what time frame? What is Shigellosis? What employee education and parent education do you provide to the day care?

Answer: **Shigellosis:** It is a shigella infection that affects the intestine. Most people with shigellosis develop an acute onset of diarrhea, bloody diarrhea, fever, stomach cramps, and sometimes nausea or vomiting. It is typically self-limiting, lasting an average of 4 to 7 days. Asymptomatic infections occur when these people are still infectious to others. Stools of infected persons can be excreted in feces for one to four weeks in persons without antimicrobial therapy.

Answer: **Report Time Frame:** Shigellosis must be reported to the local health authority or the Department of Health and Senior Services within one calendar day of first knowledge or suspicion https://health.mo.gov/living/healthcondiseases/communicable/communicabledisease/cdmanual/pdf/Shigella.pdf

Answer: **Education:**

1. Emphasize handwashing, and the local public health agency should coordinate efforts to improve handwashing among the staff, children, and their families.
2. Staff who prepare food should not change diapers or assist children in using the toilet. Food handlers with shigellosis should be excluded from food handling.
3. Everyone who changes the diapers for a child with shigellosis should wash their hands carefully immediately after changing the diapers, and the diapers are disposed of properly in a closed-lid garbage can.
4. Staff should clean and disinfect surfaces and objects regularly.
5. Access to shared water-play areas and contaminated diapers should be eliminated.
6. The day care should avoid new admissions at this time.
7. All staff and children should be excluded from the local day care in which shigellosis has been identified until diarrhea has ceased for 24 hours.
8. Infected persons should refrain from recreational water venues.
9. Contact the Missouri Department of Elementary and Secondary Education Office of Children/Child Care Compliance for an environmental public health specialist to assess the childcare facility.

https://health.mo.gov/living/healthcondiseases/communicable/communicabledisease/cdmanual/pdf/Shigella.pdf

> **Question 2.** What information will the public health nurse provide to the client? Include risk factors, signs and symptoms, testing, and treatment. What is important for healthcare providers to know when working with these clients?

Answer: **Hepatitis C:** It is a liver disease caused by the hepatitis C virus (HCV), including acute hepatitis C (first infected with HCV, may be very mild with few or no symptoms or a serious condition) and chronic hepatitis C (left untreated can cause serious conditions including liver failure, live cancer, and even death).

Answer: **Risk Factors:** Sharing items infected with HCV, infants born to people with HCV infection, health care associated outbreaks, sex with a person infected with HCV, baby boomers, and tattoos or body piercings in unregulated settings. Hepatitis C does not spread by sharing eating utensils, kissing, holding hands, hugging, coughing, sneezing, food, water, or breastfeeding.

Answer: **Signs and Symptoms:** Dark urine or clay-colored stools, feeling tired, fever, joint pain, loss of appetite, nausea, stomach pain, throwing up, yellow skin or eye jaundice, and people with hepatitis C do not have any symptoms.

Answer: **Testing:** Blood test. If you test positive for HCV antibodies, you will be tested for HCV ribonucleic acid to determine if you have an active infection.

Answer: **Treatment:** There is no vaccine available for hepatitis C. Most treatments involve 8 to 12 weeks of oral medications that can cure more than 95% of patients with hepatitis C without side effects.

https://health.mo.gov/living/healthcondiseases/communicable/hepatitisc/index.php

https://www.cdc.gov/hepatitis-c/about/index.html

Answer: **Health Care Providers:** Be aware of the virus's blood-borne transmission and know the prevention methods and screening for hepatitis C (HCV can be transmitted through needlestick injuries). Educate the information to the patients and their families by reviewing hepatitis C public resources website https://www.cdc.gov/hepatitis-c/public-resources/index.html

Sexually Transmitted Disease/Infections Case Study

Center for Disease Control and Prevention reports Missouri was ranked 14th for reported Gonorrhea cases during 2023.

https://www.cdc.gov/sti-statistics/media/pdfs/2024/10/2023-STD-Surveillance-State-Ranking-Tables.pdf

To complete this case study, please review the following websites:

Missouri Department of Health and Senior Services

Sexually Transmitted Infections

https://health.mo.gov/living/healthcondiseases/communicable/stds/index.php

Missouri Minor Consent Laws
https://health.mo.gov/living/families/adolescenthealth/pdf/missouri-minor-consent-laws.pdf#:~:text=Such%20consent%20is%20not%20subject%20to%20disaffirmance,that%20such%20an%20examination%20has%20taken%20place

Guide to Taking a Sexual History
https://www.cdc.gov/sti/hcp/clinical-guidance/taking-a-sexual-history.html

STI Treatment Guidelines
https://www.cdc.gov/std/treatment-guidelines/default.htm

Question 1. You are a nurse working at the walk-in clinic in the health department. Emma Thomas is a 17-year-old female who is requesting to be tested for sexually transmitted infection (STIs). What questions will you ask Emma first?

Question 2. You find out Emma's boyfriend is 21. What concerns do you have? What action, if any, will you take?

Question 3. Can Emma be tested without parental consent?

Question 4. You learn that Emma has had 3 partners in the last month and 5 in the last year. She is having some abnormal discharge that has lasted for two days and burning with urination. What STD testing is available to Emma based on the Missouri State Public Health Lab's criteria?

Question 5. Does your facility offer additional testing options? What would the cost (if any) be for her?

Question 6. Emma decides to be tested for everything. Seven days later, she calls requesting her test results. What do you need to verify to be able to give her test results over the phone?

Question 7. Emma tested positive for chlamydia and gonorrhea. She does not know very much about these diseases. What education can you give her about these?

Question 8. How should she be treated?

Question 9. Can she be treated without parental consent?

Answers for Sexually Transmitted Disease/Infections Case Study

Question 1. What questions will you ask Emma first?

Answer: After verifying the patient's age and gender identity, you may ask a few questions about the patient's sexual health and sexual practices with the five "P" S (Practice, partners, protection from STIs, history of STIs, pregnancy intention). The question should be: "Have you been sexually active recently?" "How many

sexual partners have you had in the last few months and last few years?" "What kind of sexual contact do you have?"

https://www.cdc.gov/sti/hcp/clinical-guidance/taking-a-sexual-history.html

Question 2. You find out Emma's boyfriend is 21. What concerns do you have? What action, if any, will you take?

Answer: You may be concerned the boy is at risk for STIs and needs to be tested and treated. Ask about the partner's risk factors, such as concurrent partners, past sex partners, drug use, or if he has ever had an STI before.

If Emma tested positive (gonorrhea, Chlamydia, syphilis, HIV, and Hep B), you are required to report it to the MDHSS and stop the spread of STIs.

Emma is 17 years old and can consent to sex with anyone 14 years or older based on the Missouri Minor Consent Laws. Please use this link to review the guidelines for reporting sexual abuse or activity based on their different ages.

https://health.mo.gov/living/families/adolescenthealth/pdf/missouri-minor-consent-laws.pdf#:~:text=Such%20consent%20is%20not%20subject%20to%20disaffirmance,that%20such%20an%20examination%20has%20taken%20place

Question 3. Can Emma be tested without parental consent?

Answer: Yes. Emma can be tested without parental consent. In Missouri, minors can be tested and treated for sexually transmitted diseases without parental consent.

https://health.mo.gov/living/families/adolescenthealth/pdf/missouri-minor-consent-laws.pdf#:~:text=Such%20consent%20is%20not%20subject%20to%20disaffirmance,that%20such%20an%20examination%20has%20taken%20place

Question 4. You learn that Emma has had 3 partners in the last month and 5 in the last year. She is having some abnormal discharge that has lasted for two days and burning with urination. What STI testing is available to Emma based on the Missouri State Public Health Lab's criteria?

Answer: Abnormal discharge and burning with urination may be symptoms of gonorrhea or chlamydia.

STI Testing: The State Public Health Laboratory currently performs testing for the following sexually transmitted diseases: chlamydia (urine test), gonorrhea (urine test), HIV (blood), syphilis (blood), and syphilis (cerebrospinal fluid).

https://health.mo.gov/lab/std.php#:~:text=The%20State%20Public%20Health%20Laboratory,Syphilis%20%2D%20Cerebrospinal%20Fluid

> **Question 5.** Does your facility offer additional testing options? What would the cost (if any) be for her?

Answer: Most facilities offer additional testing options, such as hepatitis B for a minimal cost.

> **Question 6.** Emma decides to be tested for everything. Seven days later, she calls requesting her test results. What do you need to verify to be able to give her test results over the phone?

Answer: You cannot give STI test results to patients over the phone in general. HIV results are never given over the phone. The patient should present in person, with a picture I.D. to receive results. However, Emma tested positive for chlamydia and gonorrhea. Some facilities may need the access code given to the patient at the clinic to call for the results. Some facilities may call the patient's private contact number if gonorrhea, chlamydia, or syphilis is positive and verify the patient's identity by asking for full name, date of birth, and a patient I.D. number.

> **Question 7.** Emma tested positive for chlamydia and gonorrhea. She does not know very much about these diseases. What education can you give her about these?

Answer: You should provide and print educational materials about gonorrhea and chlamydia for her, including the signs and symptoms, risk factors, how it spread, prevention, and treatment and recovery.

To print the educational materials, please click this link:

https://health.mo.gov/living/healthcondiseases/communicable/stds/education-materials.php

> **Question 8.** How should she be treated?

