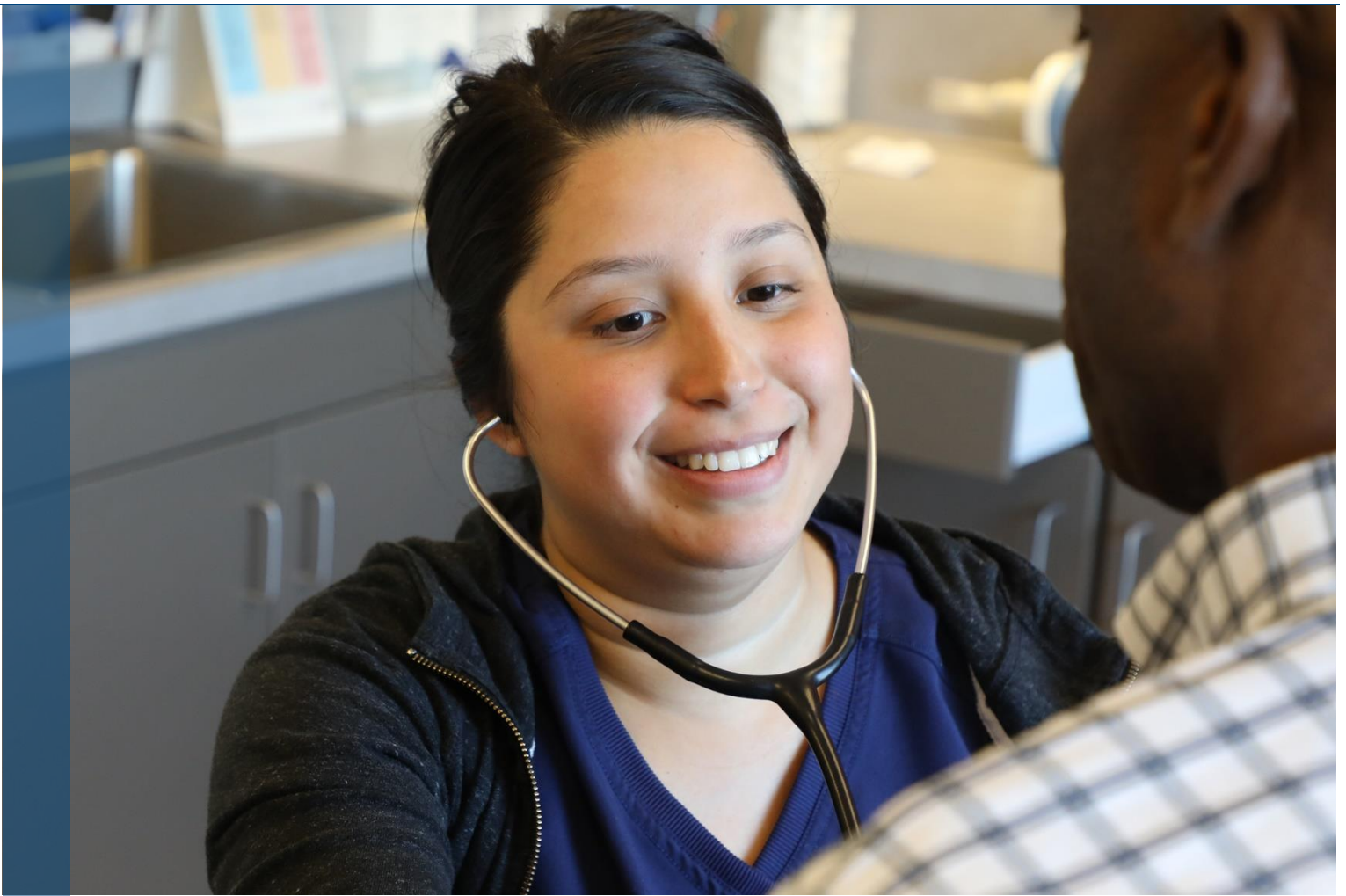




Potentially Preventable Hospitalizations Project Report

Bonnie Corns, MPA

Jennie Schoeppe, MSPT, MPH

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Tacoma-Pierce County
Health Department
Healthy People in Healthy Communities

Executive Summary

Potentially Preventable Hospitalizations (PPH) happen when people are hospitalized for something that could be treated in a primary care setting. Common preventable hospitalizations are caused by worsening chronic conditions like diabetes or heart disease, or communicable diseases like influenza (flu) and pneumonia.

