

# Washington County Annual Performance Report for 2006

## Public Health and Environment

### Mission

To protect, promote, and improve our community's health, environment, safety, and well being.

In seeking to fulfill this mission, the department strives to be a leader and innovator working in partnership with our communities to achieve optimal health status for Washington County residents.

### Goals

1. Assure a strong public health system. *(New measures under development.)*
2. Promote healthy communities and eliminate health disparities throughout the life span.
3. Prevent the spread of infectious disease.
4. Make environments safe and healthy.
5. Prepare for disasters and emergencies.
6. Help all people get quality health services.

### Key Learnings

- The department fully expected to purchase and implement a new electronic information system for environmental health and infectious disease programs in 2006; however, it was determined that a thorough analysis of the business processes needed to be completed first. This was an important strategy, because it will assure that the new system will be a tool to support efficient or effective work processes. The new system is planned to be operational in 2007 and it will be able to collect data for accurate and timely performance measurement.
- New service delivery models for providing immunizations need to be explored in order to maintain low administrative costs. The opening of the service centers creates more opportunities for improvements in this area.
- Employees are not as prepared for responding to public health emergencies as they need to be. Improvement in training programs and more testing of the notification system need to be put in place.
- The Household Hazardous Waste Facility continues to see increases in citizen participation and waste collection. The selection of a new facility site in 2007 will be vital to assuring ongoing success of this program.

## Objective and Performance Measurement Summary

**Goal 1:** Assure a strong public health system.

**Objective 1.1:** Department staff will be trained and prepared to respond effectively in the event of a public health emergency.

### Objective 1.1 Summary and Analysis:

The Public Health and Environment Department (PHE) works to prepare for, prevent, respond to, and recover from emergencies in the county such as natural disasters that affect public health and public safety. Emergency management staff receive a high level of training to prepare for and respond to these public health emergencies. A majority of other department staff do not have any training in emergency preparedness. The department will strive to have all staff trained at a basic level of emergency preparedness.

To develop the department's response capacity, all staff will be trained in the following on-line courses: Incident Command System 100, Incident Command System 200 and National Incident Management System (NIMS), An Introduction IS-700. After receiving this initial training, all staff will annually complete a refresher/review of the main training components (beginning in 2007). In 2006 only 68 percent of all staff were trained, because initially only managers, nurses, and environmental specialists were targeted for training. In 2007 all staff (except jail nurses) will be targeted for training to meet federal mandate. (*Measure 1.1.1*)

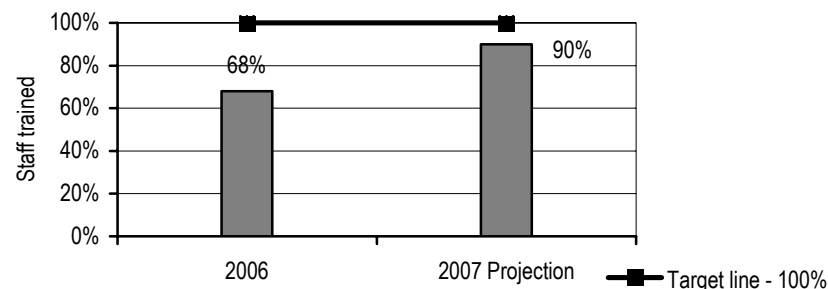
One method that will be used to measure the effectiveness of these trainings is a post-test developed by the department. All staff will complete the post-test following the courses (beginning in 2007). This post-test provides us with an assessment of basic understanding of NIMS concepts and preparedness to respond to an emergency/disaster under NIMS implementation. (*Measure 1.1.2*)

The second method will be to measure response to an automated staff notification system. This system is used to notify staff in the event of an emergency/disaster and request their response. The department will test/activate the system on a quarterly basis. Timeliness and accuracy of staff response will be measured for each occurrence for which the system is activated. (*Measure 1.1.3*)

**Target:** 100 percent of staff will complete initial training or refresher in the following courses: ICS-100, ICS-200 and NIMS IS-700. 100 percent of staff will correctly answer 80 percent of department's post-training questions that demonstrate a basic understanding of NIMS concepts and how to respond to an emergency/disaster under NIMS implementation. Ninety percent of staff will successfully respond to an emergency call within two hours of receipt of notification.