Answer: Take all the medicine the healthcare provider gives her. The medication will stop the infection. Return to the healthcare provider if her symptoms continue for more than a few days after receiving treatment. She should wait seven days after finishing all medicine before having sex. She and her sex partners should avoid having sex until they have each completed treatment and their symptoms are gone. She should be retested about three months after treatment of an initial infection.

https://health.mo.gov/living/healthcondiseases/communicable/stds/education-materials.php

Question 9. Can she be treated without parental consent?

Answer: In Missouri, minors can be tested and treated for sexually transmitted infections without parental consent.

Vaccine Preventable Disease Case Studies

According to America's Health Rankings, in Missouri, the percentage of children aged 24 months who received all recommended doses of the vaccines is 68.6% based on value and rank data from 2020-2921 Birth Cohort.

https://www.americashealthrankings.org/explore/measures/Immunize_c/MO

To complete the vaccine preventable disease case studies, please read these links:

Missouri Department of Health and Senior Services immunization schedules
https://health.mo.gov/living/wellness/immunizations/schedules.php

General immunization information https://health.mo.gov/living/wellness/immunizations/

Vaccine for Children Program (free vaccines to children who qualify)
https://health.mo.gov/living/wellness/immunizations/vfc-providers.php

Public Programs and Services (resources for low income or unemployed families)

https://labor.mo.gov/des/unemployed-workers/public-programs

CDC Immunization site for schedules, vaccine information sheets (VIS), and related education
https://www.cdc.gov/vaccines/index.html

Mila Scott

Mila (DOB: 5/20/2023) is a 6-month-old child who presents to the immunization clinic on 12/10/2023 with the following record:

DTaP/Polio/Hib- 7/15/2023; 9/15/2023
HepB-5/20/2023; 9/15/2023
PCV 20- 7/15/2023; 9/15/2023
Rotavirus- 7/15/2023; 9/15/2023

Question 1. What vaccine(s) would be due today?

Question 2. There are two different rotavirus vaccines; Rotarix is a 2-dose vaccine by GSK, and RotaTeq is a 3-dose vaccine from Merck. The record provided does not specify which vaccine was previously given. What should you do?

Question 3. When would Mila need to return? What vaccine(s) would be due?

Question 4. What important information would you need to provide about the vaccines Mila will receive today, (i.e., vaccine side effects)?

Question 5. During Mila's visit today, you find out that her dad recently lost his job. The family now has no insurance, and mom has expressed concern about their current financial situation. What community and state resources could you provide to this family?

Answers for Vaccine Preventable Disease Case Study (6-month-old Mila Scott)

Question 1. What vaccine(s) would be due today?

Answer: DTaP/Polio/Hib (dose 3) and PCV20 (dose 3) can be given today. Some children should get rotavirus (dose 3) at this age (depending on their health status). Hep B (dose 3) can be given at 6 – 18 months. Seasonal vaccines should also be offered. COVID-19 and Flu can be given at 6 months. Depending on the mother's RSV vaccine status, RSV can be given to most neonates and infants < 8 months born during or entering their first RSV season.

https://www.cdc.gov/vaccines/imz-schedules/child-easyread.html

Question 2. There are two different rotavirus vaccines; Rotarix is a 2-dose vaccine by GSK, and RotaTeq is a 3-dose vaccine from Merck. The record provided does not specify which vaccine was previously given. What should you do?

Answer: Both Rotarix and RotaTeq are given at 2 months and 4 months, with RotaTeq adding an additional dose at 6 months. When the vaccination record does not specify which vaccine was given, you should contact the healthcare provider who administered this vaccine.

Question 3. When would Mila need to return? What vaccine(s) would be due?

Answer: Mila needs to return at 12 months of age.

Vaccines: Hib (dose 4) and PCV20 (dose 4) can be given at 12 to 15 months. MMR (dose 1) and Chickenpox (dose 1) can be given 12 to 15 months. Hepatitis A can be given between 12 months to 23 months, and 2 doses must be separated by 6 months.

Question 4. What important information would you need to provide about the vaccines Mila will receive today, (i.e., vaccine side effects)?

Answer: You need to provide the Vaccine Information Statements (VISs). These VIS forms are information sheets produced by the CDC that explain both the benefits and risks of a vaccine to those who are receiving the vaccine, including some common side effects. Federal law requires that healthcare staff provide a VIS to a patient, parent, or legal representative before each dose of certain vaccines. To view the VIS forms https://www.immunize.org/vaccines/vis/about-vis/

Common Side Effects of DTaP: Soreness or swelling where the shot was given, fussiness, feeling tired, fever, loss of appetite, and vomiting. Most side effects are mild to moderate and can last 1- 3 days.

Common Side Effects of PCV20: Feeling drowsy, loss of appetite, sore or swollen arm from the shot, fever, and headache. The most common side effects from PCV 20 are mild and last 1—2 days. However, severe (anaphylactic) allergic reactions may occur after the vaccination. The symptoms include hives, swelling of the face, swelling of the throat, difficulty breathing, a fast heartbeat, dizziness, and weakness. It can be a life-threatening adverse event. Please immediately call 911.

To learn the common side effects of each vaccine:
https://www.cdc.gov/vaccine-safety/vaccines/index.html#toc

Question 5. What community and state resources could you provide to this family?

Answer: **Free Vaccines:** There is no cost for the vaccines given by VFC Program providers to eligible children. Children are eligible to receive free vaccines before their 19th birthday if they are Medicaid-eligible, without health insurance, underinsured, or an American Indian or Alaskan Native. For more info on the VFC program https://health.mo.gov/living/wellness/immunizations/vfc-providers.php

Temporary Assistance: Monthly cash benefit to help families in need cover costs for their children, such as clothing, utilities, and other services. For more info on temporary assistance https://mydss.mo.gov/temporary-assistance

Public Programs and Services – Missouri Department of Labor: Many programs are listed on this website, such as food stamps, free health clinics, childcare assistance, Medicaid, WIC, and others. To find which program you meet and get the support you need https://labor.mo.gov/des/unemployed-workers/public-programs

Mallory Nolan

Common combination vaccines for children

https://www.cdc.gov/vaccines-children/about/combination-vaccines.html

Mallory (DOB: 2/19/2019) is a 4-year-old child who presents to the immunization clinic on 1/08/2024 with the following record:

DTaP/Polio/Hep B- 4/16/19; 7/6/19
DTaP/Polio/Hib- 8/23/19
DTaP- 3/4/20; 6/24/21
Hep B- 2/19/19
Hib- 4/16/19; 7/6/19; 3/4/20
PCV 13- 4/16/19; 7/6/19, 8/23/19; 3/4/20
Rotavirus (RotaTeq) – 4/16/19; 7/6/19; 8/23/19
MMRV- 3/4/20
Hep A- 3/4/20
Flu- 3/4/20

Question 1. What vaccine(s) would be due today?

Question 2. What combination of vaccines are available for kindergarten immunizations? Can any combination of vaccines be used today? Why or why not?

Question 3. Mallory received Proquad (MMR/Varicella) at 1 year, is that dose considered valid? What adverse reaction would you need to be concerned about when administering Proquad as the first dose of MMR/Varicella to children 12-47 months of age?

Question 4. What is the CDC's recommendation for the use of Proquad?

Question 5. Today Mallory received an influenza vaccine, using the current influenza dose guide for children 6 months through 8 years determine if she would need an additional dose this flu season. If so, when would she need to return for that dose?

Answers for Vaccine Preventable Disease Case Study (4-year-old Mallory Nolan)

Question 1. What vaccine(s) would be due today?

Answer: MMRV (dose 2), Polio (dose 4), and DTaP (dose 5) will be given today. The flu vaccine should be given today. The child missed Hep A (dose 2) and got it today.

Note: At least 1 dose of the COVID-19 vaccine for 6 months to 6 years old since the vaccine is available for children.

Question 2. What combination of vaccines are available for kindergarten immunizations? Can any combination of vaccines be used today? Why or why not?

Answer: **Pediarix:** DTaP + Hep B+ IPV (Diphtheria, tetanus, pertussis, hepatitis B, and polio)

Pentacel: DTaP + IPV + Hib (Diphtheria, tetanus, pertussis, polio, and Hib (*Haemophilus influenzae* type b)

Kinrix Quadracel: DTaP + IPV (Diphtheria, tetanus, pertussis, and polio)

Vaxelis: DTaP + IPV +Hib +HepB (Diphtheria, tetanus, pertussis, polio, hepatitis B, and Hib (*Haemophilus influenzae* type b)

ProQuad: MMR + varicella (Measles, mumps, rubella, and varicella)

ProQuad can be given because the child is 4 years old, and this is the second MMRV dose today. The CDC recommended that children under 4 years old should get the first dose of MMR and chickenpox vaccines separately. However, MMRV and flu shot cannot be given at the same time if the flu shot is a live virus vaccine. Kinrix Quadracel can also be given because DTaP is the fifth dose and IPV is the fourth dose today.

https://www.cdc.gov/vaccines-children/about/combination-vaccines.html

> **Question 3.** Mallory received Proquad (MMR/Varicella) at 1 year, is that dose considered valid? What adverse reaction would you need to be concerned about when administering Proquad as the first dose of MMR/Varicella to children 12-47 months of age?

Answer: For the first dose of measles, mumps, rubella, and varicella vaccines at age 12-47 months, either MMR vaccine and varicella vaccine or MMRV vaccine may be used. Healthcare providers should consider the slightly higher risk of a seizure caused by fever after the first short. The febrile seizure is not harmful to children, but it is scary for parents https://www.cdc.gov/vaccines-children/about/combination-vaccines.html

> **Question 4.** What is the CDC's recommendation for the use of Proquad?

Answer: The CDC recommended that children under 4 years old get the first dose of MMR and chickenpox vaccines separately. Compared with use of MMR vaccine and varicella vaccine at the same visit, use of MMRV vaccine results in one fewer injection but is associated with a higher risk for fever and febrile seizures 5-12 days after the first dose among children aged 12-23 months.

https://www.cdc.gov/vaccines-children/about/combination-vaccines.html
https://www.cdc.gov/vaccines/vpd/mmr/hcp/vacopt-faqs-hcp.html

> **Question 5.** Today Mallory received an influenza vaccine, using the current influenza dose guide for children 6 months through 8 years determine if she would need an additional dose this flu season. If so, when would she need to return for that dose?

Answer: Some children 6 months through 8 years old need two doses of flu vaccine this season, including children who have only previously received one dose of flu vaccine, children in this age group getting

vaccinated for the first time, and children whose flu vaccination history is unknown. Mallory needs an additional dose this flu season because she has only previously received one dose of flu vaccine. She received a flu shot today and needs to return for the second dose at least 4 weeks after today.

Jose Rodriguez

Missouri School Immunization Requirement
https://health.mo.gov/living/wellness/immunizations/pdf/2025-school-requirements.pdf

Guidance for Schools
https://health.mo.gov/living/wellness/immunizations/schoolrequirements.php

Guidance for Assessment of Poliovirus Vaccination Status
https://www.cdc.gov/mmwr/volumes/66/wr/mm6601a6.htm

Alternative Languages, CDC Resources
https://www.cdc.gov/vaccines/resources/index.html

Jose (DOB: 9/4/2015) is an 8-year-old male who just arrived in the U.S. He presents to the immunization clinic on 8/10/2024 with the following record from Mexico:

DTaP- 11/8/15; 1/13/16
Poliomyelitis- 11/8/15; 12/15/15; 1/13/16; 6/20/16; 12/4/17
Hep B- 8/6/16
SRP- 9/6/15

Question 1. What vaccine(s) would be due today?

Question 2. You find Jose has received 5 polio vaccines already, based on Missouri school requirements would he need an additional dose? Why or why not?

Question 3. Jose and his family were sent to the clinic from his new school to receive all required immunizations before he could begin school. You find that the family speaks very little English, and you do not have a translator available. What are some resources you can think of to help you communicate with his family?

Question 4. Where would you find Spanish Vaccine information sheets to give to the family?

Question 5. What document would you need to include with his immunization record to allow for school entry?

Question 6. When would Jose need to return for his next set of vaccines? What vaccine(s) would he get on that day?

Question 7. During the visit, you find Jose needs a physical, but you do not have a doctor on staff, and he does not have insurance. What community resources could you provide to help his family get him enrolled in school?

Answers for Vaccine Preventable Disease Case Study (8-year-old Jose Rodriguez)

Question 1. What vaccine(s) would be due today?

Answer: Varicella (dose 1), Hep B (dose 2), MMR (dose 2), Tdap (dose 1), Hep A (dose 1), IPV

Question 2. You find Jose has received 5 polio vaccines already, based on Missouri school requirements would he need an additional dose? Why or why not?

Answer: According to the current ACIP recommendations for routine poliovirus vaccination in the United States, the final dose in the series should be administered on or after the fourth birthday, regardless of the number of previous doses, and should be given ≥6 months after the previous dose. Yes, Jose needs an additional dose. For more information, https://www.cdc.gov/mmwr/volumes/66/wr/mm6601a6.htm

Question 3. Jose and his family were sent to the clinic from his new school to receive all required immunizations before he could begin school. You find that the family speaks very little English, and you do not have a translator available. What are some resources you can think of to help you communicate with his family?

Answer: Contact 800-CDC-INFO (800-232-4636), in English or Spanish, 8 a.m.–8 p.m. ET, Monday through Friday, excluding holidays https://www.cdc.gov/cdc-info/about-us/index.html

Contact Missouri Department of Health and Senior Services

Question 4. Where would you find Spanish Vaccine information sheets to give to the family?

Answer: To find Spanish Vaccine information sheets to give to the family, please go to the Missouri Department of Health Senior Services website to select the language https://health.mo.gov/living/wellness/immunizations/schoolrequirements.php

VIS Translations in many languages https://www.immunize.org/vaccines/vis-translations/spanish/

Question 5. What document would you need to include with his immunization record to allow for school entry?

Answer: According to 2024-2025 Missouri school immunization requirements, students in progress must have an Immunization In-Progress form on file. The child has begun the vaccine series and has an appointment for the next dose. The appointment must be kept, and an updated record provided to the school. If the appointment is not kept, the child is no longer in progress and is noncompliant.
https://health.mo.gov/living/wellness/immunizations/pdf/immp14.pdf

> **Question 6:** When would Jose need to return for his next set of vaccines? What vaccine(s) would he receive on that day?

Answer: According to the Catch-up Immunization Schedule for Children, Jose needs to return for his Hep B (dose 2) on 9/10/2024 based on the minimum interval between dose 1 and dose 2 is 4 weeks. Hep B dose 2 to dose 3 is 8 weeks and at least 16 weeks after the first dose, varicella dose 1 to dose 2 is 3 months. For more information, https://www.cdc.gov/vaccines/hcp/imz-schedules/child-adolescent-notes.html#note-tdap

> **Question 7.** During the visit, you find Jose needs a physical, but you do not have a doctor on staff, and he does not have insurance. What community resources could you provide to help his family?

Answer: Public Programs and Services – Missouri Department of Labor: Many programs are listed on this website, such as food stamps, free health clinics, childcare assistance, Medicaid, WIC, and others. Please click this link https://labor.mo.gov/des/unemployed-workers/public-programs to find which program you meet and get the support you need.

Ryan Johnson

Recommended Immunizations for Children 7–18 Years Old, United States, 2025, please review the following link:
https://www.cdc.gov/vaccines/imz-schedules/adolescent-easyread.html

Ryan (DOB: 8/4/2013) is an 11-year-old male who presents to the immunization clinic on 10/29/2024 with the following immunization record:

DTaP- 10/12/13; 12/20/13; 2/6/14; 8/12/14; 9/17/18
Polio- 10/12/13; 12/20/13; 2/6/14; 9/17/18
Hep B- 8/4/13; 10/12/013; 02/6/14
Hib- 10/12/13; 12/20/13; 02/6/14; 8/12/14
PCV 13- 10/12/13; 12/20/13; 2/6/14; 8/12/14
MMR- 8/12/14; 9/17/18
Varicella- 8/12/14

Question 1. Which vaccine(s) would be due for Ryan today?

Question 2. Ryan's mom, Kathy is unsure if she wants to give him the HPV vaccine based on things she has heard from family and friends and has seen on social media. What education can you provide her about how HPV affects the male population? Why is it important to vaccinate adolescents with this vaccine at an early age?

Question 3. The information you provided helped Kathy agree to the HPV vaccine for her son. What is the recommended HPV schedule for adolescents aged 9-14 years?

Question 4. When would Ryan need to return? What vaccine(s) would be due?

Answers for Vaccine Preventable Disease Case Study (11-year-old Ryan Johnson)

> ### **Question 1.** Which vaccine(s) would be due for Ryan today?

Answer: HPV, Tdap, Meningococcal ACWY, Flu shot, Hep A, and Varicella on the day (10/29/2015) when Ryan presents to the immunization clinic.

He should get the Covid-19 vaccine today since the FDA approved the vaccine for children.

> ### **Question 2.** Ryan's mom, Kathy is unsure if she wants to give him the HPV vaccine based on things she has heard from family and friends and has seen on social media. What education can you provide her about how HPV affects the male population? Why is it important to vaccinate adolescents with this vaccine at an early age?

Answer: HPV is not just affecting the female population. HPV can cause cancer of the penis, anus, and back of the throat in men. HPV vaccination is cancer prevention in men and women.

https://www.cdc.gov/hpv/vaccines/reasons-to-get.html

Reasons to get the vaccine at an early age:

1. Early protection works best.
2. The HPV vaccine protects adolescents early in life before they contact with life-threatening diseases.
3. It is an optimal immune response to the vaccine when administered at an early age.

https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2020/08/human-papillomavirus-vaccination

Question 3. The information you provided helped Kathy agree to the HPV vaccine for her son. What is the recommended HPV schedule for adolescents aged 9-14 years?

Answer: According to the CDC immunization schedule for older children, all children aged 9 to 10 can get the HPV vaccine, and all children aged 11 to 12 should get the vaccine. HPV vaccination is administered as a two-dose series (0, 6-12 months) for most persons who initiate vaccination at ages 9 through 14.

https://www.cdc.gov/vaccines/imz-schedules/adolescent-easyread.html

https://www.cdc.gov/vaccines/vpd/hpv/hcp/administration.html#:~:text=HPV%20vaccination%20is%20administered%20as,years%2C%20and%20for%20immunocompromised%20persons

Question 4. When would Ryan need to return? What vaccine(s) would be due?

Answer: Ryan needs to return for his second dose of HPV and Hep A in 6 months and meningococcal at age 16 as a booster.