In 2017, the Washington State Office of Financial Management (OFM) used data from the United States Agency for Healthcare Research and Quality (AHRQ) to show 27th and 29th legislative districts had the highest rates of PPH in the state (<https://bit.ly/2CvL08O>). The worst PPH rates were in 6 zip codes—98404, 98405, and 98408 (27th legislative district), and 98409, 98418, and 98444 (29th legislative district). These zip codes also have poor health outcomes and disparities. Tacoma-Pierce County Health Department brought together local health systems, providers, payors, and others to address PPH in the target zip codes.

The PPH project raises awareness and expands community response to preventable hospitalizations due to chronic health conditions. We do this by strengthening relationships with health systems, community clinics, and other community partners. The long-term goal is to improve health and reduce healthcare costs in the target zip codes. The priorities for years 1 and 2 were immunizations, care coordination, and screening, brief intervention, and referral to treatment (SBIRT), including motivational interviewing (MI).

PPH Project Goals		
Immunization	SBIRT & MI	Access to Care
Increase flu and bacterial pneumonia immunization rates.	Increase number of patients screened and referred to treatment.	Increase alignment of care coordination across health systems.
Increase access to vaccines.	Increase resources available in 6 PPH zip codes.	Support Elevate Health (Pierce County Accountable Communities of Health) initiatives.
Encourage use of Washington State Immunization Information System (WAIS).	Provide prevention education about tobacco, alcohol, other drugs, and depression.	

Accomplishments

Immunizations

- Purchased and distributed 750 doses of flu and pneumococcal vaccines to community clinic partners.
- Held 10 community immunization clinics—gave 127 vaccines.
- Trained staff at 9 medical offices to improve knowledge of vaccination recommendations and billing practices. Participants reported increased knowledge and confidence, and education was valuable to their work.

SBIRT and MI

- Trained more than 200 community providers and staff from more than 50 organizations in SBIRT and MI.

Care Coordination

- Improved care coordination by supporting the use of Collective Ambulatory tool at 7 agencies that serve patients in our target zip codes. Two other clinics are in the process of implementation.
- Strengthened relationships among community partners and health systems through data sharing, problem solving, and collaborative working groups.
- Refined strategies, objectives, and approach for year 3 work based on community-level data and lessons learned.

Challenges and Lessons

- Our staff's response to COVID-19 and the burden caused for our partners in the medical community impacted our ability to get data and move forward some of our work.
- Continued gaps in the use of WAIS impact our ability to get an accurate view of the community immunity level, engage clinics in quality improvement work, and clinical staff to understand if a patient is due for vaccines.
- The different electronic health records (EHR) systems and data collection methods used by our partners make getting comparable data challenging. We need to better understand our community partners' EHR and data systems to effectively collect and use their data to promote learning and advance project goals.
- Understand limitations in community-level or public health surveillance systems data to measure impact and target interventions. We'll work to access more detailed data from our partner health systems and community clinics.

What's Next in Year 3

As the overall rate of PPH in our zip codes has decreased since 2013, PPH due to heart failure steadily increased. We also recognize the ongoing impact the COVID-19 pandemic has on already vulnerable community members. Our year 3 strategies will expand on and refine our work. We will focus on people in our zip codes experiencing heart failure and we will align with efforts to lessen the impacts of COVID-19.

In year 3 we will:

- Seek opportunities to align our PPH efforts with community efforts to lessen the impact of COVID-19 among our most vulnerable community members.
- Work with community partners to implement interventions that address issues impacting people with heart failure.
- Provide technical assistance and resources to increase our partners' capacity for screening and referral to treatment for vulnerable patients.
- Support community partners to improve the way Community Health Workers (CHW) are supported and deployed in our community to address the social and economic needs of patients.

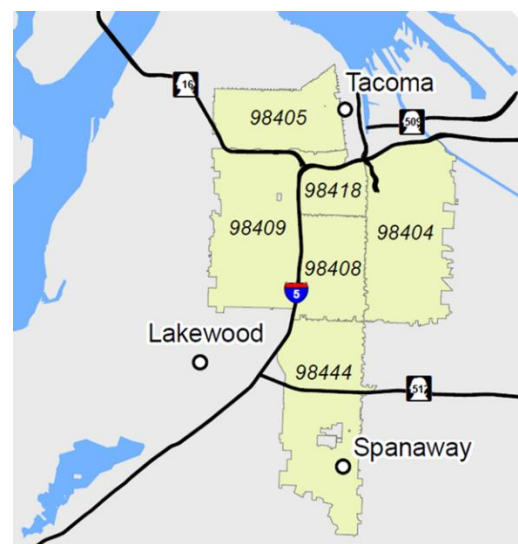
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Introduction

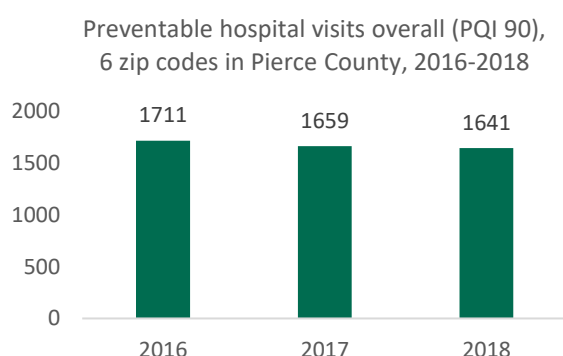
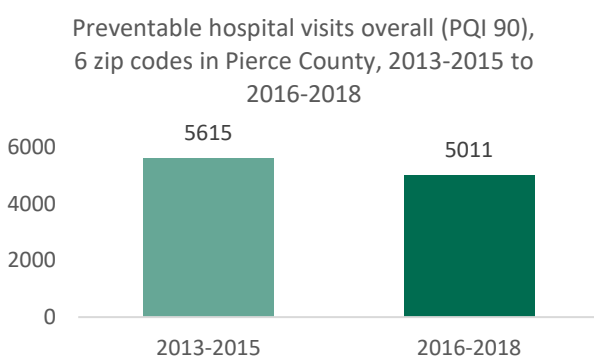
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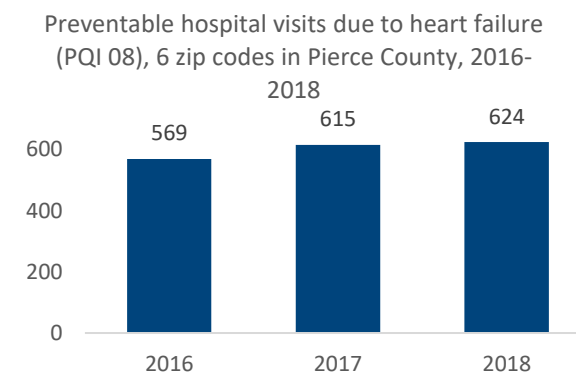
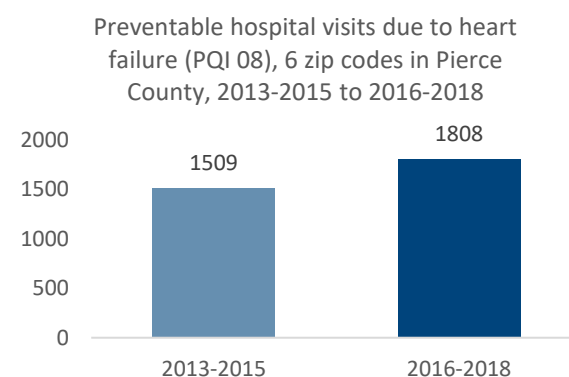
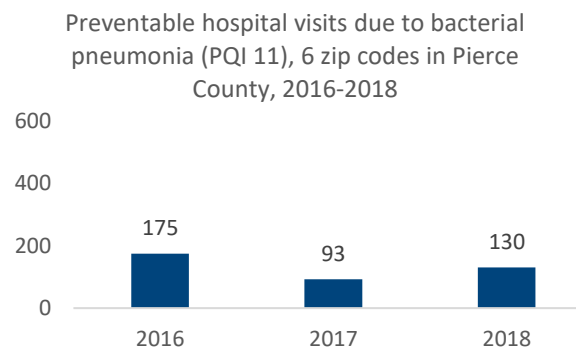
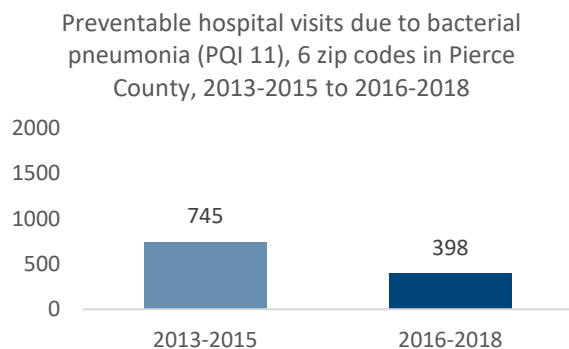
In 2017, the Washington State Office of Financial Management (OFM) used data from the United States Agency for Healthcare Research and Quality (AHRQ) to show that the 27th and 29th legislative districts had the highest rates of PPH in the state (<https://bit.ly/2CvL080>). The worst PPH rates were in six zip codes—98404, 98405, and 98408 (27th legislative district), and 98409, 98418, and 98444 (29th legislative district). These zip codes also have poor health outcomes and disparities. Tacoma-Pierce County Health Department brought together local health systems, providers, payors, and others to address PPH in the target zip codes.



