

Applying interventions to a real public health situation

PUBLIC HEALTH INTERVENTION WHEEL UPDATE INSTRUCTOR GUIDE

This guide provides instructions for applying the Public Health Intervention Wheel to the COVID-19 pandemic. Additional application activities are available in the Wheel Manual, which provides an example of a real public health situation with questions for each wedge.

- **Red wedge:** Cancer detection and screening
- **Green wedge:** Tuberculosis
- **Blue wedge:** Somali families with school children
- **Orange wedge:** High risk factors and birth outcomes
- **Yellow wedge:** Pandemic flu planning

Another option is to create your own scenarios.

You can find the Wheel Manual online at: [Public health interventions: Applications for nursing practice, 2nd ed.](http://www.health.state.mn.us/communities/practice/research/phncouncil/wheel.html) (www.health.state.mn.us/communities/practice/research/phncouncil/wheel.html).

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1. Problem for Wheel application

On March 11, 2020, the World Health Organization declared a worldwide pandemic of COVID-19, a disease caused by the novel SARS-CoV2 virus emerging from Wuhan, China. On March 13, the USA followed suit.

- Statistics show that case numbers and deaths among Black, Indigenous, Hispanic/Latino and Asian-Americans are higher than for white Americans. Why is this? What can be done to intervene?
- Source: [Centers for Disease Control and Prevention: COVID-19 hospitalization and death by race/ethnicity](http://www.cdc.gov/coronavirus/2019-ncov/covid-data/investigations-discovery/hospitalization-death-by-race-ethnicity.html) (www.cdc.gov/coronavirus/2019-ncov/covid-data/investigations-discovery/hospitalization-death-by-race-ethnicity.html)
- Consider that you are a public health nurse (PHN) employed by a large urban public health department. Choose a public health department and go to that department's website or, if you are employed as a PHN, access your own health department website.
- Look at the Centers for Disease Control and Prevention (CDC) web page titled [Health equity considerations and racial and ethnic minority groups](http://www.cdc.gov/coronavirus/2019-ncov/community/health-equity/race-ethnicity.html) (www.cdc.gov/coronavirus/2019-ncov/community/health-equity/race-ethnicity.html).

2. Individual activity

- After reading the problem described above, answer the question(s) on the [presentation slides \(PDF\)](http://www.health.state.mn.us/communities/practice/resources/training/docs/2011-wheeloverview/2011-wheeloverview.pdf) (www.health.state.mn.us/communities/practice/resources/training/docs/2011-wheeloverview/2011-wheeloverview.pdf) for each of the 17 interventions and identify applicable levels of practice for each.
- Choose one intervention in a wedge to expand on, by applying basic steps outlined in the Wheel manual for that wedge.
- Use the Wheel handout to refer to intervention definitions and practice levels. Use the Wheel Manual to refer to examples and basic steps. You can find the Wheel handout at: [Public health interventions: Applications for nursing practice, 2nd ed.](http://www.health.state.mn.us/communities/practice/research/phncouncil/wheel.html) (www.health.state.mn.us/communities/practice/research/phncouncil/wheel.html).

3. Group activity

For a group activity, divide PHNs or students into five wedge groups for discussion and have each group provide a summary.

- Answer all the questions on the [presentation slides \(PDF\)](http://www.health.state.mn.us/communities/practice/resources/training/docs/2011-wheeloverview/2011-wheeloverview.pdf) (www.health.state.mn.us/communities/practice/resources/training/docs/2011-wheeloverview/2011-wheeloverview.pdf) within a wedge and summarize.
- For the selected wedge(s), choose one intervention to identify the basic steps public health nurses can follow to implement the intervention. Refer to the intervention definition, examples, and basic steps in the Wheel Manual.

4. Answers and sources for application questions by wedge

Red wedge

Surveillance

What is the current incidence and prevalence of COVID-19 cases in your local health department or tribal health department for each racial and ethnic group?

Source: [CDC: Lesson 3: Measures of Risk: Section 2: Morbidity Frequency Measures](http://www.cdc.gov/csels/dsepd/ss1978/lesson3/section2.html) (www.cdc.gov/csels/dsepd/ss1978/lesson3/section2.html)

Disease and health event investigation

What potential underlying factors contribute to differences in COVID-19 risk among races/ethnicities in your local or tribal health department?

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Answer: Discrimination, healthcare access and utilization, occupation, education, income, and wealth gaps, housing.

Source: [CDC: Health equity considerations and racial and ethnic minority groups](https://www.cdc.gov/coronavirus/2019-ncov/community/health-equity/race-ethnicity.html) (www.cdc.gov/coronavirus/2019-ncov/community/health-equity/race-ethnicity.html); scroll to “Data on COVID-19 and race and ethnicity”

Outreach

Identify three outreach strategies to reach those races/ethnicities in your local or tribal health department disproportionately affected by COVID-19. What do you need to be concerned about in developing messages of risk? Where do you go for help?

Answer: Working together with racial and ethnic communities and related tribal/city/county-based organizations; develop a strategy to reach the people at risk.

Source: [CDC: What we can do](https://www.cdc.gov/coronavirus/2019-ncov/community/health-equity/what-we-can-do.html) (www.cdc.gov/coronavirus/2019-ncov/community/health-equity/what-we-can-do.html)

Screening

Which of the three screening strategies would you use: mass, targeted, or periodic? List a specific example for each.

Answer:

- Mass screening - Either through your own department or with other health care organizations, provide COVID-19 screening tests for anybody in the community who wants one.
- Targeted screening - Work with specific racial and ethnic organizations in your local or tribal health department to reach specific groups of the population.

Sources: [U.S. Food and Drug Administration \(USDA\): Coronavirus testing basics](https://www.fda.gov/consumers/consumer-updates/coronavirus-testing-basics) (www.fda.gov/consumers/consumer-updates/coronavirus-testing-basics); [CDC: Covid-19 testing overview](https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/testing.html) (www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/testing.html)

Case-finding

What happens to those individuals whose tests are positive for COVID-19? What happens to the data?

Answer:

- The individual/family is advised on how to proceed. The data is sent to the state health department and then on to both CDC and HHS.
- In most states the legal authority rests with state’s health department. As an example, see [Minnesota Department of Health \(MDH\): Reporting COVID-19/SARS-CoV-2 infections](https://www.health.state.mn.us/diseases/coronavirus/hcp/report.html) (www.health.state.mn.us/diseases/coronavirus/hcp/report.html).

Source: [White House: Guidance on interpreting Covid-19 test results \(PDF\)](https://www.whitehouse.gov/wp-content/uploads/2020/05/Testing-Guidance.pdf) (www.whitehouse.gov/wp-content/uploads/2020/05/Testing-Guidance.pdf)

More information: [CDC: Case investigation and contact tracing: Part of a multipronged approach to fight the COVID-19 pandemic](https://www.cdc.gov/coronavirus/2019-ncov/php/principles-contact-tracing.html) (www.cdc.gov/coronavirus/2019-ncov/php/principles-contact-tracing.html)

Green wedge

Referral and follow-up

Name one culturally appropriate referral source for each of the races/ethnicities in your local or tribal health department disproportionately affected by COVID-19. How do you assure the resources are used?

Answer: Check back later with the client to determine use and effectiveness of the resource(s).

Case management

In the local or tribal health department, who is in a position to provide case management to members of each of these targeted groups with positive COVID-19 results? What if there are no groups or organizations designated?

Answer: Check the local or tribal health department's case management list and refer. If none are listed the PHN should provide the case management service or work with organizations to create one.

Example: Contra Costa Health Services: About CommunityConnect (<https://cchealth.org/care/>)

Delegated functions

In your department, you are given the responsibility to establish a drive up COVID-19 testing program using a nasal swab test. Is this within your legal authority to so?

Answer: Are you licensed as advanced practice registered nurse? If yes, and in Minnesota, go ahead. If not, seek out the medical practitioner within your department who has the right to write the order. Know your state's nursing practice laws.

Blue wedge

Health teaching

What do you keep in mind while preparing health teaching strategies for individuals and families? At the community level? At the systems level?

Answer:

Keep in mind what needs to change (see pp. 14-15 of the Wheel Manual).

- At the **systems level**, change occurs in organizations, policies and laws, and power structure.
- At the **community level**, change occurs in community norms, attitudes, awareness, practice, and behaviors.
- At the **individual/family level**, change occurs in an individual's knowledge, attitudes, beliefs, practices and behavior.

Source: CDC: How to protect yourself and others (www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/prevention.html)

Counseling

You are working with a Spanish-speaking single mother from El Salvador. She has two elementary children in second and fourth grades with different school schedules. She works nights as an essential worker in a poultry factory. Provide an example of counseling with the mother in exploring her options for childcare. (Note: One possibility for the application discussion is adding the issue of undocumented status for the mother).

Answer: Assist the mother in identifying her options while listening carefully, developing rapport.

Consultation

What other community agencies could you engage in conversation when trying to develop a resource for the woman you encountered in the counseling intervention?

Answer: Are there locally-based chapters of the National Association for Family Child Care (NAFCC) (www.nafcc.org/) and the National Child Care Association (NCCA) (www.nccanet.org/) or something similar in your local or tribal health department? Is there a member of your department's staff that has an affiliation with them or, if not, could you create one? What would that take?

Orange wedge

Collaboration

You are assigned to your local or tribal health department's internal COVID-19 Pandemic Response Team. What is your general responsibility?

Answer: With team members, work together to provide accurate information, share resources, and report back to your department administrators.

Coalition-building

You're assigned to serve on a neighborhood block organization as a representative of your department to develop a response to COVID-19. What are your responsibilities?

Answer: To provide a link to the department, assist in solving problems, and/or enhance local leadership in response to health concerns.

Source: See Katherine Cusumano's How to Start a Neighborhood Association (New York Times, June 6, 2020) (www.nytimes.com/2020/06/06/smarter-living/how-to-start-a-neighborhood-association.html) if there is not one in your area.

Community organizing

You're a team leader of PHNs providing health care assessments for infants and toddlers in a community clinic serving low-income families. You and the other PHNs learn of misinformation about COVID-19 transmission and how to protect against it from parents. No one is sure of the source of the misinformation. What are your options?

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Answer: You contact other health care organizations and human services providers in the area and learn that many are hearing of the same misinformation. You convene a meeting to discuss possible strategies and, if possible, identify the source of the misinformation.

Yellow wedge

Advocacy

You are part of a team deciding on COVID-19 testing sites. There are pockets of places where people live that have no public transportation or access to cars; an example is homeless encampments. What can you do to increase access to testing?

Answer: Assure that the decision-makers are aware of these contingencies and accommodate them.

Social marketing

You've been assigned as a department representative to the local or tribal health department public information office. A local news outlet has reported that COVID-19 is "just like the flu" and will go away like the flu after this season. What can be done to counter this misinformation? What is your role?

Answer: Apply the basic steps (pp. 222-226 of the Wheel Manual) to the problem and assure accurate information.

See: [CDC: Similarities and differences between flu and COVID-19](http://www.cdc.gov/flu/symptoms/flu-vs-covid19.htm) (www.cdc.gov/flu/symptoms/flu-vs-covid19.htm)

Policy development and enforcement

The governor issued a policy that everyone in public spaces must wear a mask unless they are under the age of two or otherwise cannot tolerate a mask for medical reasons. This includes any person who has trouble breathing. Your department's policy was the same but was unclear what is meant by "anyone who has trouble breathing." You encounter a mother at her child's well child assessment who says she cannot wear a mask due to asthma. What do you do?

Answer: Anticipate these responses and get clarification from your supervisor ahead of time. Be aware of your state and department's mask mandates and guidance.

Sources: [MDH: Frequently asked questions about the requirement to wear face coverings](http://www.health.state.mn.us/diseases/coronavirus/facecoverfaq.html) (www.health.state.mn.us/diseases/coronavirus/facecoverfaq.html); [CDC: Considerations for wearing masks](http://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/cloth-face-cover-guidance.html) (www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/cloth-face-cover-guidance.html)

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November 2020. To obtain this information in a different format, call: 651-201-3880.

For further help with this guide or to contact the presenters, visit: [MDH: Public Health Intervention Wheel: Evidence update](http://www.health.state.mn.us/communities/practice/resources/training/2011-wheel.html) (www.health.state.mn.us/communities/practice/resources/training/2011-wheel.html)