Toby Williams

HPV two different schedule for adolescents, please follow this link:

https://www.cdc.gov/vaccines/vpd/hpv/hcp/administration.html#:~:text=HPV%20vaccination%20is%20administered%20as,years%2C%20and%20for%20immunocompromised%20persons

Two different vaccines for meningitis, please follow this link:

https://www.cdc.gov/meningococcal/vaccines/types.html#:~:text=MenACWY%20vaccines,a%20serogroup%20B%20meningococcal%20vaccine

Toby (DOB: 6/1/2008) is a 16-year-old male who presents to the immunization clinic on 11/14/2024 with the following immunization record:

DTaP- 8/7/08; 11/12/08; 2/4/09; 7/10/09; 6/25/13
Tdap- 12/2/20
Polio- 8/7/08; 11/12/08; 7/10/09; 6/25/13
Hep B- 6/2/08; 8/7/08; 2/4/09
Hib- 8/7/08; 11/12/08; 2/4/09; 7/10/09
PCV 13- 8/7/08; 2/4/09; 7/10/09
MMR- 7/10/09; 6/25/13
Varicella- 7/10/09
MCV4- 6/8/22
HPV- 6/8/22
Hep A- 8/15/09; 6/8/22

Question 1. What vaccine(s) are due?

Question 2. Toby's mom, Jennifer asks if all those vaccines are required for school. What education would you provide about recommended verses required vaccines?

Question 3. Toby's mom is confused about why he needs two different vaccines for meningitis. What education should you provide her and Toby?

Question 4. HPV has two different schedules based on an adolescent's age. What are they? Which schedule should Toby be on and why?

Question 5. When would Toby need to return? What vaccine(s) would be due?

Answers for Vaccine Preventable Disease Case Study (16-year-old Toby Williams)

Question 1. What vaccine(s) are due?

Answer: MenACWY booster dose, MenB, Varicella (dose 2), HPV (second dose), and Flu shot can be given today.

Note: COVID-19 is recommended, and it was approved by the FDA.

Question 2. Toby's mom, Jennifer asks if all those vaccines are required for school. What education would you provide about recommended versus required vaccines?

Answer: No. Not all vaccines are required for school.

Missouri School Immunization Requirements Vaccines: Received 0-18 years of age, including Hep B, DTaP, IPV, MMR, Varicella, Tdap, and MCV. To review the school requirements, please click this link: https://health.mo.gov/living/wellness/immunizations/pdf/MOSchoolImmunizationRequirements0-18YearsofAge.pdf

CDC Recommended Vaccines: Help protects against preventable infection. Federal law mandates that healthcare providers must give the vaccine information statements (VISs) to anyone receiving a vaccine. VISs are information sheets produced by the CDC that explain the benefits and risks of a vaccine. Healthcare providers can provide information about vaccines and the diseases they prevent. Please click this link: https://www.cdc.gov/vaccines/by-disease/index.html

Question 3. Toby's mom is confused about why he needs two different vaccines for meningitis. What education should you provide her and Toby?

Answer: The two different vaccines have different protection. Meningococcal ACWY vaccine can help protect against meningococcal disease caused by serogroups A, C, W, and Y. MenB vaccines (known as a serogroup B meningococcal vaccine) can help protect against serogroup B meningococcal disease.

https://www.cdc.gov/vaccines/hcp/vis/vis-statements/mening.html

https://www.cdc.gov/meningococcal/vaccines/types.html#:~:text=MenACWY%20vaccines,a%20serogroup%20B%20meningococcal%20vaccine

> **Question 4.** HPV has two different schedules based on an adolescent's age. What are they? Which schedule should Toby be on and why?

Answer: HPV vaccination is administered as 1) A two-dose series (0, 6-12 months) for most persons who initiate vaccination at ages 9 through 14 years. 2) A three-dose series (0, 1-2, 6 months) for persons who initiate vaccination at ages 15 through 45 years, and for immunocompromised persons.

Toby initiated the vaccine at age 14, and the second dose should be given in 6-12 months after the first dose.

https://www.cdc.gov/vaccines/vpd/hpv/hcp/administration.html#:~:text=HPV%20vaccination%20is%20administered%20as,years%2C%20and%20for%20immunocompromised%20persons

> **Question 5.** When would Toby need to return? What vaccine(s) would be due?

Answer: MenB (second dose) can be administered 6 months after the first dose.

Kathy Weber

For flu vaccine information, https://www.cdc.gov/flu/vaccines/keyfacts.html

For pneumococcal vaccine for adult information, https://www.cdc.gov/mmwr/volumes/72/rr/rr7203a1.htm#recommendationsforuseofpneumococcalvaccinesinadultsaged19%E2%80%9364yearswithcertainunderlyingmedicalconditionsorotherriskfactors

For shingles vaccine information, https://www.cdc.gov/shingles/hcp/vaccine-considerations/index.html#:~:text=For%20patients%20who%20previously%20had,acute%20episode%20of%20herpes%20zoster

For RSV vaccine information for older adults, https://www.cdc.gov/rsv/vaccines/older-adults.html

Kathy (DOB: 4/28/1960) is a 64-year-old female who presents to the immunization clinic on 12/26/2024 with the following record:

TD- 10/15/2014
HepB-6/28/2021; 9/14/2022
Hep A- 11/21/2023

Question 1. What vaccine(s) would be due today?

Question 2. As you are reviewing the vaccinations Kathy is due for today, you learn that she has a history of congestive heart failure and asthma. Based on the Advisory Council for Immunization Prevention (ACIP) adult pneumococcal vaccine recommendations, should she receive a pneumococcal vaccine today? If so, which one? Will she need any additional doses of a pneumococcal vaccine? If so, when?

Question 3. Kathy tells you about a friend who had shingles a few weeks ago and that she would like to get a shingles vaccine today. Should you administer that vaccine? Why or why not? What education would you provide about that vaccine?

Question 4. After reviewing the vaccinations, she can receive today, Kathy is unsure about getting an influenza vaccine. She has read about people getting the flu after getting the vaccine. What information can you provide about the vaccine, the disease, and the idea of the influenza vaccine causing "the flu"?

Answers for Vaccine Preventable Disease Case Study (64-year-old Kathy Weber)

> **Question 1.** What vaccine(s) would be due today?

Answer: Flu, COVID, Td, shingles, Pneumococcal, Hep B (dose 3), and Hep A (dose 2), and RSV should be given to Kathy today.

> **Question 2.** As you are reviewing the vaccinations Kathy is due for today, you learn that she has a history of congestive heart failure and asthma. Based on the Advisory Council for Immunization Prevention (ACIP) adult pneumococcal vaccine recommendations, should she receive a pneumococcal vaccine today? If so, which one? Will she need any additional doses of a pneumococcal vaccine? If so, when?

Answer: Yes, she should receive a pneumococcal vaccine because congestive heart failure and asthma are considered high-risk factors for pneumococcal disease. Based on her immunization record, she has not received any pneumococcal vaccines. She should receive a single dose of PCV20 or PCV15. When PCV15 is used, it should be followed at a ≥1-year interval with a single dose of PPSV23. For more information, https://www.cdc.gov/mmwr/volumes/72/rr/rr7203a1.htm#recommendationsforuseofpneumococcalvaccinesinadultsaged19%E2%80%9364yearswithcertainunderlyingmedicalconditionsorotherriskfactors

Question 3. Kathy also tells you about a friend who had shingles a few weeks ago and she would like to get a shingles vaccine today. Should you administer that vaccine? Why or why not? What education would you provide about that vaccine?

Answer: She can get a shingles vaccine today if she is not experiencing an acute episode of shingles, but it should be injected at a different site than other vaccines received that day.

Contraindications and Precaution: She should not get the shingles vaccine if she is allergic to the vaccine, has had an allergic reaction to a previous dose of the vaccine, currently has an infection, had the chickenpox vaccine, or has moderate or severe acute illness.

For more information, https://www.cdc.gov/shingles/hcp/vaccine-considerations/index.html#:~:text=For%20patients%20who%20previously%20had,acute%20episode%20of%20herpes%20zoster

Question 4. After reviewing the vaccinations, she can receive today, Kathy is unsure about getting an influenza vaccine. She has read about people getting the flu after getting the vaccine. What information can you provide about the vaccine, the disease, and the idea of the influenza vaccine causing "the flu"?

Answer: The flu vaccine cannot cause the flu because the viral components in a flu injection are killed (inactivated), so you cannot get the flu from a flu injection. You may have some minor side effects, including headache, fever, muscle aches, nausea, fatigue, soreness, redness, or swelling at the injection site. It is possible to get the flu even if you have been vaccinated. This can happen if you are exposed to an influenza virus shortly before getting vaccinated or during the period of developing antibodies after getting vaccinated, an influenza virus that is not included in the seasonal flu vaccine, and some people who get vaccinated may still get sick with flu (with reduced the severity).

For more information, https://www.cdc.gov/flu/vaccines/keyfacts.html

Lead Poisoning Case Study

Missouri is the number one lead-producing state in the United States.

To complete this case study, please review these links:

Missouri Department of Health & Senior Services/Lead Poisoning, please click this link: https://health.mo.gov/living/environment/lead/#:~:text=Missouri%20is%20the%20%231%20lead,equal%20to%2010%20%CE%BCg/dL

Missouri Childhood Lead Poisoning Prevention Program

https://health.mo.gov/living/environment/lead/pdf/annual-report-fy2023.pdf

Prevention and Treatment
https://health.mo.gov/living/environment/lead/prevent-treat.php

American Public Health Association/Lead Contamination
https://www.apha.org/topics-and-issues/environmental-health/lead-contamination#:~:text=While%20it%20has%20beneficial%20uses,1978)%20or%20eating%20contaminated%20soil

United State Environmental Protection Agency/Lead
https://www.epa.gov/lead

To Prevent Childhood Lead Poisoning
https://www.cdc.gov/lead-prevention/prevention/index.html

Question 1. You are the nurse at the clinic. A woman brings her 5-year-old son to request a blood lead test. What initial questions will you ask?

Question 2. When you learned that their house was built before 1978. Also, her husband is a smoker and works in the renovation of older homes. What concerns do you have? What materials can you provide?

Question 3. The capillary sampling result indicated the blood lead level is 3.5 ug/dL. What additional test should you do? When should the confirmatory test be completed? The lead level is confirmed by the additional test. What action would you take?

Question 4. The mother did not know the risk of lead poisoning. What treatments for lead poisoning? When should her son return to be tested again? Can the damage be reversed?

Question 5. You learned the child has siblings living in the house. What recommendation will you provide for the siblings?

Question 6. The mother asked how she could identify lead-bearing surfaces in their house. How can she protect her family from exposure to lead?

Answers for Lead Poisoning Case Study

> **Question 1.** You are the nurse at the clinic. A woman brings her 5-year-old son to request a blood lead test. What initial questions will you ask?

Answer: **Initial questions:** When was your house built? Have you recently done renovations? Has a family member in the household been tested for lead poisoning? Have you noticed any symptoms in your son, such as

eating non-food items, abdominal pain, or loss of appetite? Does anyone in the household work in a job that exposes your family to lead? Does your son play in the yard often?

> **Question 2.** When you learned that their house was built before 1978. Her husband is a smoker and works in the renovation of older homes. What concerns do you have? What materials can you provide?

Answer: **Concerns:** There is a very high risk for lead poisoning with the sources of lead exposures (The house was built before 1978 and may contain some lead-based paint, and the father works in the renovation of older homes and smokes exposes the child to lead)

https://health.mo.gov/living/environment/lead/#:~:text=Missouri%20is%20the%20%231%20lead,equal%20to%2010%20%CE%BCg/dL
and https://ajph.aphapublications.org/doi/full/10.2105/AJPH.2011.300161

Educational materials: Provide information about the health effects of lead, lead testing information, sources of lead, publications, lead poisoning, and some lead education videos. You can also print them in different languages.

https://health.mo.gov/living/environment/lead/#:~:text=Missouri%20is%20the%20%231%20lead,equal%20to%2010%20%CE%BCg/dL

> **Question 3.** The capillary sampling result indicated the blood lead level is 3.5 µg/dL. What additional test should you do? When should the confirmatory test be completed? The lead poisoning is confirmed by the additional test. What action would you take?

Answer: **Test:** The capillary results should be confirmed with a venous blood draw if the capillary results are 3.5 µg/dL or greater.

https://health.mo.gov/living/environment/lead/lead-testing.php

The recommended schedule for obtaining a confirmatory venous sample is within 3 months.

https://www.cdc.gov/lead-prevention/hcp/clinical-guidance/index.html#cdc_generic_section_5-table-2

Action: You may require reporting the child's elevated blood lead level to the state health department to monitor lead poisoning cases and identify areas with high risk. Missouri's disease and conditions reporting rule required the reporting of all blood lead test results.

https://health.mo.gov/living/environment/lead/pdf/annual-report-fy2023.pdf

Recommended actions based on different blood lead levels: When the patient's blood lead level is 3.5-19 µg/dL, you may need to obtain an environmental exposure history to identify potential sources of lead, arrange

for an environmental investigation of the home to identify potential sources of lead, check the child's development, ensure the child does not have iron deficiency, discuss the diet, and provide follow-up blood lead level testing at recommended intervals.

https://www.cdc.gov/lead-prevention/hcp/clinical-guidance/index.html

> **Question 4.** The mother did not know the risk of lead poisoning. What treatments for lead poisoning? What treatments for lead poisoning? When should her son return to be tested again? Can the damage be reversed?

Answer: **Treatment:** Eliminate or reduce the lead exposure, hospitalized to receive a medication (chelating agent) if a child's blood lead level is greater than or equal to 45 µg/dL, and provide your child with four to six small nutritious meals (iron-rich foods, vitamin C-rich foods, and calcium-rich foods).

https://health.mo.gov/living/environment/lead/prevent-treat.php

Follow-up testing: The early follow-up testing is in 3 months based on your son's blood lead level of 3.5, and later follow-up testing is in 6-9 months after blood lead level declines.

https://www.cdc.gov/lead-prevention/hcp/clinical-guidance/index.html#cdc_generic_section_5-table-2

But the damage is irreversible.

> **Question 5.** You learned the child has siblings living in the house. What recommendation will you provide for the siblings?

Answer: All siblings of a child with an elevated blood lead level should be tested.

https://health.mo.gov/living/environment/lead/lead-testing.php

> **Question 6.** The mother asked how she could identify lead-bearing surfaces in their house. How can she protect her family from exposure to lead?

Answer: In Missouri, paint chip samples must be performed by a licensed lead-based paint inspector or risk assessor for laboratory analysis to identify lead-bearing surfaces.

https://health.mo.gov/safety/leadlicensing/

Tips for Protection

1. Protect a family from exposure to lead in older homes and buildings, soil, yards, playgrounds, dust, products, drinking water, jobs and hobbies, and folk remedies.
2. Test your home for lead, avoid presenting in housing built before 1978 that is undergoing renovation, have a licensed worker renovate your home, prevent children from playing in bare soil, and run water for 15 to 30 seconds for drinking or cooking.

3. Keep homes clean and dust-free.
4. Eating a diet high in iron, calcium vitamin C.
5. Washing hands frequently.
6. Avoid playing on the grass.
7. Hiring certified professionals to test your house.
8. Wash toys, pacifiers, and bottles frequently.
9. Get your child tested as recommended.
10. Take showers and wash your work clothes separately if you work in a job that exposes lead.

https://health.mo.gov/safety/leadlicensing/

https://www.epa.gov/lead/protect-your-family-sources-lead

https://www.epa.gov/lead/actions-reduce-potential-lead-exposure#Download%20the%20Actions%20to%20Reduce%20Lead%20Exposure%20Infographic

Safe Sleep Module/Case Study

Missouri Child Fatality Review Program reports during 2022 there were 103 infant sleep-related deaths and 77% were related to the infant's sleep environment.

https://safesleep.mo.gov/statistics/

In preparation for completing this module, please visit the Safe to Sleep Campaign on the NIH website. Watch the Safe to Sleep video.

https://www.nichd.nih.gov/sts/news/videos/Pages/default.aspx

A pregnant female enters the health department. Emily Smith is 33 weeks pregnant, unemployed and lives with her boyfriend. She learns about WIC from a friend who recently had a baby. What does WIC stand for? What services does WIC provide? Who is eligible for WIC?

During a WIC appointment, Emily mentions that she does not have money to obtain a crib. She states that the baby was going to sleep with her and her boyfriend in an adult bed. What resources are available that you could offer Emily? What materials could you provide Emily with to share with her family?

After Emily fills out the safe sleep referral form and has left, you notice there are several questions left unanswered. You decide to call Emily to obtain the necessary answers. She then asks you how the safe sleep program works. What do you tell her?

After sending in the referral form at 35 weeks to DHSS, it is approved, and a crib arrives three weeks later. You set up the first assessment visit. Emily decides to come to the health department to pick up the crib. What would you mention about safe sleep?

At the initial visit, Emily tells you she is to be induced in one week. Six weeks later you decide to schedule the follow-up visit at the client's home. During this visit, you notice the client's home appears to be old, paint is peeling, and the thermostat reads 95 degrees. You ask how old the home is, and Emily states she thinks it was built in 1970. You notice a 2-year-old watching television. You also notice the baby is sleeping on his stomach wrapped in a blanket. What would be your next action?

Question 1. What does WIC stand for? What services does WIC provide? Who is eligible for WIC? How do I apply for WIC?

Question 2. What resources are available that you could offer Emily? What materials could you provide Emily with to share with her family? What criteria/requirements for parents to apply for the Safe Cribs for Missouri Program?

Question 3. What do you tell her about the safe sleep program?

Question 4. What are some things you would mention regarding safe sleep?

Question 5. What would be your next action?

Answers for Safe Sleep Case Study

> ### **Question 1.** What does WIC stand for? What services does WIC provide? Who is eligible for WIC? How do I apply for WIC?

Answer: **WIC:** Women, Infants, and Children.

Answer: **WIC Services:** provide supplemental food, health care referrals, nutrition education, breastfeeding promotion, and support to eligible pregnant, new mothers, breastfeeding and postpartum women, infants, and children up to age five.

Answer: **Who is Eligible for WIC:** 1. pregnant women who must live in Missouri. 2. Women breastfeeding an infant up to the infant's first birthday. 3. Postpartum women up to six months after delivery or end of pregnancy. 4. Infants up to their 1st birthday. 5. Children until their 5th birthday. Household income may be no more than 185% of the federal poverty income guidelines.

Check the income guidelines following this link: https://health.mo.gov/living/families/wic/pdf/income-guidelines.pdf

Answer: **Apply for WIC:** contact a WIC local agency, interactive map to find the phone number for the closest agency.

> **Question 2.** What resources are available that you could offer Emily? What materials could you provide Emily with to share with her family? What criteria/requirements for parents to apply for the Safe Cribs for Missouri Program?

Answer: **Resource for Obtaining a Crib**: Missouri Department of Health & Senior Services TEL-LINK – Call 800-835-5465 if in need of a safe crib.

