

5930 Funding Semi-Annual Progress Report: January - June 2008

Purpose

The purpose of this report is to update SRHD staff and management, Board of Health members, and other stakeholders of progress made towards demonstrating the performance measures conditional to receipt of the [E2SSB 5930](#) funding stream.

Overview

The 2007 Washington State legislature passed E2SSB 5930 and appropriated \$10 million per year for public health improvement for the 2008-2009 biennium. Spokane Regional Health District (SRHD) received \$520,000 of new funding under this bill. The legislature designated a panel of experts to recommend activities and services that local health jurisdictions should perform using these funds. The panel recommended that funds be used for new work (additional or enhanced) to impact the following three performance measures, in rank order:

Performance Measure #1 – Increase the uptake of new and under-used child and adolescent vaccines; specifically focusing improvement efforts and reporting on Varicella, Rotavirus, Human Papillomavirus (HPV) and pediatric Influenza vaccines.

Performance Measure #2 – Improve the timely, complete identification and standard, effective investigation of notifiable conditions per [WAC 246-101](#).

Performance Measure #3 – Develop and implement effective community and health care system interventions to address obesity and its consequent burden of chronic disease. Interventions may target worksites, schools, communities, or primary medical care.

Based upon gaps identified in public health service levels within Spokane County, the SRHD has allocated the 5930 funds towards services related to the first two performance measures and has established activities to support these efforts. For a summary of primary program activities, see Appendix A. A copy of the work plan that was submitted to the DOH can be found at <http://www.doh.wa.gov/PHIP/documents/5930PM/material/workplans/spokane.pdf>.

Executive Summary

The 5930 funding has enabled the SRHD to build capacity in the areas of immunization promotion and communicable disease control. Increasing immunization uptake in the community is challenging. As with most health services, health care providers serve a gatekeeper function. Though it is parents who make the final decision whether or not to vaccinate children, it is clinicians who provide the service, and research shows that provider recommendation is an important determinant in a parent's decision to vaccinate. To be most effective, interventions must target both parents and clinicians.

In 2008, the SRHD developed a plan for marketing immunizations and the Child Profile immunization registry to healthcare providers in the community. Staff has also completed development of a social marketing campaign to the general public. Both campaigns will be implemented in 2009. Several offsite influenza immunization clinics were carried out in the public school and childcare settings. The model established was found quite successful and will be utilized in an expanded effort in 2009 to provide childhood influenza immunizations, as well as catch-up immunizations to children who are behind the routine childhood immunization schedule. These subsequent efforts will be partially funded by a grant award that CD Prevention received November of 2008.

The SRHD Immunization Outreach program was awarded a \$153,000 3-year grant from the Group Health Foundation (GHF) to support immunization uptake in Spokane County. The funders felt strongly that by leveraging 5930 funds with GHF monies, a far greater impact could be made within the community. The GHF funds are being used to support a targeted effort within Spokane public schools to address parental hesitancy, to increase immunization compliance, and to decrease immunization exemptions through targeted social marketing and school-based immunization catch-up clinics. Staff will tailor the recently developed "Protect Yours" social marketing campaign to the school-based immunization efforts and will be using the immunization clinic model demonstrated with 5930 funds during the fall 2008 influenza immunization season.

The 5930 funding has also been used to build capacity for communicable disease prevention and control, specifically, control of sexually transmitted diseases. Reported cases of chlamydia in 2008 increased by 27% as compared to 2007 (a 10% increase overall was observed statewide). Though an increase in reported incidence is not desirable and seems counterintuitive, the increase in reported chlamydia is highlighted here as a success for two reasons.

First, this funding has enabled us to improve our data with regard to reported incidence of chlamydia. Historically, the SRHD has not had the staffing required to address all reported cases of gonorrhea and chlamydia. STD case report follow-up had been managed solely by one locally based Department of Health (DOH) STD field consultant. This person was responsible for supporting ten other counties in addition to Spokane and subsequently was only able to provide case follow-up services for syphilis and some gonorrhea cases.

Increased staffing made possible by the 5930 funding have enabled us to follow-up on all STD reports received. The SRHD implemented PHIMS-STDs, a secure, web-based reporting system, in February of this year. Prior to implementation of this system, the DOH Field Staff manually reported cases to the state Department of Health, which were then entered into a statewide database by DOH staff. SRHD is now responsible for inputting Spokane County case reports. Using this new reporting system, staff is now able to receive, follow-up on case reports with

missing information, and input all cases. Our current data demonstrates that our *reported* incidence of chlamydia is much higher than historical data indicates—STDs pose an even larger communicable disease burden than had been previously understood.

Second, due to this funding, we had the staffing capacity to develop and implement interventions, including targeted case investigations. One purpose of case investigation is to collect data regarding the epidemiology of the diseases which in turn drives prevention and control efforts. Another purpose is to identify other people at risk of infection and to facilitate 1) notifying them of their potential exposure to STDs and 2) getting them tested and treated. Research has shown that health department intervention is more successful than patient referral (patients are instructed to tell partner to seek testing) at ensuring that sex partners are notified and medically evaluated.

Prior to receipt of this funding, less than 1% of all reported chlamydia cases were interviewed and less than 40% of gonorrhea cases were interviewed. In the second half of 2008, staff initiated investigations on greater than 80% of all chlamydia cases. Due to efficiencies gained by use of PHIMS-STDs, the DOH Field Consultant is able to provide case investigation services to most gonorrhea cases. The DOH Field Consultant also continues to interview all syphilis cases in Spokane. Case investigation is likely to increase *reported* incidence in the short run, but serves to interrupt sustained transmission of STDs in the community, and reduce *true* incidence over time. As a result of our work, more people at risk of STDs are being tested and treated. In sum, our efforts at “case finding” are working.

The 5930 funding has enabled SRHD to significantly enhance performance with regards to immunization uptake and communicable disease control over the past year. Unfortunately, given our current economic climate, the stability of the 5930 funding stream and funding for public health in general is uncertain. Though final details are still forthcoming, the 5930 funding is being reduced by \$4 million statewide. The SRHD is expecting a reduction in funds by 20% or approximately \$105,000. The decrease in funding will certainly affect our current capacity to carry out our work plan in pursuit of meeting the 5930 performance measures. Staff and management will be working together over the next year to prioritize current program activities.

Progress towards Performance Measure #1 (state measurement):

Reporting Measure

IA: Number of doses of vaccine ordered by each LHJ

Vaccine	Baseline 2007	Progress 2008	# (%) Change Spokane	# / % Change WA
HPV	11,190	10,890	-300 (-2.68%)	10,200 (6%)
Rotavirus	4,520	10,120	5,600 (124%)	86,150 (119%)
Varicella	18,550	19,890	1,340 (7%)	-130 (-.04%)
*****	Baseline Sept-Apr 07-08	*****	Progress Sept-Apr 06-07	
Influenza	21,500	25,530	4,030 (19%)	49,830 (15%)

Summary: The SRHD has demonstrated significant progress towards this performance measure, particularly with regard to rotavirus. Rotavirus vaccine orders increased over 300% in the first six months of this project but subsequently leveled off. Varicella is considered a back-to-school immunization so an increase in both vaccines ordered and vaccinations documented in Child Profile was expected and realized in the second half of the year. Varicella vaccine ordering over all is expected to decrease as more children are caught up. The timing and amount of the decline is uncertain.

Influenza vaccinations are subject to seasonal ordering patterns as they are traditionally given in September through April of each year. Increases with regard to influenza were also expected and realized for second half of 2008, primarily due to promotion of the new Advisory Committee on Immunization Practices (ACIP) recommendation that all children aged 6 months to 18 years, as opposed to just those children at high risk of complications from the flu, receive an annual influenza vaccination beginning with the 2008—09 influenza season. The SRHD made a concerted marketing push late November and early December which we believe helped increase uptake of childhood influenza immunizations in Spokane.

Reporting Measure

IB: Number of doses administered as recorded in CHILD Profile

Vaccine	Baseline 2007	Progress 2008	# (%) Change Spokane	# / % Change WA
HPV	3,872	4,782	910 (24%)	39,712 (47%)
Rotavirus	656	4,785	4,129 (629%)	80,053 (237%)
Influenza	6,594	10,949	4,355 (66%)	107,177 (68%)
Varicella	7,609	13,214	5,605 (74%)	187,125 (38%)

Summary: CHILD Profile is designed to help ensure Washington’s children receive the preventive health care and immunizations they need. Two components meet this need, a state-

wide immunization registry for health care providers and a program of health promotion materials sent to parents of all children from birth to age six.

The Immunization Registry is a secure and web-based computer system that helps healthcare providers track children's immunizations. It helps parents and providers ensure that immunizations are up-to-date and an accurate record is available in an emergency or when families move or change providers. The registry, which is free to registered healthcare providers and other select users, also helps clinicians and office staff manage immunization reporting and respond to parent and school requests for immunization records. The system is the primary means of tracking childhood immunizations in Washington State, but is not used by all providers who provide children's immunizations.

Staff has focused initial marketing efforts on providers receiving no-cost vaccine for children through the Vaccines for Children (VFC) program. As of December 31, 2008 there were a total of 81 providers receiving vaccine from the state. Of these, 36 are registered to use Child Profile, but only 30 (37%) are routinely submitting data (immunizations administered). A data exchange process can be set up that sends batch data directly to CHILD Profile from an Electronic Medical Record (EMR), or from practice management/billing systems. Submitting data via exchange/interface processes eliminates the need for providers to have to input the same immunization record twice (once into the clinics billing or EMR system, and once into Child Profile). Staff has developed a master database of providers and has surveyed providers to identify the electronic medical record and billing systems of each VFC-registered clinic. Staff will use this data in 2009 to target those clinics for which there are interfaces already developed and available, working with Kristina Crane, an independent Child Profile contractor. Kristina is under contract with DOH to train providers on Child Profile, and has recently entered into contract with SRHD to carry out enhanced promotion of the registry using the data that staff collected in 2008.

Staff is also working with clinics who are currently submitting data to Child Profile on reminder recall projects. According to the conclusions of a study published by the Journal of the American Medical Association, patient reminder systems are effective at increasing immunization rates among clinic patient populations.¹ The purpose of assisting clinics with reminder recall projects is to assess the use of recall postcards in increasing individual practice's immunization rates and to encourage ongoing reminder-recall processes using the CHILD Profile Immunization Registry. In partnership with staff from DOH, the SRHD conducted a reminder recall project with Jamison & Madsen Medical Clinic in June 2008. The clinic sought to improve compliance with immunization recommendations for clients (cohorts) needing the following immunizations:

¹ Szilagyi, P.G., Bordley, Clayton, Vann, J.C., Chelminski, Ann, Kraus, R.M., Macrgolis, P.A., & Rodewald, L.E. Effect of Patient Reminder/Recall Interventions on Immunization Rates. *Journal of American Medical Associates*, Vol. 284 No. 14, October 11, 2000.

the 4:3:1:3:3:1 schedule (4DTaP, 3Polio, 1MMR, 3HIB, 3HepB, 1var), Varicella, MMR, Rotavirus, and HPV.

The initial baseline data for the 19-35 month olds in regards to the 4:3:1:3:3:1 series compliance was 38% of cohort patients. After the two mailings, 49% of the patient cohort was up-to-date with the series, which was an 11% increase (7% of the increase was from updating patient data in the Registry). Preceding the two mailings, 17% of the patient cohort had received all three doses of HPV. There was a 10% increase in overall compliance with the HPV series at project end.

Staff will encourage Jamison Madsen to focus on looking up patient’s immunization records in CHILDP Profile before administering vaccines to reduce invalid doses and missed opportunities so they can continue to increase their vaccine uptake. Staff will also encourage and support the clinic to implement reminder recall projects on a routine basis.

Progress towards Performance Measure #2 (state measurement):

Reporting Measure

2A: Percent of notifiable condition cases reported to the LHJ within the required timeframe (per WAC)

Sexually Transmitted Diseases

Condition	Total Spokane Cases July-Dec 08	# (%) Reported within 3 working days Spokane July-Dec 08	Total WA Cases July-Dec 08	# (%) reported within 3 working days WA July-Dec 08
Chlamydia	784	171 (21.8%)	10398	3009 (28.9%)
Gonorrhea	134	34 (25.4%)	1445	438 (30.3%)
Syphilis	3	1 (33.3%)	200	63 (31.5%)

Summary: Prior to 2008, Washington State had no statewide electronic reporting system for STDs. PHIMS-STD was implemented in Spokane and other counties in early 2008. DOH added the reporting fields in the system that enable 5930 performance monitoring in June 2008, thus there is no 2007 baseline with regard to timeliness of reporting. July to December 2008 is being utilized as baseline performance.

Chlamydia, gonorrhea, and syphilis are sexually transmitted diseases that are reportable to public health within 3 working days of diagnosis, per WAC 246-101-101. However, most clinicians will not report the case until the patient has been treated. It is often not feasible to have patients treated within 3 days of diagnosis due to challenges with patient scheduling. The SRHD has established a more realistic goal of getting clinicians to report cases within seven days, as opposed to three days of diagnosis, thus allowing sufficient time to ensure documentation of patient treatment. The average reporting time for 2008 was 12 days. Staff will continue to work with the medical community to improve timeliness of reporting.

Staff was hired February 2008, was trained and began conducting case investigation March 2008. Administrative staff receives, follows-up on case reports with missing information, and

inputs all cases into PHIMS-STD. Staff will follow-up on any positive labs for which a provider case report has not been received, thus additional improvements are expected as providers in the community become accustomed to and are continuously reminded of reporting obligations and expectations.

Other Select Communicable Disease (excluding chronic hepatitis)

Condition	Total Cases	Cases with Diagnosis Date		Cases with Diagnosis Date Reported within WAC timeframe	
	No.	No.	(%)	No.	(%)
Campylobacteriosis	74	71	(96%)	69	(93%)
Cryptosporidiosis	2	2	(100%)	2	(100%)
E. coli, enterohemorrhagic	7	6	(86%)	3	(43%)
Giardiasis	45	43	(96%)	36	(80%)
Hepatitis A, acute	2	2	(100%)	2	(100%)
Hepatitis B, acute	10	5	(50%)	5	(50%)
Hepatitis C, acute	5	3	(60%)	3	(60%)
Hepatitis, unspecified (infectious)	1	0	(0%)	---	---
Legionellosis	1	1	(100%)	0	(0%)
Lyme disease	1	1	(100%)	0	(0%)
Malaria	4	4	(100%)	2	(50%)
Meningococcal disease	8	7	(88%)	6	(75%)
Pertussis	8	7	(88%)	4	(50%)
Relapsing fever	1	1	(100%)	1	(100%)
Salmonellosis	36	32	(89%)	21	(58%)
Shigellosis	4	4	(100%)	4	(100%)
Tularemia	1	1	(100%)	1	(100%)
Grand Total	210	190	(90%)	159	(76%)

Timeliness of Reporting Notifiable Conditions to LHJs by Condition for Cases Reported to DOH from 1/1/2008 through 12/31/2008

Cases reported to the SRHD have generally been within timeframes defined by the WACs. A few caveats should be noted when interpreting the data:

- 2008 data is not directly comparable to baseline data from 2007. Diagnosis date prior to 2008 was defined locally as the collection date of the first laboratory test or if the diagnosis was clinical, the date the case was seen by their healthcare provider. In 2008, diagnosis date was defined as the date the lab test was completed and reported to the healthcare provider.
- Healthcare providers are generally poor reporters for many conditions. Public health depends on automated laboratory reporting of many notifiable conditions. Giardiasis and Pertussis are not lab reportable. Staff relies on provider reporting which isn't as timely as lab reporting.

Other Select Communicable Disease (excluding chronic hepatitis) by provider type

Provider Type	Total Cases	Cases with Diagnosis Date		Cases with Diagnosis Date Reported within WAC timeframe	
	No.	No.	(%)	No.	(%)
Health Care Facility	25	21	(84%)	17	(68%)
Health Care Provider	34	33	(97%)	27	(79%)
Laboratory	139	126	(91%)	110	(79%)
Other	7	5	(71%)	3	(43%)
Public Health Agency	5	5	(100%)	0	(0%)
Grand Total	210	190	(95%)	157	(75%)

Timeliness of Reporting for Select Notifiable Conditions to LHJs by Provider Type for Cases Reported to DOH from 1/1/2008 through 12/31/2008. ** Note: STDs and chronic hepatitis are not included with these statistics.

Summary: There are a number of challenges with regards to timeliness of reporting. Healthcare providers struggle to report within the mandated timeframes compared to other reporters. Part of the reason for this is that lab reports are often faxed to an office, put in the chart and then reviewed by a provider. This can create a delay of several days which can be critical if it is an immediately notifiable condition or a three-day notifiable condition.

One would expect laboratories to report notifiable conditions within the mandated timeframe but there are challenges here as well. Reporting of some conditions (such as hepatitis or giardiasis) is batched and so we would expect a proportion of those reports to be late. The “other” category is used most often with the Inland Northwest Blood Center (INBC), ZLB Plasma Centers, or self-reported cases. A diagnosis date is not included for INBC or ZLB so cases reported through these centers are not counted for this statistic. Finally, public health agency reports generally come through the WA Department of Health and are batched so there is often a significant delay in receiving reports.

Progress towards Performance Measure #2 (state measurement):

Reporting Measure

2B: Percent of notifiable condition cases reported to the LHJ where investigation was initiated within the timeframe specified in the WAC.

Sexually Transmitted Disease

Condition	Total Spokane Cases July-Dec 08	#/% Cases with investigation initiated Spokane July-Dec 08	Ave # of working days to initiation of investigation Spokane July-Dec 08	Total WA Cases July-Dec 08	#/% Cases with investigation initiated WA July-Dec 08	Ave # of working days to initiation of investigation WA July-Dec 08
Chlamydia	784	642 (81.2%)	5.5	10398	5860 (56.4%)	5.9
Gonorrhea	134	132 /98.5%)	5.7	1445	1008 (69.8%)	6.0
Syphilis	3	N/A	N/A	200	N/A	N/A

Summary: Upon entry into PHIMS-STD, the administrative assistant will assign the case to staff for interview. Staff will interview as many STD cases as possible; however, resources may limit the number of cases staff can manage at any one time due to the sheer volume of STD cases received (greater than 1300 annually). Generally, reported cases of STDs are interviewed according to agency established priorities. July to December 2008 represents baseline data. The SRHD has a slightly lower average number of days to initiation of investigation that that of the state as a whole. Additionally, SRHD initiates investigation on more chlamydia (24.8% more) and gonorrhea (28.7% more) cases than the state average.

All cases of syphilis and gonorrhea are assigned to the DOH Field staff for investigation. Chlamydia cases are assigned to other available case investigators unless the STD Case Report indicates that partners have been treated. Staffs' goal is to initiate case investigation within 3 working days of receipt. Staff will continue to improve upon recent performance.

Other Select Communicable Disease

Condition	Total Cases No.	Cases for Which Investigation was Started within Specified Time Frame	
		No.	(%)
Campylobacteriosis	74	74	(100%)
Cryptosporidiosis	2	2	(100%)
E. coli, enterohemorrhagic	7	7	(100%)
Giardiasis	45	45	(100%)
Hepatitis A, acute	2	2	(100%)
Hepatitis B, acute	10	9	(90%)
Hepatitis C, acute	5	5	(100%)
Hepatitis, unspecified (infectious)	1	1	(100%)
Legionellosis	1	1	(100%)
Lyme disease	1	1	(100%)
Malaria	4	4	(100%)
Meningococcal disease	8	8	(100%)
Pertussis	8	8	(100%)
Relapsing fever	1	1	(100%)
Salmonellosis	36	35	(97%)
Shigellosis	4	4	(100%)
Tularemia	1	1	(100%)
Grand Total	210	208	(99%)

Timeliness of LHJs Initiating Notifiable Condition Investigations by Condition for Cases Reported to DOH from 1/1/2008 through 12/31/2008

Summary: SRHD begins an investigation in most cases on the day that a report is received. Often times this does not mean the case is contacted that day. Staff will confirm the lab report, obtain additional lab results if available, and contact the provider office for additional demographic and/or clinical information. Cases of chronic hepatitis are triaged for interview according to agency priorities.

Reporting Measure

2C: Percent of notifiable condition cases reported to the LHJ with a completed investigation as indicated by completion of “measurement fields.”

Sexually Transmitted Disease

Condition	Total Spokane Cases July-Dec 08	#/% Cases with completed investigation Spokane July-Dec 08	Total WA Cases July-Dec 08	#/% Cases with completed investigation WA July-Dec 08
Chlamydia	784	508 (64.8%)	10398	3462 (33.3%)
Gonorrhea	134	108 (80.6%)	1445	525 (36.3%)
Syphilis	3	2 (66.7%)	200	53 (26.5%)

Summary: To be counted as a completed investigation, certain measurement fields within PHIMS-STD must be completed. SRHD has exceeded the state average for percent of cases completed for chlamydia (31.5% greater) and gonorrhea (44.3% greater).

Staff investigates laboratory confirmed chlamydia and gonorrhea in order to provide health education, risk reduction counseling, and partner notification services. Partner notification is the act of informing the sex partners of patients infected with an STD that they have been exposed and are at risk for infection. This is accomplished **WITHOUT** disclosing the source of their exposure, protecting the confidentiality of the index patient. The exposed partner is offered STD education, counseling, and referrals for testing. Partner notification is an important tool in breaking the chain of infection. Staff has been able to directly facilitate testing and treatment for 132 partners. Staff have indirectly facilitated testing and treatment of many other partners by coaching the index patients to refer partners to care. In sum, staff has been able to successfully facilitate and/or otherwise assure that 61.6% of partners identified have been successfully treated January through December 2008.

Other Select Communicable Disease

Condition	Total Cases No.	Cases with "Complete" or "Unable to Complete" Investigation Status		Cases with "Complete" or "Unable to Complete" Investigation Status for Which All "Measurement Fields" are Complete	
		No.	(%)	No.	(%)
Campylobacteriosis	74	70	(95%)	66	(89%)
Cryptosporidiosis	2	2	(100%)	2	(100%)
E. coli, enterohemorrhagic	7	7	(100%)	5	(71%)
Giardiasis	45	45	(100%)	37	(82%)
Hepatitis A, acute	2	2	(100%)	2	(100%)
Hepatitis B, acute	10	10	(100%)	9	(90%)
Hepatitis C, acute	5	5	(100%)	5	(100%)
Hepatitis, unspecified (infectious)	1	1	(100%)	1	(100%)
Legionellosis	1	1	(100%)	1	(100%)
Lyme disease	1	1	(100%)	1	(100%)
Malaria	4	4	(100%)	4	(100%)
Meningococcal disease	8	7	(88%)	6	(75%)
Pertussis	8	8	(100%)	8	(100%)
Rabies post exposure prophylaxis	3	3	(100%)	3	(100%)
Rare disease of public health significance	1	1	(100%)	1	(100%)
Relapsing Fever	1	1	(100%)	1	(100%)
Salmonellosis	36	36	(100%)	31	(86%)
Shigellosis	4	4	(100%)	1	(25%)
Tularemia	1	1	(100%)	1	(100%)
Grand Total	214	209	(98%)	185	(86%)

Completeness of All "Measurement Fields" by Condition for Cases Reported to DOH from 1/1/2008 through 12/31/2008

Core "Measurement Field"	Completeness (%)
Age or date of birth	100%
Onset date or diagnosis date	100%
Hospitalized for this illness	100%
Died from the illness	100%
Travel out of state, out of country or outside of usual routine*	97-99%
Where did the exposure likely occur?*	98-99%

Completeness of Core "Measurement Fields" by Field for Cases Reported to DOH from 1/1/2008 through 12/31/2008

It should be noted that most instances where a case is not complete relate to travel issues and the exposure location. With cases that we are unable to interview we must rely on provider chart notes for exposure and clinical information. Travel history and speculation on exposure are not often included within the medical record.

Summary: Performance measures arising out of 5930 have provided tools for improving how we respond to communicable disease reports from the point of view of timeliness and

completeness. SRHD epidemiologists have a number of challenges with communicable disease investigation that must be addressed to improve how rapidly we can respond to communicable disease within our community.

Often times we must apply a triage process as we approach our case loads. Cases where there is a risk of transmission to others or of increased morbidity/mortality are prioritized. Examples would include food/waterborne disease such as Salmonella, or vaccine preventable diseases like Pertussis or acute Hepatitis B. Some diseases don't often represent a significant risk to others and are prioritized lower. These diseases/conditions would include vector borne disease like Lyme Disease or Tick Paralysis. Chronic hepatitis is not prioritized beyond obtaining necessary demographic information. Interviewing cases of chronic hepatitis is prioritized as follows:

1. ER patients with a new diagnosis, ER patients with a high risk of transmission (health care workers, history of current substance abuse using needles, homeless or sex worker), or those diagnosed while donating/selling plasma or blood products.
2. Patients who are currently in an inpatient drug treatment program or primary care patients with a high risk of transmission as defined above.
3. Patients with an old diagnosis, pediatric patients, and patients in care who don't have a current high risk of transmission (currently we do not interview these patients).
4. Patients in long term corrections (currently we do not interview these patients).
5. Patients undergoing treatment for hepatitis or who are seen by a gastroenterology practice or VA Hospital patients (currently we do not interview these patients).

Obtaining the initial case report is an area that we are focused on in order to improve how quickly we can respond to notifiable conditions that are present in our community. These efforts focus on the healthcare provider/facility and the laboratory as the bulk of our reports come via these two sources.

- WA Department of Health (DOH) has a web-based program called PHRED (Public Health Reporting of Electronic Data) that allows laboratories to report positive tests for notifiable conditions electronically. This will speed of notification to local public health and ensure that we do not lose reports due to inefficient or non-existent provider-based reporting. Currently our two primary clinical labs, Empire Health Services (EHS) and Pathology Associates (PAML) are not included in PHRED but PAML is expected to be the next lab incorporated into PHRED and we anticipate QA testing with PAML data in June of 2009. Once both EHS and PAML are included we should see significant improvement in timeliness of receipt of initial reports.
- WA DOH is also developing an import feature which will allow the transfer of lab information and patient demographic information from PHRED to PHIMS (Public Health Information Management System), our web-based reporting tool. This will save a significant amount of staff time.
- Spokane will be the beneficiary of a CDC grant that looks to provide automated reporting of notifiable conditions based on a medical encounter dataset which would include chief complaint and diagnosis codes for hospital patients. This would allow for increased timeliness as reporting would begin with a provider initial/admitting diagnosis rather than waiting for a positive lab test.

There are challenges to improving the timeliness of disease investigation once a report is made to the SRHD.

- There can be delays in completing an investigation based upon the need, in certain circumstances, to obtain permission from the provider to contact the patient for the interview. While not required, this is a courtesy to allow the healthcare provider to notify their patient of the diagnosis and to let them know that public health will be contacting them.
- While counter-intuitive, improved reporting of suspect cases by providers and through automated surveillance of ER visits will lead to increased times to complete cases as investigations will have to wait for lab confirmations.
- SRHD is developing a program for public health interns which would focus on providing an introduction to communicable disease investigation. The program would provide training in case investigation and patient education with a narrow focus on chronic hepatitis C. We have utilized this program with one intern and look to improve the program based upon feedback and evaluation. This should allow us to interview more chronic hepatitis patients in the future. Additionally, the public health field, like other health fields, is facing a qualified personnel shortage in the near future due to an aging workforce. This project serves to help generate interest among young professionals for a career in public health.

Other Select Communicable Diseases for 2008

Disease	Total Cases	Average Days Diagnosis to Notify	% Interview	Average Days Notify to Complete	% Lab Initial Reporter
Enteric	171	2.2	96.0	8.9	71.8
Vaccine Preventable	25	1.7	91.9	4.8	31.9
Chronic Hepatitis	522	79.1	20.9	16.8	63.6
Vector	6	2.3	66.7	6.3	66.7
Other	13	4.2	92.3	12.2	53.9

Summary: SRHD recognizes that additional measures are needed for program staff to improve the timeliness of response to communicable disease reports. We have created four measures which will allow us to improve our ability to measure our timeliness.

- *Average Days Diagnosis to Notify* describes the efficiency of reporting to public health. