

# Washington County Annual Performance Report for 2005

## 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. To assure an adequate local public health infrastructure.
2. To promote healthy communities and healthy behaviors.
3. To prevent the spread of infectious disease.
4. To protect against environmental health hazards.
5. To prepare for and respond to disasters and assist communities in recovery.
6. To assure the quality and accessibility of health services.

### Key Learnings

The State Community Health Services Advisory Committee (SCHSAC) and the Minnesota Department of Health adopted the Local Public Health Planning and Performance Measurement System (LPH PPMRS) in 2005. This new system was developed in order to provide ongoing measurement, accountability, and quality improvement of local public health departments. The impacts to our performance measurement system include the following:

- The department added new or revised existing performance measures to create better alignment with the statewide measures.
- Some of the department's existing electronic data and information systems (especially those related to environmental health services and infectious disease control) do not have the capacity to provide performance measurement information at the level we need in order to comply with state requirements and to assure continuity of business in case of an emergency. The department will be considering the purchase of a commercial electronic information system in 2006 to address this problem.
- A special project planner staff position was added during the last quarter of 2005. The planner was assigned to improve the performance measurement process within the department and assist in data management activities. This position has been vital to assuring compliance with the new state requirements across the department and building support for performance measurement in all program areas.

## Objective and Performance Measurement Summary

**Goal 1:** To assure an adequate local public health infrastructure.

**Objective 1.1:** To improve the capacity of staff to respond effectively in the event of a public health emergency.

### Objective 1.1 Summary and Analysis:

The department 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 Public Health staff trained at a basic level of emergency preparedness.

The federal government established a requirement for management of domestic emergency incidents. To address this requirement, the department will be training all public health staff (in addition to various county emergency personnel) to ensure preparedness for Washington County in the event of an emergency. All Public Health staff will be trained in the following: Incident Command System ICS-100, Incident Command System ICS-200 and National Incident Management System (NIMS), An Introduction - Independent Study IS-700. All Public Health managers will be trained in Introduction to National Response Plan (NRP) IS-800.

ICS-100 provides training on and resources for personnel who require a basic understanding of the ICS. ICS-200 provides training on and resources for personnel who are likely to assume a supervisory position within the ICS. The primary target audiences are response personnel at the supervisory level. However, this is a requirement of all current or new employees in first response disciplines. The NIMS IS-700 training explains the purpose, principles, key components, and benefits of NIMS. Minnesota recognizes the NIMS as the standard for incident management. This system integrates effective practices in emergency preparedness and response into a comprehensive framework for incident management.

Introduction to NRP IS-800 provides training to emergency managers on and resources for the NRP. The NRP specifies how the resources of the federal government will work with other government entities and the private sector to respond to incidents of national significance.

During 2006 the department will administer course evaluations to all Public Health staff that will be trained in ICS-100, ICS-200 and NIMS IS-700. The results will be included in the 2006 Annual Performance Report. Also, the cost per training will be measured starting in 2006.

**Target:** By the end of 2006, 100% of Public Health staff will be trained in ICS-100, ICS-200 and NIMS IS-700. By the end of 2006, 100% of Public Health managers will be trained in NRP IS-800.

**Projection:** Upon completion of training, 100% of Public Health staff will have a basic understanding of emergency preparedness to be able to respond effectively in a public health emergency.

**Goal 2:** To promote healthy communities and healthy behaviors.

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

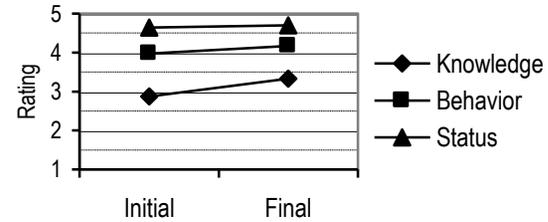
**Objective 2.1 Summary and Analysis:**

Family Health Public Health nurses (PHNs) serve 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, mental health, substance use, abuse, and neglect. Over 60% of the clients were under the age of 21 and only 19% were married. Of 468 clients served in 2005, 371 clients (180 families) were discharged during the year and were included in the measures.