The OFM findings were based on AHRQs Prevention Quality Indicators (PQI) from 2013-2015, and prior project reports have used that period as a baseline. Data from 2016-2018 provide a better baseline moving forward because they represent more recent PPH in the target zip codes and better align with project implementation from 2018. In addition, AHRQ data depend on ICD codes, which transitioned from ICD-9 to ICD-10 diagnosis codes in October 2015. Primary indicators of interest are overall PPH (PQI 90), PPH due to bacterial pneumonia (PQI 11), and PPH due to heart failure (PQI 08). We expect to see PQI data for 2019 in July 2020. It will allow us to assess progress compared to the 2016-2018 period.

Overall, PPH in the 6 target zip codes decreased over time. Hospitalizations due to bacterial pneumonia are also declining. However, hospitalizations due to heart failure are increasing. In 2018, there were more than 4x times the number of PPH due to heart failure as from bacterial pneumonia. Heart failure hospitalizations were 38% of overall hospitalizations that year.





The PPH project raises awareness of and expands community response to preventable hospitalizations due to chronic health conditions. We do this by strengthening relationships with health systems, community clinics, and other community partners. The long-term goal is to improve health and reduce healthcare costs in the target zip codes. The following table provides a high-level summary of our work to date and the plan for year 3.

PPH Project Work Summary		
Year 1—July 2018-June 2019	Year 2—July 2019-June 2020	Year 3—July 2020-June 2021
Distributed vaccines.	Increased access to vaccines through community immunization clinics.	Support partners to ensure patients with heart failure receive necessary immunizations.
Trained community partners in immunizations and WAIS.	Conducted 5 additional SBIRT/MI trainings for community providers and staff.	Encourage data sharing across health systems to improve patient care and care coordination.
Assessed community partner agencies' use of screening, brief intervention, and referral to treatment (SBIRT) and motivational interviewing (MI).	Learned about community partners' use of data.	Provide targeted technical support for consistent SBIRT implementation focusing on referral to treatment resources.
Conducted 2 SBIRT/MI trainings for community providers and staff.	Worked on ways to share data across health systems to improve patient care and care coordination.	Support community tobacco cessation resources/efforts.
		Understand the current state of primary care assessment of patient social and economic factors.
		Support increased use of community health workers.

Strategies

1—Immunizations

Hospitalizations due to bacterial pneumonia are potentially preventable. Flu is a risk factor for bacterial pneumonia. To reduce these hospitalizations, we increased access to vaccinations for bacterial pneumonia and flu, as well as improved use of the Washington State Immunization Information System (WAIS) among community partners.

Our immunization work included:

- Distributing vaccines to clinics and pharmacies.
- Conducting community immunization clinics
- Supporting the Medical Reserve Corps (MRC) with their immunization clinics.

We also provided immunization-related education to our community partners, and encouraged provider use of the WAIS. Our immunization nurses recently worked with a local pharmacy to pilot the use of ImmsLink, a bi-directional immunizations registry.

Immunization Goals

- Increase flu and bacterial pneumonia immunization rates.
- Increase access to vaccines.
- Encourage use of WAIS.

Accomplishments

- Purchased and distributed 750 doses of flu and pneumococcal vaccines to community clinics.
- Held 10 community immunization clinics: 127 vaccines given. Walgreens and MultiCare nurses attended some events to offer blood pressure checks and diabetes screenings.
- Supported the MRC at 14 vaccination events in 6 zip codes: 240 flu and pneumococcal vaccines given.
- Trained staff at 9 medical offices to improve knowledge of vaccination recommendations and billing practices. Participants reported increased knowledge, increased confidence, and that the education was valuable to their work.
- Conducted trainings for two pharmacies and a private medical clinic to encourage the use of WAIS. The medical clinic went from 0% to 100% entry into WAIS for the 2019 flu season.
- Provided the resources for Community Health Care (CHC) to hire a Vaccine Coordinator. The coordinator gave 210 vaccinations to vulnerable community members at the Hilltop Vaccination Clinic during the 2018-2019 flu season.

Challenges and Lessons

- The immunization team attempted to partner with several community agencies. They hoped community medical clinics and pharmacies would join them at immunization clinics – to either help our staff or send volunteers. Participation was very limited due to clinics' many competing priorities.
- Hosting vaccine clinics is time and resource intensive for the number of community members reached. Community members are not always open to getting vaccines in a non-traditional setting and may not be ready to be vaccinated (wearing the wrong clothing, etc.).

- It is a challenge to determine where to host clinics to reach the right people, with limited demographic data available.
- Vaccine order arrived late, so clinics didn't begin until November 2019.
- We continue to note gaps in the use of the WAIS system, which has many impacts like limiting our ability to get an accurate view of the community immunity level and to employ targeted interventions. This makes it challenging to engage clinics in quality improvement work without accurate coverage rates, which in turn, makes it hard for clinical staff to truly understand if a patient is due for vaccines.
- We learned to better understand the impact of our work and make improvements to project activities we need to enhance our performance measures, for example by establishing SMART goals.
- Our staff's response to COVID-19, and the burden this caused for our partners in the medical community impacted our ability to get updated immunization data from our community partners and analyze 2019 WAIS data for this report.

What's Next in Year 3

Numbers of overall PPH and those due to bacterial pneumonia are decreasing, but PPH due to heart failure are increasing. To ensure that patients with heart failure in our zip codes receive the vaccinations they need, we will work with community partners to assess and support their needs. We know that people with underlying health problems, like heart failure, are especially vulnerable to the COVID-19 virus, so reducing PPH and maintaining the capacity of our healthcare system is crucial. We will work with partners to obtain and analyze data whenever possible, so we can better understand the impact of our more targeted approach.

2—Care Coordination and Data Sharing

A year 2 PPH strategy was added to help align care coordination efforts across the healthcare system. The goal of this strategy was to ensure people get services they need in an efficient way. We promoted the use of care coordination tools, such as the Collective Ambulatory tool, and looked for opportunities to bring our partners together to share data in a way that identifies gaps and generates ideas to improve patient access to care.

Care Coordination Goals

Align care coordination efforts across health systems.

Support Elevate Health (Pierce County ACH) initiatives.

One of our staff members serves as co-chair of the Community Collaborative, a group of service providers working to understand the system level challenges of referring patients to each other's services. This year, the Community Collaborative worked to improve the quality and consistency of communication for patient care using the "Collective Ambulatory" tool, developed by [Collective Medical](#). This tool allows providers from different health systems and other clinical entities to exchange real-time patient information, improving care coordination and quality. In response to COVID-19, an alert was added to the Collective Ambulatory tool. The alert will let providers know if a patient has COVID-19 and allow for better care coordination.

We also engaged our community partners to share their [Third Next Available Appointment](#) (TNAA) data with us and their other PPH partners. TNAA is how many days it takes a patient to see their care provider and is used to measure access to care. Last year, there was a lot of variability in the quality and completeness of data we collected. We worked to improve communication and instructions for data collection. We looked for opportunities to decrease the burden on our partners by aligning our data requests with how their data are already being collected (to the extent possible). Our goal was to have 6 months of baseline data (January to June 2020) to inform discussion and problem solving; however, data collection has been impacted by the COVID-19 response. We look forward to working with our partners to collect meaningful data and explore ways to improve patient access to care.