**Projection:** 90 percent of new staff will complete initial training within three months of employment and 90 percent of current staff will complete refresher or initial program in 2007. Baseline measures will be determined in 2007 for the post-training questions and automated notification system response rates.

#### Measure 1.1.1: Percent of staff completing initial or refresher courses



Source: PHE National Incident Management System (NIMS) Training Registration Record

**Measure 1.1.2:** Percent of staff correctly answering 80 percent of post-training questions correctly. (Baseline to be determined in 2007.)

**Measure 1.1.3:** Percent of staff successfully responding to an emergency call within two hours of receipt of notification. (Baseline to be determined in 2007.)

**Goal 2:** Promote healthy communities and eliminate health disparities throughout the life span.

**Objective 2.1:** Improve the health, knowledge, behavior, and status of clients who receive home visiting services from public health nurses.

**Objective 2.1 Summary and Analysis:**

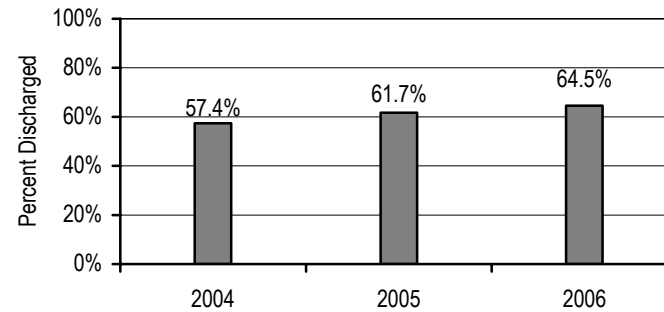
Family Health Public Health nurses (PHNs) make home visits to pregnant and parenting families and their children. Computerized charting allows PHNs to document client problems and outcomes. In addition to their pregnancy and parenting health concerns, the most common client problems the nurses addressed were (in order of frequency) poverty, housing, family planning, substance use, abuse, mental health, and neglect. Of 637 clients served in 2006, 345 clients (187 families) were discharged during the year and were included in the measures.

To evaluate the effectiveness of the nursing services, the department uses a standardized instrument to document client outcomes. Using this instrument, PHNs rate (on a scale of one to five) client knowledge, behavior, and status for each problem at the time of admission and the time of discharge. For example, a status score of one (1) = extreme signs and symptoms; five (5) = no signs and symptoms. The department's goal is to help clients attain status scores of four or more at discharge (minimal signs and symptoms). Over the past three years, the percent of status scores that were 4 or more on discharge has increased from 57.4 percent to 64.5 percent. The department ensures the reliability of the evaluation data through ongoing staff training and peer assessments. (*Measure 2.1.1*)

Research on Washington County client outcomes demonstrated that when higher need families receive more visits, their outcomes improve. The number of home visits a client receives is related to the number of PHN full time equivalents (FTE) available. Measure 2.1.2 shows that as the PHN FTEs increased, so did the number of home visits.

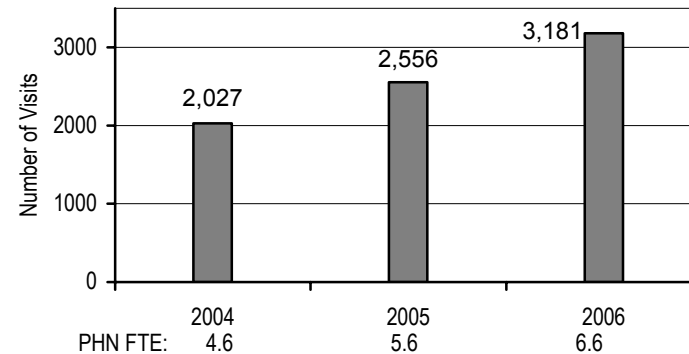
In summer 2007 Family Health Nursing home visiting services will be transitioning to a new model of service delivery to align with the metro-wide child maltreatment prevention initiative, the Metro Alliance for Healthy Families (MAHF). This model will help us identify the families most in need of services, and increase the service intensity provided to those families. Due to these changes, we expect that PHNs may serve fewer families more intensively for longer time periods, and that we will track additional outcome indicators as part of the MAHF evaluation process.

**Measure 2.1.1: Percent of discharged clients with average discharge score of four or more**



Source: PHE Care Facts Client Records

**Measure 2.1.2: Number of home visits and Public Health Nurse (PHN) FTEs**



Source: PHE Budget and Expenditure Reports

**Goal 3:** Prevent the spread of infectious disease.

**Objective 3.1:** Increase the percentage of two-year olds that have received necessary immunizations.

**Objective 3.1 Summary and Analysis:**

The department provides monthly public immunization clinics that serve people who cannot afford immunizations at private health care settings. This is also a strategy to improve overall immunization rates of children in Washington County; if affordable immunization services were not available, these children may go unimmunized. The Department also provides annual influenza immunizations to at-risk disabled and elderly residents.

In 2006 a total of 1,679 vaccines (568 at monthly clinics and 1,111 at influenza clinics) were given. The number of vaccines given annually has declined over the past few years due to improved access to health care. A delay in delivery of influenza vaccine in 2006 also had a significant impact. State rules allow the department to charge an administrative fee for immunizations. This fee can be waived in case of extreme hardship. The administrative fee can include nurse hours at clinics, travel, and supplies.

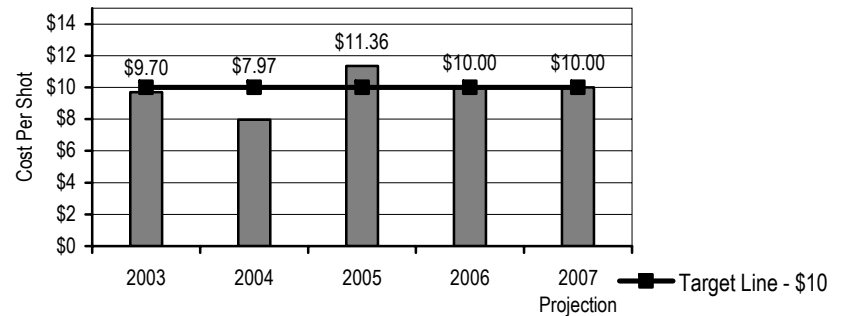
The target is to keep the administrative cost at or below \$10 per immunization. This level keeps the cost of immunizations affordable and it is comparable to what other local public health departments are charging. Even though the number of vaccines given dropped in 2006, the administrative cost was kept to \$10. However, this will be a bigger challenge in 2007 as numbers are expected to continue to decline. In 2007 new service delivery models will be explored as the opening of the service centers will provide opportunities for changes. A survey of 24 immunization clinic participants was completed in 2006 and we will utilize the responses as we look at new service models. (Measure 3.1.1)

Another strategy to measure and improve immunization rates is recruiting primary and pediatric clinics to join the statewide immunization registry, MIIC (Minnesota Immunization Information Connection). Currently 12 out of 19 clinics (63 percent) are submitting data into the registry. Through our Immunization Practices Improvement (IPI) visits, we have found that many clinics are not submitting complete historical records. Therefore, the data in the registry is incomplete. In 2007 the department will continue to recruit more clinics and will work with the other participating clinics to improve the amount of data they are currently submitting. Once the data is complete, it will allow better measurement of the immunization rates for two-year olds. (Measure 3.1.2)

**Target:** Administrative cost of each individual immunization will not exceed \$10. One hundred percent participation by clinics in MIIC (Minnesota Immunization Information Connection), including complete historical data.

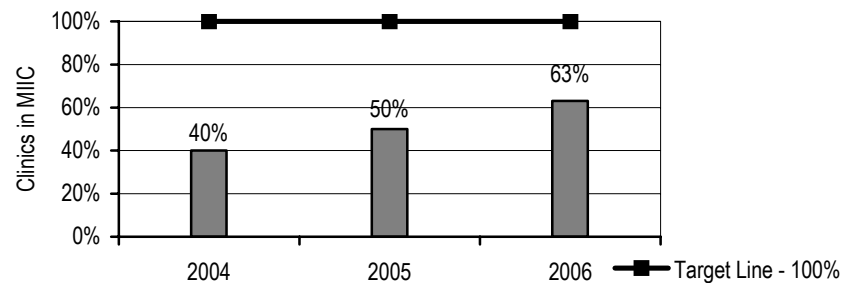
**Projection:** The number of immunizations given at public clinics is likely to continue to decrease in 2007. This will create a challenge to keep the cost per shot below \$10. By the end of 2007, 90 percent of clinics will be participating in MIIC.

**Measure 3.1.1: Administrative cost of immunizations**



Source: PHE immunization program data

**Measure 3.1.2: Recruitment of clinics in Washington County to join the statewide immunization registry, MIIC (Minnesota Immunization Information Connection)**



Source: MIIC Clinic participation report.

**Goal 4:** Make environments safe and healthy.

**Objective 4.1:** To prevent new soil and water contamination by assuring proper disposal of household hazardous waste (HHW).

**Objective 4.1 Summary and Analysis:**

The department operates a household hazardous waste facility and remote collection events for citizens to dispose of hazardous products.

Participation increased 3.5 percent from 16,491 in 2005 to 17,072 in 2006. Remote event collection participation increased by 43 percent from 1,512 to 2,678. This increase is primarily due to coordinating collection events with city clean-up events.

Waste volumes collected and managed increased 6 percent from 1,108,097 pounds in 2005 to 1,179,842 pounds in 2006. The amount of hazardous waste shipped however, increased by 13 percent from 578,233 pounds in 2005 to 668,044 pounds in 2006, this had a direct affect in the 21 percent increase in waste disposal costs. Increased waste volumes and limited waste storage space directly resulted in the significant increase in waste disposal costs. The county is currently in the planning process to build/purchase a new facility that will allow improved management of the waste which may result in lower disposal costs. (Measure 4.1.1)

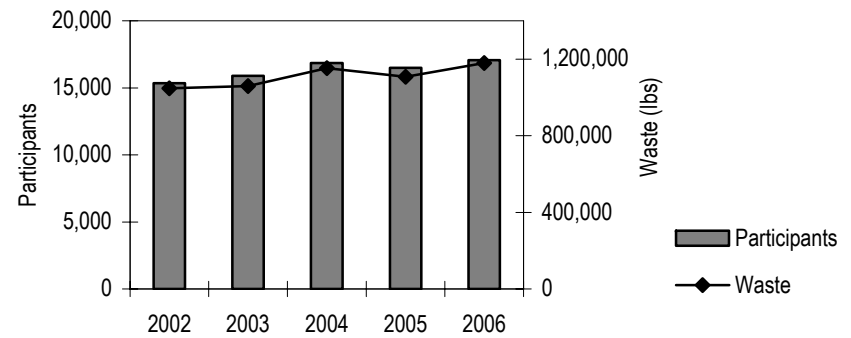
Even though there was a 3.5 percent increase in participation, the increase in waste disposal costs resulted in a 12 percent increase in the cost per participant from 2005 to 2006. However, this cost still remains one of the lowest costs per participant programs in the state. Additionally, public education, and program marketing expenses increased by 265 percent, because of the need to inform residents that the facility was still open despite construction, and to promote city/county clean-up coordinated events. (Measure 4.1.2)

**Target:** Limit annual increase of the cost per participant to 3 percent and annually increase participation and waste collected by 3 percent.

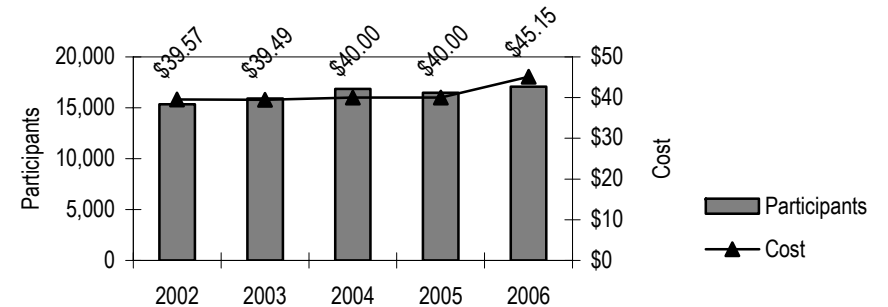
**Projection:** For the year 2007 the cost per participant will be \$46.50. The county expects to have 17,585 participants and to collect 1,215,200 pounds of waste.

The new facility is expected to open in 2008 which may allow the cost per participant in 2008 to remain at or below \$46.50. The county expects to see 18,120 participants in 2008 (3 percent increase from 2007).

**Measure 4.1.1: Total Household Hazardous Waste facility participants and waste collected**



**Measure 4.1.2: Total Household Hazardous Waste facility participants and cost per participant**



Source: PHE Household Hazardous Waste program data

**Goal 5:** Prepare for disasters and emergencies.

**Objective 5.1:** Respond effectively to Health Alert Network (HAN) messages from the Minnesota Department of Health (MDH).

**Objective 5.1 Summary and Analysis:**

The Health Alert Network (HAN) is used to communicate urgent information on public health alerts to county health care providers by email and broadcast fax. The HAN alerts originate from the Minnesota Department of Health (MDH) or locally and are sent to health care providers by the department. When the MDH sends a HAN alert to the PHE, the department must acknowledge receipt of the message within two hours. That message is then sent to health care providers in the county and they are asked to acknowledge their receipt within two business hours.

To measure the timeliness of the HAN health care providers' responses, the department will determine the rate of response from all recipients for each test, alert, and survey. A cumulative median response rate will be reported annually as a performance measure. Measuring of these indicators began in March 2006. There were a total of seven alerts, two tests, and one survey completed. (*Measure 5.1.1*)

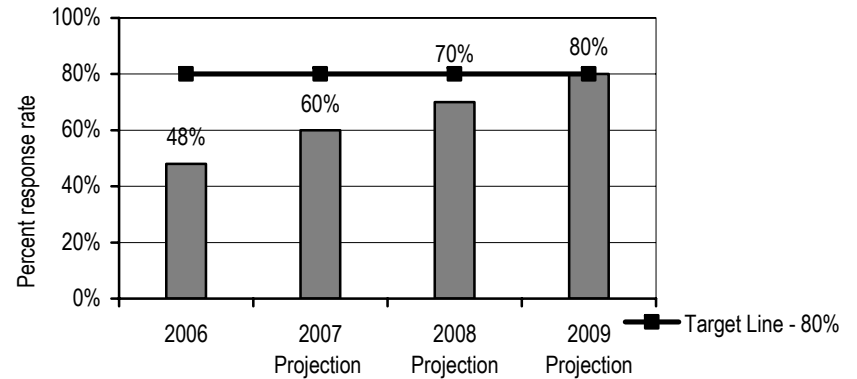
The department was well below meeting that target in 2006. This is due to the system still being a new communication approach for health care providers and staff turnover at clinics. In 2007, an improvement in the response rate will be achieved by providing additional education on the system to providers and assisting clinics in removing response barriers in their settings.

The MDH tracks the response times for its HAN messages for each local public health department. The department is expected to respond to messages within two hours on a 24/7 basis. The department's response rate in 2006 was 87 percent, which is below the target. To improve this rate, procedures for responding to messages outside of normal business hours will be analyzed and adjustments will be made. (*Measure 5.1.2*)

**Target:** Eighty percent of health care providers will respond to the department's HAN messages (tests, alerts, and surveys) within two business hours. The department will respond to the MDH's HAN messages within two hours (24/7) 95 percent of the time. These targets have been set by the MDH.

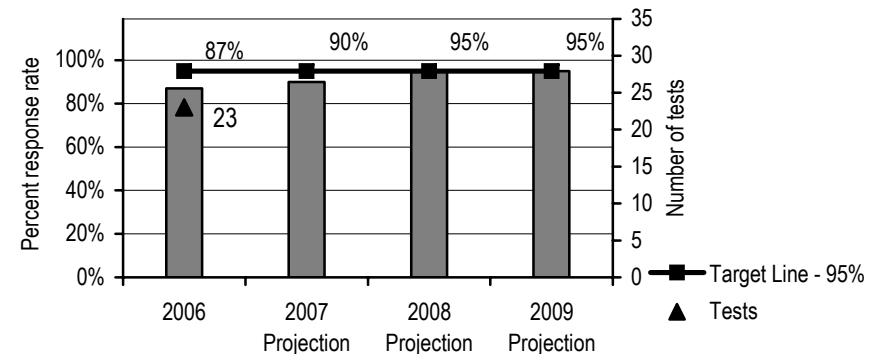
**Projection:** Improve health care provider response rate to 60 percent in 2007. This will be achieved through education to health care providers and reducing response barriers in clinic settings. Improve PHE's response rate to 90 percent with improvement of the after hours/week-end procedures.

**Measure 5.1.1: Health care provider response rate to PHE's Health Alert Network messages**



Source: PHE HAN Alert Response Records

**Measure 5.1.2: PHE response rate to MDH's Health Alert Network messages**



Source: MDH Workspace HAN Response Results for Washington County.

**Goal 6:** Help all people get quality health services.

**Objective 6.1:** Distribute the “Resource Guide for Seniors and Persons with Disabilities in Washington County” to inform the community of health services available to seniors and persons with disabilities.

**Objective 6.1 Summary and Analysis:**

A revised publication of the “Resource Guide for Seniors and Persons with Disabilities in Washington County” was released in June 2006. It provides accurate and up-to-date information on community resources for these groups. The guide was updated with a more extensive list of services, an index, and descriptions of services. These updates increase the guide to 77 pages from 29 pages to identify more resources that help to increase independence and decrease isolation for these persons. Printed copies of the guide are available from the department and the guide is also available online through the county website.

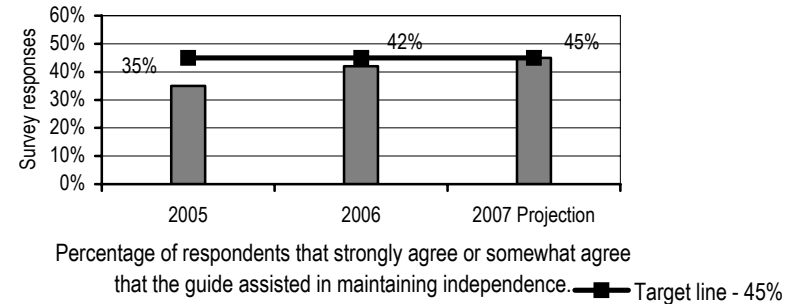
Each guide includes a survey to allow recipients to provide feedback. Two years of survey results have established that the resource guide is accurate, easy to read, and helpful. In response to the statement “The guide assisted me in keeping my independence at home” in 2005, 35 percent strongly agreed or somewhat agreed. In 2006, 42 percent strongly agreed or somewhat agreed with the statement. Efforts continue to be made to increase the amount of surveys completed and sent back to the department to ensure the guide will continue to assist the elderly and disabled to remain at home. (*Measure 6.1.1*)

In 2005 there were 1,050 guides distributed throughout the county to individuals, families, community groups, hospitals, and others. The estimated average cost to maintain a person in a nursing facility in Minnesota for 2006 was \$47,815. In 2006 there were 1,922 guides distributed at a cost of \$9,689, which is less than the cost of maintaining one individual in a nursing home for three months. If the guide helps defer or prevent nursing facility placement for at least one individual, we have more than recovered the cost of this intervention. (*Measure 6.1.2*)

**Target:** Forty-five percent of the survey respondents will report that they strongly agree or somewhat agree the guide has “assisted me in keeping my independence at home”. Strategically distribute the guide annually to 2,200 seniors and persons with disabilities according to the department’s distribution plan. Maintain the cost of the guide at \$4.50 or below per printed guide.

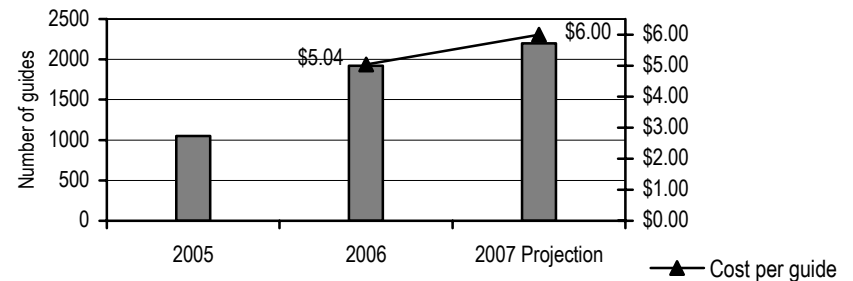
**Projection:** Maintain 45 percent of the survey respondents that strongly agree and somewhat agree that the guide has “assisted me in keeping my independence at home”. Twenty-two hundred senior resource guides to be distributed in 2007. Cost per guide may increase temporarily to approximately \$6.00 per guide due to increased outreach to distributors of guide. Cost of guide to decrease in future due to increased education regarding availability of guide on the county website. Staff time should also decrease as less staff time is required for maintaining, versus the initial creation of the guide.

**Measure 6.1.1: Resource Guide survey responses**



Source: Resource Guide Evaluation Form Data Summary

**Measure 6.1.2: Number of guides distributed and cost per guide**



Source: PHE’s Distribution Tracking System and Financial Reports for Business Unit