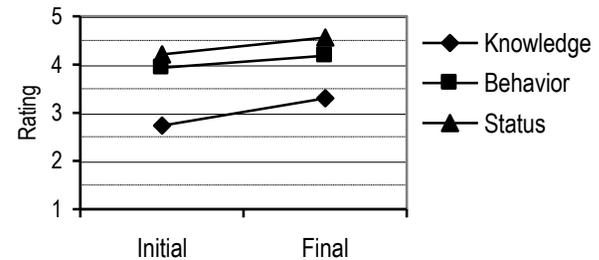
To evaluate the effectiveness of the nursing services, the department uses a standardized instrument to document client outcomes. Using this instrument, PHNs rate (on a scale of 1 to 5) the change in a client's knowledge, behavior, and status (KBS) for each problem at the time of admission and the time of discharge. For example, a score of 1 = no knowledge; 5 = superior knowledge. The department's goal is to annually maintain an average discharge score of 4 or more for all clients discharged.

Measures 2.11., 2.1.2, 2.1.3 illustrate the change in client scores from admission to discharge for the problems of parenting, pregnancy/postpartum, and child growth and development. For most of the client health problems addressed by PHNs, there is a statistically significant improvement in the client's knowledge, behavior, and status related to that problem. Problems for which the average status rating at discharge did not meet the department goal included income, family planning, and substance use.

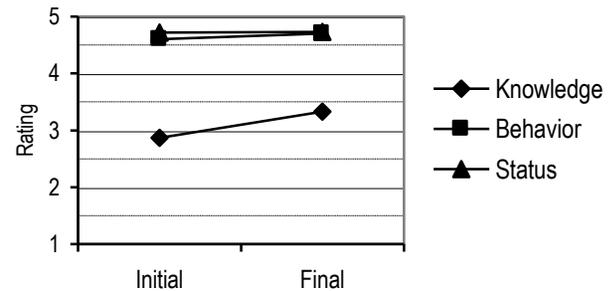
**Measure 2.1.1: Knowledge, behavior and status (KBS) rating for parenting problem in 2005 (n=166)**



**Measure 2.1.2: KBS rating for pregnancy/postpartum problem in 2005 (n=141)**



**Measure 2.1.3: KBS rating for growth and development problem in 2005 (n=179)**



## Objective 2.1 Summary and Analysis continued:

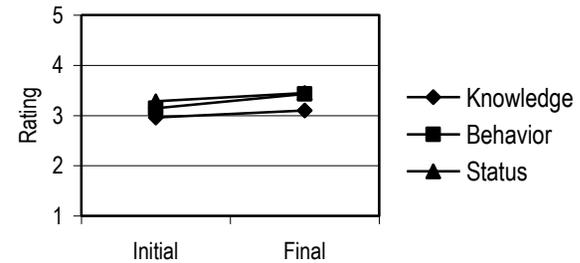
Measure 2.1.4 illustrates the lack of significant change for the substance use problem. Clients facing substance use challenges did not show improvement in their status related to substance use, even though an increase was observed in knowledge and behavior. Substance use is particularly difficult for families with young children because of the addictions, financial crises, and child neglect that often accompany it. Similarly, no change was observed in parent knowledge related to child neglect. Children with failure to thrive or medical neglect situations receive high levels of PHN surveillance and case management to ensure their safety.

Nursing positions were eliminated because of funding losses in 2003 and 2004. The shortage of PHN home visiting FTE resulted in less ability to seek out and serve the most challenged of the eligible families as shown below.

Currently, PHNs are serving clients with increasing challenges and needs due to increasing unemployment, poverty, mental health problems, and drug use. Research on Washington County client outcomes demonstrates that when higher needs families receive more visits, their outcomes improve (Source: Monsen, K.A., "Linking Public Health Nurse Home Visiting Interventions to Client Outcomes" - unpublished doctoral dissertation, University of Minnesota, 2006). To continue to provide the level of service that effectively prevents child maltreatment, PHNs need to provide more visits to more families. However, our staffing levels have not been able to keep pace with the growth in the eligible population.