Accomplishments

- Supported Collective Medical and partner agencies to launch the Collective Ambulatory tool.
- Improved care coordination by supporting the use of Collective Ambulatory tool at 7 agencies that serve patients in our target zip codes. Two other clinics are in the process of implementation.
- Fostered relationships with community partner data teams and established buy-in to regularly collect and share TNAA data. This will encourage learning about patient access issues and enhance process improvement across the health system.

Challenges and Lessons

- The different EHR and data collection methods used by our partners makes getting comparable data challenging.
- The competing priorities of community partners sometimes limits regular data sharing. We work with partners to reduce those challenges.
- Our staff's response to the COVID-19 and the burden this caused for our partners in the medical community impacted our ability to get TNAA data for the first two quarters of 2020 from our community partners.

What's Next in Year 3

We'll continue to work with community partners to collect meaningful data and promote data sharing and learning. With TNAA data, we will identify barriers to collecting and submitting high-quality data, analyze the data, and promote learning among our partners. We'll also use partner health systems' and community clinics' data to identify a cohort of patients with heart failure so we can focus interventions to improve the rate of PPH due to that condition. We will continue to encourage use of the Collective Ambulatory tool to improve care coordination and reduce hospitalizations.

3—Screening, Brief Intervention, and Referral to Treatment

Research shows people with mental health or substance use issues may have difficulty managing their chronic health conditions. Worsening chronic conditions can lead to preventable hospitalizations. To reduce these, we work to increase the use of universal and evidence-based approaches like screening, brief intervention, and referral to treatment (SBIRT), and motivational interviewing (MI). We assessed our partners to understand their use of SBIRT and MI, conducted community trainings, and offered technical assistance to those who want to improve their screening and referral to treatment approaches. We are also compiling a list of behavioral health resources to share with community partners.

SBIRT and MI Goals

Increase number of patients screened and referred to treatment.

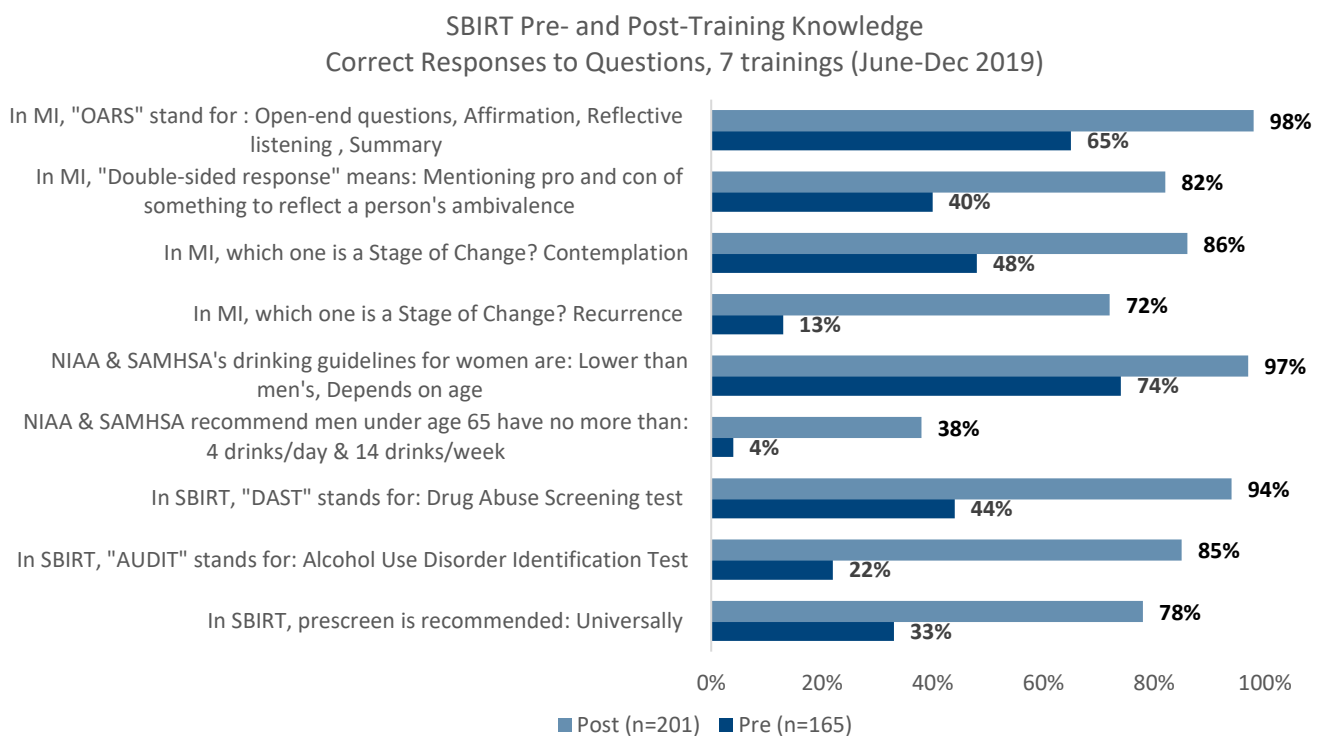
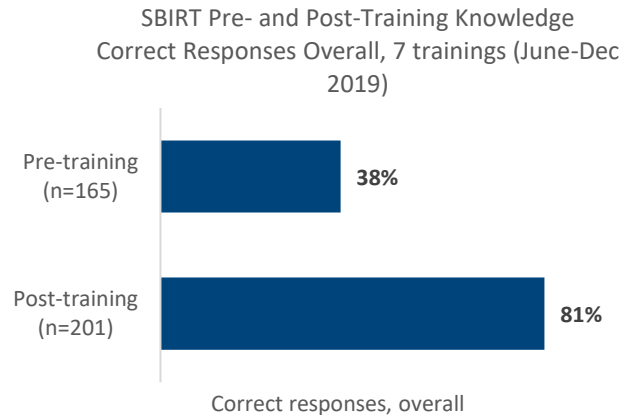
Increase resources available in the 6 PPH zip codes.

Provide prevention education about tobacco, alcohol, other drugs, and depression.

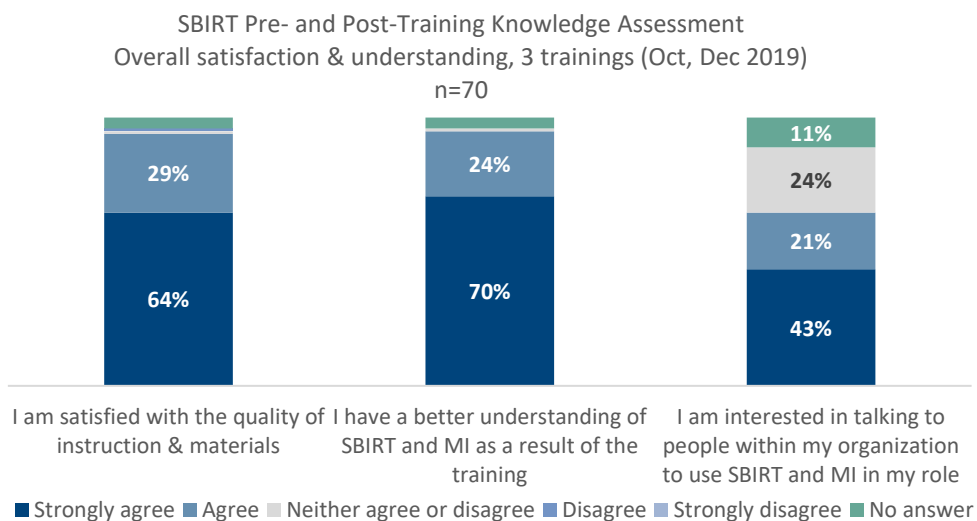
We conducted online and in-person assessments in 2018 and 2019 to identify tools our community partners used to screen and refer, and to better understand their organizational capacity for SBIRT and MI. Assessments showed a lot of variation in organizations' screening and referral practices and abilities.

With support from Health Department PPH staff, the Korean Women's Association (KWA) facilitated 7 SBIRT and MI trainings between June and December 2019. Trainings were free and open to PPH partner organizations and other partners of TPCHD or KWA. More than 200 people attended the trainings, including staff from 4 of our 5 primary PPH partner organizations (Community Health Care, CHI Franciscan Health, MultiCare Health System, and Sea Mar Community Health Care Centers).

The trainings increased attendees' knowledge about SBIRT and MI. Among those who responded to the post-training assessment, the overall percent of correct responses was 81% compared to only 38% before the training.



In the October and December 2019 trainings, we added questions to assess satisfaction with the training and interest in increasing the use of SBIRT and MI in their role. Ninety-three percent of respondents were satisfied with the quality of instruction and the materials. Only 64%, however, said they were "interested in talking to people within my organization to use SBIRT and MI in my role," which may indicate the need for future support or technical assistance.



Accomplishments

- Trained more than 200 healthcare providers and staff from more than 50 organizations in SBIRT and MI.
- Trainings increased provider and staff knowledge and confidence in the use of SBIRT and MI.

Challenges and Lessons

- In fall 2019, we conducted a follow-up to the 2018 organizational self-assessment, but responses were limited and incomplete. This impacted our ability to understand changes that may have resulted from our training and the need for ongoing support and technical assistance.
- Health systems tend to use standard approaches to screening, but referral to treatment across our healthcare system is harder to understand and influence. We need to develop ways to measure how partners currently systematize referral to treatment if we expect to measure a change due to our project activities.
- Our team's capacity to assess community partners' needs and provide technical assistance has been limited by our COVID-19 response. There was interest in technical assistance from the partners, but COVID-19 limited their availability as well.

What's Next in Year 3

In the coming year, we will continue to learn about partner organizations' SBIRT and MI practices and needs for support, including tobacco cessation and treatment of depression. We will give technical assistance to those who need support to sustain and improve their practices. We will create a Referral to Treatment tool to share with community partners. The tool will build on current clinic resources and include additional resources for tobacco cessation, drug and alcohol treatment, and mental healthcare, highlighting accessible and culturally relevant service providers. We also plan to assess how partner clinics screen for social and economic needs, make recommendations for the standardization of social needs screening, and encourage widespread screening among our community partners.

4—Additional Planning for Year 3

In addition to the work described above, since the fall of 2019, we have been planning for the next year of project activities. Four areas of work are:

1. **Identifying a cohort of patients with heart failure.** Based on community-level data that show PPH increasing among patients with heart failure, we work to identify a cohort of patients in partner health systems and community clinics for focused intervention related to immunizations and other activities.
2. **Assessing how to help reduce the burden of COVID-19.** Internally and with our PPH partners, we are discussing ways we can better align PPH project activities with efforts to address COVID-19, to lessen the impacts on vulnerable communities. We know that reducing PPH is important for maintaining hospital capacity during the COVID-19 pandemic.
3. **Convening and engaging a group to improve access to Community Health Workers (CHW).** The group of key partners are developing ways to better understand CHW capacity in our community, to increase patient access to CHWs, and to potentially support and train CHWs in our community.
4. **Improving our evaluation capacity.** We're enhancing our evaluation methods to include SMART goals and improved data analysis plans, which will allow us to better understand the project's outcomes.

Summary and What's Next

The PPH project:

- Increased access to bacterial pneumonia and flu vaccine for vulnerable people living in our community.
- Trained community providers and staff in evidence-based approaches to screening and referral.
- Strengthened relationships and understanding among community partners to improve coordination and access to primary care.

As the overall rate of PPH in our zip codes has decreased since 2013, PPH due to heart failure steadily increased. We also recognize the ongoing impact the COVID-19 emergency has on already vulnerable community members. Our year 3 strategies will expand on and refine our work. We will focus on people in our zip codes experiencing heart failure and will align with efforts to lessen the impacts of COVID-19.

In year 3 we will:

- Seek opportunities to align our PPH efforts with community efforts to lessen the impact of COVID-19 among our most vulnerable community members and maintain hospital capacity.
- Work with community partners to implement interventions that address issues impacting people with heart failure.
- Provide technical assistance and resources to increase our partners' capacity for screening and referral to treatment for vulnerable patients.
- Support community partners to improve the way Community Health Workers (CHW) are supported and deployed in our community to address the social and economic needs of patients.
- Enhance our approach to data collection and analysis, to measure and understand impacts, and improve project activities more effectively.