Answer: **Other Recourses:** Safe Sleep resources (Missouri Safe Sleep Program Map, safe cribs programs, Cribs for Kids toolkit & resources, Missouri home visiting, and Children's Trust Fund safe sleep programs) by clicking this link: https://safesleep.mo.gov/resources/

Find safe sleep partners of CTF in Missouri by clicking this link: https://ctf4kids.org/safe-sleep-license-plate-partners/

Answer: **Materials for Emily and her family for Baby's Safe Sleep**: Follow the ABCs principle of Safe Sleep for babies: Alone, Back, Crib for nighttime, nap time, and every time up to age one. Babies should not sleep in an adult bed. Bed Sharing is dangerous. Sharing the same room with parents or caregivers but never sharing the bed. Babies should sleep alone in a safety-approved crib with a firm sleep surface and tight-fitted sheet. (Missouri Safe Sleep Coalition/Children's Trust Fund)

Answer: **Criteria/Requirements to Apply for the Safe Cribs:** be a Missouri resident, 34 weeks gestations to six months postpartum, be eligible for WIC or Medicaid, and have no crib.

> **Question 3.** What do you tell her about the safe sleep program?

Answer: **Safe sleep program:** providing families with safe cribs and education about infant safe sleep to help parents reduce the risk of sleep-related infant death (learn about safe sleep, a safe sleep environment, and safe sleep videos).

Safe Cribs provide free cribs and safe sleep education to low-income families in Missouri https://safesleep.mo.gov/dese-safe-cribs-for-missouri-program/

Children's Trust Fund Safe Sleep Programs: https://ctf4kids.org/safe-sleep-license-plate-partners/

> **Question 4.** What are some things you would mention regarding safe sleep?

Answer: **Mention the Safe Sleep Environment:** Babies sleep alone on their backs, in a crib with a firm sleep surface and tight-fitted sheet to sleep for every sleep. Not share a bed but share the same room with the baby's parents. Remove all soft objects, toys, blankets, pads, and pillows from the sleep area. Avoid smoke exposure, alcohol, and illicit drug use during pregnancy and after birth. Avoid overheating and head covering.

https://ctf4kids.org/public-awareness/awareness-campaigns/safe-crib-safe-sleep/#:~:text=Place%20your%20baby%20alone%20in,or%20in%20a%20car%20seat

Question 5. What would be your next action?

Answer: This is not a safe sleep environment for babies. According to the safe sleep environment information, babies must sleep on their backs, all soft objects (including blankets) must be removed from the sleeping area, babies should avoid overheating. You will educate Emily and their families about the safe sleep environment for the baby while placing the baby on his/her back to sleep, removing the blanket from the sleeping area, setting the idea room temperature between 68 and 72 degrees Fahrenheit, and suggest parents to closely monitor the baby's sleep and the 2-year-old child.

Providing a printed safe sleep handout (print it by clicking the link:
https://www.nichd.nih.gov/sites/default/files/2022-10/NICHD_STS_2022_Handout_English508_0.pdf

Emergency Preparedness Case Study

Ice storms, tornadoes, severe storms, and flooding are common occurrences in Missouri.

To complete this case study, please review the following links:

Disaster and Emergency Planning
https://health.mo.gov/emergencies/

Disasters in Missouri
https://www.mo.gov/safety/disasters/

Office of Emergency Coordination
https://clphs.health.mo.gov/lphs/oec.php

Missouri State Emergency Management Agency
https://sema.dps.mo.gov/about/prepardness.php
https://sema.dps.mo.gov/

Public health emergency preparedness program and guidance
https://www.cdc.gov/readiness/php/phep/index.html

Health care preparedness and response capabilities
https://aspr.hhs.gov/HealthCareReadiness/guidance/Documents/Health-Care-Preparedness-and-Response-Capabilities-for-Health-Care-Coalitions.pdf

Get ready preparedness infographics
https://aphagetready.org/sharing/infographics

Weather safety for all hazards from National Weather Service
https://www.weather.gov/safety

Question 1. The best way to plan is to be proactive to mitigate or avoid an emergency; however, some emergencies are unexpected. Emergency preparedness is the best way to protect people and the community from harm. Consider the following questions: What is emergency preparedness? What can the public health system prepare for emergencies?

Question 2. What are the principles for public health nurses to practice in an emergency or disaster?

Question 3. What can you provide to protect individuals, families, and communities from emergencies? What are some tips and guides for them for emergency preparedness planning? What resources do you have available to those who are affected by a natural disaster or emergency?

Question 4. You are teaching people how to prepare for tornadoes. Some people asked if it is true that tornadoes can always be seen from far away. What should they do before, during, and after tornadoes? What materials can you provide them about tornadoes?

Question 5. You received a call about emergency preparedness from a school nurse. The school nurse asks for the educational materials to educate students and their parents on making emergency plans. Many parents only speak Spanish. What materials can you provide?

Question 6. The school nurse also asked about emergency risk communication skills. Which program can you provide?

Answers for Emergency Preparedness Case Study

> **Question 1.** The best way to plan is to be proactive to mitigate or avoid an emergency; however, some emergencies are unexpected. Emergency preparedness is the best way to protect people and the community from harm. Consider the following questions: What is emergency preparedness? What can the public health system prepare for emergencies?

Answer: **Emergency Preparedness:** The national preparedness goal identifies preparedness, includes prevention (actions to avoid from occurring), protection (actions to safeguard people and property from potential hazards during an emergency), mitigation (measures reduce the chance of an emergency happening, or reduce the damaging effects of unavoidable emergency), response (immediate actions to save lives, protect property and the environment, meet basic human needs, and the execution of emergency plans and actions to support short-term recovery), and recovery (actions return a community to normal conditions).

https://www.ready.gov/sites/default/files/2019-06/fema_icpd_national_strategy.pdf

Public Health System Preparedness: Assess risk, analyze vulnerability, identify and plan for the specific needs of vulnerable populations, train and exercise staff, establish communication networks, regularly conduct drills and exercises, educate the public, establish and monitor the early warning systems, maintain a stockpile of

essential medical supplies, medications, and PPE, collaborate with other agencies, create an emergency response plan, and create post-event recovery planning.

> **Question 2.** What are the principles for public health nurses to practice in an emergency or disaster?

Answer: <u>**Principles**</u>

1. Consist with the scope of public health nursing practice and articulated specifically in those standards and scope.
2. The components of the nursing process align with the National Planning Framework phases of preparedness (prevention, protection, mitigation, response, and recovery).
3. Competencies from public health nursing, disaster nursing, disaster public health, and competencies specific to public health nurses' practice in disaster.
4. Public health nurses bring planning, policy, leadership, and practice expertise to disaster preparedness, response, and recovery.

https://www.naccho.org/uploads/blog/nacchopreparedness/APHN_Role-of-PHN-in-Disaster-PRR_FINALJan14.pdf

> **Question 3.** What can you provide to protect individuals, families, and communities from emergencies? What are some tips and guides for them for emergency preparedness planning?

What resources do you have available to those who are affected by a natural disaster or emergency?

Answer: Plan Tips: Plan and prepare for a particular type of emergency (Tornadoes, severe thunderstorms, severe winter weather, flooding, earthquakes, heat waves, fires, hazardous materials incidents), please click the following links to get detailed preparedness information for each of emergency.

https://www.mo.gov/safety/disasters/

https://www.cdc.gov/natural-disasters/index.html

Ready in 3 Program for Emergency Preparedness: The Missouri Department of Health and Senior Services has developed the Ready in 3 Program to help Missourians prepare and protect themselves and their family in an emergency.

1. Create a plan.
2. Prepare a kit.
3. Listen for information.

To review the necessary steps to plan and prepare each, please use the following link:
https://sema.dps.mo.gov/plan_and_prepare/

A 2024 Guide to Emergency Preparedness

1. Make an emergency plan and practice it (create an evacuation route plan, build an emergency preparedness kit with food, water, medicines, and supplies to last for a few days, and small and large pets also need a plan to stay safe).
2. Stay connected (download the FEMA and Red Cross application on your smartphone, sign up for email alerts from your local authorities and CDC, and get a battery-operated portable radio in the event of a loss of electricity).
3. Prepare your home (secure any loose items, make copies of important documents, and include them in your emergency kit, sign up to receive electronic payment).
4. Consider any special circumstances for you (If you are pregnant, know where to go for prenatal care during an emergency, are you someone with a disability or a caregiver, and consider your needs as a senior).

https://www.usa.gov/features/guide-to-emergency-preparedness#:~:text=It's%20best%20to%20plan%20this,last%20for%20a%20few%20days

Resources: Direct assistance to individuals and families from the American Red Cross, Salvation Army, and United Way 2-1-1. FEMA's individual assistance program provides money or direct assistance to qualifiers. FEMA's Public Assistance Grant Program helps state, local governments, and certain private non-profit organizations. There are many individual assistance resources, including:

1. Low interest loans to property owners from U.S. Small Business Administration.2);
2. General assistance from local agencies (housing and food);
3. Agriculture;
4. Consumer protection;
5. Debris and historic building;
6. Elderly, mental health, and disabilities;
7. Employment;
8. Insurance; and
9. Taxes.

https://sema.dps.mo.gov/recover/assistance_resources.php

The local emergency management agency director is the best source of information and assistance. To contact the local emergency management agency, please use this link https://sema.dps.mo.gov/county/

> **Question 4.** You are teaching people how to prepare for tornadoes. Some people asked if it is true that tornadoes can always be seen from far away. What should they do before, during, and after tornadoes? What materials can you provide them about tornadoes?

Answer: It is false, tornadoes do not always appear as visible funnel clouds. They also can be hidden by heavy rainfall during the day or by darkness at night. You can provide materials about tornadoes.

Tornadoes Myths: https://stormaware.mo.gov/tornado-myths/

Tornado Sirens: https://stormaware.mo.gov/alerts/

Tornado Watch: It means tornadoes are possible. Remain alert for approaching storms. Watch the sky and stay tuned to NOAA Weather Radio, television, and commercial radio for information.

Tornado Warning: It means a tornado has been sighted or indicated by weather radar. Please take shelter immediately.

How to Stay Safe When a Tornado Strike: https://stormaware.mo.gov/when-a-tornado-strikes/ Watch the videos about tornado safety in a house, a mobile home, in a school, and in a place of worship.

Tornado Safety

1. Prepare for a Tornado
2. Be weather-ready
3. Sign up for notifications
4. Create a communications plan
5. Pick a safe room in your home
6. Practice your plan
7. Prepare your home
8. Help your neighbor

During a Tornado

1. Stay weather-ready: Continue to listen for information
2. At your home: Go to your basement or a safe room
3. At your workplace or school: Follow your tornado drill and proceed to the tornado shelter
4. Outside: Seek shelter
5. In a vehicle: Being in a vehicle during a tornado is not safe. The best action is to drive to the closest shelter. If there is no shelter, seek a low-lying area like a ditch.

After Tornado

1. Stay informed
2. Contact your family and loved ones
3. Assess the damage
4. Help your neighbor

https://www.weather.gov/safety/tornado

Use this link to learn safety for all hazards, such as flood safety, winter weather safety, and lightning safety. https://www.weather.gov/safety

> **Question 5.** You received a call about emergency preparedness from a school nurse. The school nurse asks for the educational materials to educate students and their

> parents on making emergency plans. Many parents only speak Spanish. What materials can you provide?

Answer: **Educational Materials for Kids, Teens, Families, Educators, and Organizations**

1. There is specific and tailored information for them with different languages to learn about disasters and get tips to prepare, such as playing games to educate kids
   https://www.ready.gov/sites/default/files/2019-06/fema_icpd_national_strategy.pdf
   https://www.ready.gov/kids
2. Distribute the Family Safety Guide with selected appropriate language to your students and their families.
3. Teachers can use videos in the classrooms to teach students to prepare in advance of emergencies.
4. There is a lesson plan and teacher's guide for educating students on how important it is to prepare.
5. The school nurse can use the Ready in 3 school order form to order Ready in 3 emergency preparedness materials at no charge.
   https://health.mo.gov/emergencies/readyin3/schools.php

> **Question 6**. The school nurse also asked about emergency risk communication skills. Which program can you provide?

Answer: **Program**: CDC's Crisis and Emergency Risk Communication (CERC) program at https://www.cdc.gov/cerc/php/about/index.html provides training, tools, and resources to help health professionals, emergency responders, and the leaders of organizations communicate effectively about risk during emergencies.

Emergency phone numbers:

Emergencies: 9-1-1

Missouri Highway Patrol: (800) 525-5555

Missouri Highway Patrol (cell): *55

Missouri Environmental Emergency Response: (573) 634-2436

Community Health Fair Case Study

Community health fairs can be an effective way to provide healthcare services, education, and community resources to people.

Review the following links to learn more about health promotion and community planning:

Office of Disease Prevention and Health Promotion/screening tests

https://odphp.health.gov/myhealthfinder/doctor-visits/screening-tests

To review community planning for health assessment
https://www.cdc.gov/public-health-gateway/php/public-health-strategy/index.html

To review community planning for health assessment: frameworks and tools
https://www.cdc.gov/public-health-gateway/php/public-health-strategy/public-health-strategies-for-community-health-assessment-models-frameworks-tools.html

To review a template of a health fair planning toolkit
https://www.providencehealthplan.com/-/media/providence/website/pdfs/employers/employer-resources-and-toolkits/health_fair_planning_guide.pdf

Your office has been asked to participate in a community health fair. The health fair will be a large event with many different organizations participating. The organizers expect about 200 people to attend and will include families with children, adults, and seniors. The organizers are not sure what they would like the health department to do – except to do some screening. The organizers mentioned they would like glucose, cholesterol, blood pressure, BMI, and anything else that is available. The organizers would like this screening done without cost to the participants. The event is next month. There will be a planning meeting next week.

Question 1. How would you decide if you can support this request, and what additional information would you need to support this request?

Question 2. If you decide to support this event, how would you decide what type of educational materials you would be able to provide?

Question 3. How would you determine if your department can support the screening request? What health screening tests may be available if you would support the request?

Question 4. If you do support the request, how would you get the results to the participants? How would you handle a symptomatic individual with a dangerously elevated BP?

Question 5. How would you explain your decisions to screen or not to screen at the planning meeting to other participants?

The Answer Sheet for Community Health Fair Case Study

> **Question 1.** How would you decide if you can support this request, and what additional information would you need to support this request?

Answer: Your decision depends on the goal and purpose of the event, available staff and resources, the target population of the event, the community's identified health needs, the proposed activities are appropriate and safe, the collaboration with other community partners,

and the feasibility of the plan. You may need to know the event logistics, the health topics, the vendor/sponsor registration form, potential vendors, and the effective communication between the health partners and the organizers.

> **Question 2.** If you decide to support this event, how would you decide what type of educational materials you would be able to provide?

Answer: After you learn the theme of the event and decide what kind of health screenings or assessments are for the community's specific health needs, you can decide what type of educational materials you would be able to provide. The type of educational materials includes hands-on demonstrations, posters, brochures, posters, videos, or interactive activities. It depends on the participant's educational level and needs.

> **Question 3.** How would you determine if your department can support the screening request? What health screening tests may be available if you would support the request?

Answer: It depends on the community need assessment, the screening request, the necessary resources, and the budget.

Common Health Screening Tests: Vision test, hearing test, mammography, and immunizations screening, biometric screening (height, weight, cholesterol levels, blood sugar, and blood pressure), BMI, and mental health screening.

> **Question 4.** If you do support the request, how would you get the results to the participants? How would you handle a symptomatic individual with a dangerously elevated BP?

Answer: The results will be sent to the patient's primary care physician for follow-up as needed. The health department nurses should assist the patient to find a physician of their choice for follow-up health care.

Handle a Dangerously Elevated BP: Immediately assess the symptoms (headache, chest pain, dizziness, or nausea), monitor the vital signs, ask the patient to sit down and keep calm, encourage taking deep breaths, and call emergency medical services.

> **Question 5.** How would you explain your decisions to screen or not to screen at the planning meeting to other participants?

Answer: Some invasive screening tests are not advised to be performed at this event, such as cancer screenings requiring specialized equipment and healthcare providers. Screenings may have high false positive rates, lack follow-up healthcare options, or require sensitive private information if there is a lack of

confidentiality. These screenings are not performed. You may focus on the screenings that are easily accessible and readily available to meet the primary community health needs and promote community health with available educational materials.

Child Passenger Safety Case Study

Car crashes are a leading cause of death for children 1 to 13 years old in the United States.

https://www.savemolives.com/mcrs/child-passenger-safety-enforcement-week#:~:text=In%202023%2C%2010%20children%20less,car%20seat%20or%20safety%20belt

Read the following websites to complete this case study:

Missouri Department of Transportation (child safety seats, booster seats, seat belts), please follow the link below:
https://www.modot.org/child-safety-seats#:~:text=Missouri's%20Child%20Restraint%20Law&text=Children%20ages%204%20through%207,or%204'9%22%20tall.

Become a Certified Child Passenger Safety Technician
https://cert.safekids.org/ and https://cert.safekids.org/become-tech

Find the Right car Seat and Car Seat Recommendations for Children
https://www.nhtsa.gov/vehicle-safety/car-seats-and-booster-seats#car-seat-types

National Highway Traffic Safety Administration
https://www.nhtsa.gov/campaign/safercargov?redirect-safercar-sitewide

Check Car Seat Recall by Entering the Brand Name or Model, please use the link below:
https://www.nhtsa.gov/recalls

Safe Kids
https://www.safekids.org/

Question 1. A public health nurse would like to become a certified child passenger safety technician. What are the requirements for certification? Does a U.S. Child Passenger Technician certification expire?

Question 2. A pregnant client comes to your health department. She wants to know what car seats would be appropriate for her newborn baby and her 4-year-old child and who could help her install them properly in her car. What information would you provide? Where can the client get information about ease-of-use ratings for car seats?

Question 3. The client asked whether the four-year-old child can still use a car seat. When should a child use a booster seat or safety belt? What is the correct way to wear a seat belt on a child?

Question 4. Your client wonders if she could reuse a car seat given to her by a friend. What are your concerns with used car seats?

Question 5. A client brings in car seats to be checked for use. The information for each seat follows. Indicate if the car seat can be used, why or why not.

1: Manufacturer-Cosco/Dorel, Model-Scenara, Date of Manufacture 5/23/2011

2: Manufacturer-Britax Advocate ClickTight, Model-E9LT95Z Date of Manufacture 6/15/2015

3: Manufacturer-Cosco Scenera, Model: 22156, Date of Manufacture 10-31-2016

Answers for Child Passenger Safety Case Study

> **Question 1.** A public health nurse would like to become a certified child passenger safety technician. What are the requirements for certification? Does a U.S. Child Passenger Technician certification expire? Use these links to answer this question: https://cert.safekids.org/ and https://cert.safekids.org/become-tech

Answer: Requirements: Enroll in a program of safety kids worldwide to be a nationally certified child passenger safety (CPS) technician. For age requirements, you must be 18 or older and pass a CPS certification course. For the course requirements, 1) attend every part of the course. 2) written quizzes. 3) hands-on skills assessments. 4) checkup event.

Answer: Renewal: The certification needs to be renewed every two years.

> **Question 2.** What information would you provide? Where can the client get information about ease-of-use ratings for car seats?

Answer: Car Seat for her Newborn Baby: From birth to 12 months old child should always ride in a rear-facing car seat.

Answer: Car Seat for her 4-year-old Child: Once your child outgrows the rear-facing car seat, the child is ready to travel in a forward-facing car seat with a harness and tether until the child reaches the top height or weight limit allowed by your car seat's manufacturer. Choosing the right car seat depends on your child's age, height, and weight. You can use the car seat finder to find the right seat for your children by clicking the link https://www.nhtsa.gov/vehicle-safety/car-seats-and-booster-seats#car-seat-types

Answer: Car Seat Installation and Inspection: If you need help installing, please get help at a car seat inspection station near you. Certified technicians will inspect your car seat free of charge in most cases. You can enter your city, state, or zip code to make an appointment by using the link, https://www.nhtsa.gov/vehicle-safety/car-seats-and-booster-seats#car-seat-types

Answer: Ease-of-use Rating: For information about ease-of-use rating, please use the following link https://www.nhtsa.gov/car-seats-and-booster-seats/car-seat-ease-use-ratings

Question 3. When should a child use a booster seat or seat belt? What is the correct way to wear a seat belt on a child?

Answer: Booster Seat: Once your child outgrows the forward-facing car seat with a harness. It is time to travel in a booster seat, but still in the back seat.

Answer: Seat Belt: Keep your child in a booster seat until the child is big enough to fit in a seat belt properly. But your child should still ride in the back seat for safety.

Answer: Correct way to Wear a Seat Belt: The lap belt must lie snugly across the upper thighs, not the stomach. The shoulder belt should lie snugly across the shoulder and chest and not cross the neck or face.

Question 4. What are your concerns with used car seats?

Answer: Concerns: You must check the car seat expiration date (usually 6 years from the date of manufacture, which is stamped on the car seat), the car seat has not been recalled, the history of the car seat (Car seats are designed to perform one time in a crash situation, and there is no way of knowing if the car seat has been in a crash), and missing labels (the labels provide basic instructions, warnings, manufacturer information, the date of manufacture, and model number).

To determine if the used car seat is okay, please use the link https://www.safekids.org/blog/it-okay-use-second-hand-car-seat

Check if the car seat has been recalled by using the link https://www.nhtsa.gov/recalls

Question 5. A client brings in car seats to be checked for use. The information for each seat follows. Indicate if the car seat can be used, why or why not.

1: Manufacturer-Cosco/Dorel, Model-Scenara, Date of Manufacture 5/23/2011

2: Manufacturer-Britax Advocate ClickTight, Model-E9LT95Z Date of Manufacture 6/15/2015

3: Manufacturer-Cosco Scenera, Model: 22156, Date of Manufacture 10-31-2021

Review the information on the concerns with a used car seat on question 4 before answering these questions.

Answer: #1 The useful life of a Cosco/Dorel car seat is eight years. It cannot be used because of the expiration date.

Answer: #2 Most Britax car seats useful life is 6 to 10 years; The seat is not safe and cannot be used because it past or close its expiration date.

Answer: #3 This seat's useful life is 6 – 8 years. It can still be used if there are no other concerns.

Community Health Policy Development Case Study

Almost 10,000 Missourians die from tobacco-related diseases every year. There was 16.8% of adults in Missouri smoked in 2022.

To complete this case study, please review the following links:

Missouri's Clean Indoor Air Law
https://health.mo.gov/living/wellness/tobacco/smokingandtobacco/pdf/CIA-RightRead.pdf
https://health.mo.gov/living/wellness/tobacco/smokingandtobacco/pdf/FAQ_CIA.pdf

Building Communities for Better Health
https://health.mo.gov/living/wellness/tobacco/smokingandtobacco/bcbh.php

Missouri Smoke-free Housing Toolkit
https://health.mo.gov/living/wellness/tobacco/smoke-free-environments/pdf/missouri-smoke-free-housing-toolkit.pdf

Missouri Smoke-free Public Housing Agency Toolkit
https://health.mo.gov/living/wellness/tobacco/smokingandtobacco/pdf/smoke-free-housing-toolkit.pdf

Missouri Department of Health and Senior Services/Smoke-Free Environment
https://health.mo.gov/living/wellness/tobacco/smoke-free-environments/

A group of people in your community approached the Health Department about developing an ordinance to prohibit smoking in indoor and outdoor spaces where children are present. There is no organized group now, just a group of people tired of breathing smoke at local restaurants and having people smoke around their children at the park. The Health Department has been gathering data about smoking rates in the county. The current reported rate of smoking in adults is 5% higher than the state rate. The local school districts have reported that several students smoke and keeping up with students' smoking is a discipline problem.

Your agency wants to become involved in this community effort.

Question 1. What would be your first action to address this issue?

Question 2. What are the steps to establish this type of ordinance?

Question 3. Where would you look for assistance with addressing this issue?

Question 4. How would you measure support for this type of ordinance in your county?

Question 5. How would you identify those who oppose this type of ordinance in your county?

Question 6. Who would you enlist to support this issue?

Answers for Community Health Policy Development Case Study

Question 1. What would be your first action to address this issue?

Answer: Your first action should be to assess and collect the data on the smoking rate, affected groups, and factors contributing to your agency's high smoking rate. Then, you should develop a smoke-free policy/ordinance with smoking cessation programs and create smoke-free environments.

Question 2. What are the steps to establish this type of ordinance?

Answer: Steps

1. assess and gather data;
2. build support;
3. draft the ordinance;
4. create a timeline for change;
5. promote the ordinance;
6. legislative process;
7. implementation and enforcement; and
8. evaluation of the ordinance

https://health.mo.gov/living/wellness/tobacco/smoke-free-environments/pdf/missouri-smoke-free-housing-toolkit.pdf

Question 3. Where would you look for assistance with addressing this issue?

Answer: Building Communities for Better Health (BCBH), Community Health Department, partners, the owners of buildings, employers, parents, community leaders, Missouri Department of Health and Senior Services/Tobacco Prevention and Control Program, the U.S. Environmental Protection Agency, the U.S. Department of Housing and Urban Development support (require all public housing agency homes to implement a smoke-free policy by July 30, 2018), and Missouri Tobacco Quit Services work together to address this issue.

Question 4. How would you measure the effectiveness of this type of ordinance in your county?

Answer: There are five studies to evaluate the effects of the ordinance after its implementation.

Five Studies

1. Public support: These studies use surveys to evaluate public support.
2. Compliance: These studies are useful for evaluating compliance rates, implementation progress, and trends over time.
3. Air Quality Monitoring: The results of these studies can be used to compare the air quality in these places before and after the ordinance.
4. Employee Health: These studies can measure changes in employees' secondhand smoke exposure and related health outcomes.
5. Economic impact: These studies assess the economic impact of the smoke-free ordinance on places.

https://www.cdc.gov/tobacco/stateandcommunity/tobacco-control/pdfs/evaluation_toolkit.pdf

Question 5. How would you identify those who support or oppose this type of ordinance in your county?

Answer: You can conduct an online survey among business owners, communities, restaurants, bars, healthcare facilities, schools, organizations, and any place in your county to assess reactions to the smoke-free ordinance in support and opposition.

There is an article about conducting an online survey for a smoke-free ordinance, and the reference is below.

Berg, C. J., Thrasher, J. F., O'Connor, J., Haardörfer, R., & Kegler, M. C. (2015). Reactions to Smoke-free Policies and Messaging strategies in support and opposition: A comparison of Southerners and Non-Southerners in the US. *Health Behavior and Policy Review*, 2(6), 408–420. https://doi.org/10.14485/HBPR.2.6.1

or you can click this link:
https://pmc.ncbi.nlm.nih.gov/articles/PMC4686148/#:~:text=We%20explored%20differences%20in%20support%20for%20smoke%2Dfree,online%20survey%20was%20conducted%20among%202501%20adults

To check if the tobacco industry and its partners (alcohol, hospitality, and gaming industries, and smokers' rights and libertarian groups) propose laws against the smoke-free ordinance.
https://breathe.uky.edu/sites/default/files/2024-02/whattheoppositionsays.pdf

Question 6. Who would you enlist to support this issue?

Answer: Support from the following community leaders, employers, policymakers, governors, and resident representatives will strengthen the efforts.

Evaluation of Your Public Health Experience

Please provide feedback about your experience using the Missouri Public Health Preceptor Orientation Manual. Please submit this form to https://www.mopha.org/contact-mopha.php

Date: ____________________

1. Are you a new public health nurse, a student nurse, or a nurse preceptor? *Circle one*
2. Which chapter was most helpful to you?
3. What chapter was least helpful to you?
4. Would you recommend the Missouri Public Health Preceptor Orientation Manual to others? If no, explain why not? *yes or no*
5. Other comments or suggestions you want to share.