The department is working with public health and human services partners in the Metro Alliance for Healthy Families to document the benefits of home visiting early intervention in terms of dollars saved in out of home placement. Further economic analysis of the benefits of this home visiting program will be provided in the 2006 Annual Performance Report.

### Measure 2.1.4: KBS rating for substance abuse problem in 2005 (n=69)



Source: Family Health client records.

### Key statistics regarding Public Health nurses

|   | 2002  | 2003  | 2004  | 2005  |
|---|-------|-------|-------|-------|
| Public Health nurses FTEs   | 6.45  | 4.45  | 4.6   | 5.6   |
| Total number of families served and discharged                                    | 199   | 198   | 160   | 180   |
| Average number of visits per family   | 7.05  | 7.49  | 6.44  | 6.01  |
| Total number of eligible clients year-end Women, Infants, Children (WIC) caseload | 1,987 | 2,069 | 2,389 | 2,532 |

**Target:** Clients receiving PHN home visits will have an average KBS score of 4 or more at time of discharge. Increase the average number of visits to families with higher needs.

**Projection:** The number of families eligible for and needing PHN home visits is expected to increase annually.

**Goal 3:** To prevent the spread of infectious disease.

**Objective 3.1:** Increase the percentage of two-year olds that have been age appropriately immunized and decrease the cost of immunizations for public clinics.

**Objective 3.1 Summary and Analysis:**

In 2005 approximately 639 vaccines were given at regular, monthly public immunization clinics which primarily serve children. The number of vaccines given at public clinics has reached a plateau over the past few years as most people receive immunizations from private health care providers. Total cost of providing immunizations (including influenza) includes nurse hours at clinic, travel, and mileage, and cost per shot given. (*Measure 3.1.1.*) Public Health clinics serve people who are unemployed or uninsured as a strategy to improve overall immunization rates of children in Washington County. The only available measure of two-year old immunization levels is currently the daycare data provided to us by the Minnesota Department of Health. (*Measure 3.1.2*) Even though it represents only a portion of toddlers in the county, it is currently the best indicator available.

The department plans to survey participants at public immunization clinics held in 2006 to assess satisfaction with the clinics. The survey results will be included in the 2006 Annual Performance Report.

**Target:** Age-appropriate immunization levels of toddlers in daycare centers in Washington County will be equal to or exceed the statewide levels. Cost (excluding vaccines and syringes) of each individual immunization given at public clinics will be below \$12.

**Projection:** By 2010 the cost of each individual immunization given at public clinics will be below \$15 (excluding the cost of vaccines and syringes). By 2010 age-appropriate immunization levels of toddlers in daycare centers in Washington County will increase by 10% of the current county levels.

**Measure 3.1.1: Cost of immunizations administered through public clinics in Washington County**

|               | 2001     | 2002     | 2003     | 2004     | 2005     |
|---------------|----------|----------|----------|----------|----------|
| Total cost    | \$17,660 | \$24,005 | \$25,510 | \$22,052 | \$22,678 |
| Cost per shot | \$5.84   | \$9.57   | \$9.70   | \$7.97   | \$11.36* |

*Note: The cost per shot increase in 2005 was due to extra nurses working at clinics because of training needs and reduced number of immunizations.*

*Source: Public Health and Environment immunization program data*

**Measure 3.1.2: Immunization levels for toddlers in daycare centers in Washington County compared to statewide- percentage protected\* in 2004-2005**

| Age           | Enrollment     | DTP/td*** | Polio | MMR*** | Hib*** |
|---------------|----------------|-----------|-------|--------|--------|
| 12-24 Months. | County<br>413  | 74%       | 87%   | 86%    | 97%    |
|               | State<br>7,812 | 69%       | 82%   | 89%    | 97%    |

*Note: Toddlers include children ages 12-24 months.*

*\* Percentage protected represents children who received four or more doses of DTP/Td, three or more doses of polio vaccine, one dose of MMR vaccine on or after the first birthday, and one dose of Hib vaccine.*

*\*\* Percent of age eligible children completing vaccine series.*

*\*\*\* DTP/Td is Diphtheria, Tetanus and Pertussis; MMR is Measles, Mumps and Rubella; Hib is Haemophilus and Influenza Type B.*

*Source: Minnesota Department of Health*

**Goal 4:** To protect against environmental health hazards.

**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 county operates a household hazardous waste (HHW) facility and remote collection events for citizens to dispose of hazardous products. Both waste collected and participation have been increasing since the facility started operation in 1994. The amount of waste collected over the last five years has increased by 65%. However, in 2005 there was a 4% decrease in the amount of waste collected. The decrease can be attributed to reduced participation at remote collection events. (*Measures 4.1.2*)

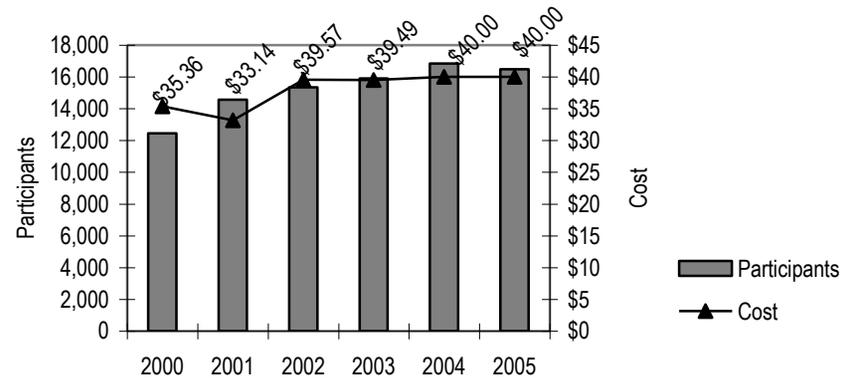
The cost per participant since 2000 has remained relatively constant, at or below \$40. Program and operational efficiencies have kept the cost per participant at one of the lowest in the state. HHW participation has increased from 12,447 participants in 2000 to 16,491 participants in 2005. Residential growth is a factor with participation. Since 2000 the county residential population has increased by over 16,000 residents. (*Measure 4.1.1*)

Efforts to increase participation through public education are ongoing. This includes mailing of the Environmental Update and Trash Today newsletters to all county residents twice per year. Also, a new Recycling and Disposal Guide, which highlights the facility and its services, will be going out to 50,000 residents in 2006. To assess effectiveness of these efforts as related to participation at and awareness of the HHW facility, the department will conduct two customer opinion surveys during 2006. The survey results will included in the 2006 Annual Performance Report.

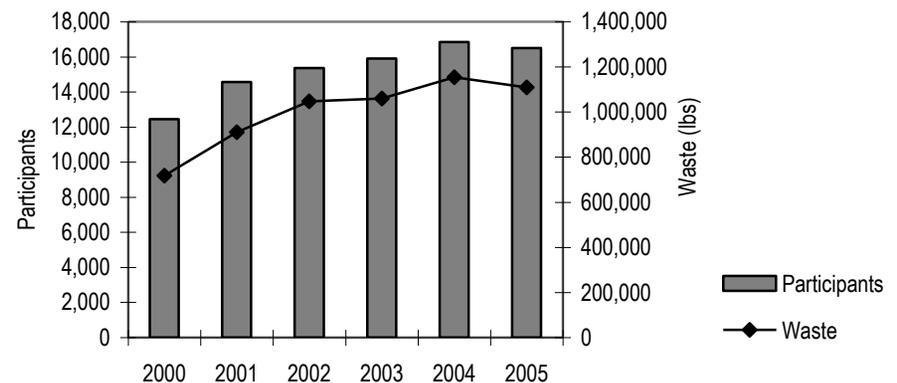
**Target:** The cost per participant in 2006 will be \$41.60 (based on 4% average increase) for residents using the HHW facility. In 2006 the number of participants is expected to increase by 3%, or up to 16,986 participants.

**Projection:** The cost per participant in 2007 is expected to be at or below \$43.20 for residents using the HHW facility. In 2007 the number of participants is expected to increase again by 3%, or up to 17,496 participants.

**Measure 4.1.1: Total HHW participants and cost per participant**



**Measure 4.1.2: Total HHW participants and waste collected**



Source: Public Health and Environment HHW program data

**Goal 5:** To prepare for and respond to disasters and assist communities in recovery.

**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 by the department to communicate urgent information on alerts to county health care providers by broadcast fax and e-mail. The system is also used to communicate relevant and timely (non-alert) information on public health related activities of the department.

HAN alerts originate from Minnesota Department of Health (MDH) or Washington County and are sent to health care providers by the department. If the HAN alerts originate at the state, the department must acknowledge receipt of the alert to MDH within two hours. County health care providers are asked to respond to the department acknowledging receipt of an alert message within one business day.

Staff time is used for managing messages that go out to county health care providers. The department plans to measure the cost per message (staff dollars/hour) to run the system.

To measure customer service, the department plans to conduct a survey in 2006 using a small sample of county health care providers to obtain user satisfaction with the HAN system. The survey results will included in the 2006 Annual Performance Report.

**Target:** The department will respond to 100% of MDH's HAN messages within two hours of receipt. Transmit appropriate MDH HAN messages and local information to 90% of targeted health care providers in the county within two hours of receipt of message. 40% of targeted health care providers will respond to county's HAN message within two business hours of receipt.

**Projection:** Maintain 100% response to MDH HAN messages within two hours of receipt. Transmit appropriate MDH HAN messages and local information to 100% of targeted health care providers in the county within two hours of receipt of message. 60% of targeted health care providers respond to county's HAN message within two business hours of receipt.

**Goal 6:** To assure the quality and accessibility of 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.

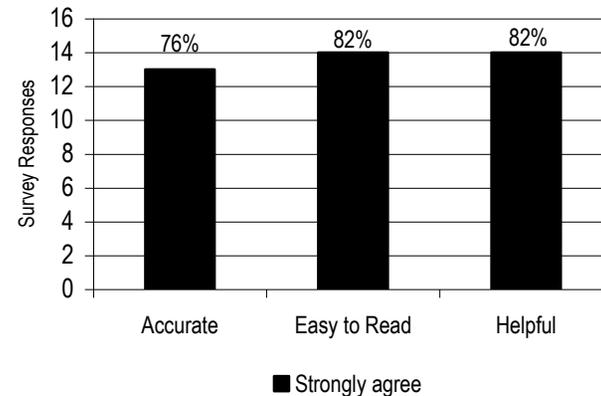
**Objective 6.1 Summary and Analysis:**

Washington County has a growing population of seniors and citizens with disabilities. The county senior population (age 65 and older) was 15,267 in 2000. A new publication called the “Resource Guide for Seniors and Persons with Disabilities in Washington County” was released in 2005. It provides accurate and up-to-date information on community resources for these groups. The 29-page booklet identifies 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 department web site.

In 2005 there were 1,050 guides distributed throughout the county to individuals, families, community groups, hospitals, and others. The printing cost per guide was \$1.50. Starting in 2006 cost of printing and staff time will be tracked through work orders to assess the full cost of maintaining the guide.

Each guide includes a survey to allow recipients to provide feedback. A total of 17 completed surveys were received by the department in 2005. Thirteen respondents (76%) strongly agree the guide is accurate and 14 respondents (82%) found it easy to read and helpful. In response to the statement “The resource guide assisted me in keeping my independence at home,” 35% strongly or somewhat agreed. This feedback will be reviewed and implemented as appropriate to update the guide. Also, efforts will be made to increase the amount of surveys completed and sent back to the department. (*Measure 6.1.1*)

**Measure 6.1.1: Resource Guide survey responses in 2005**



**Target:** Increase the amount of completed surveys returned to the department from guides distributed in 2006. Increase to 90% the survey respondents that strongly agree the guide is accurate, easy to read, and helpful in 2006.

**Projection:** Continue to increase the amount of completed surveys returned to the department from guides distributed. Maintain 90% of survey respondents that strongly agree the guide is accurate, easy to read, and helpful. Between 2006 and 2008 increase the number of guides distributed by 20%.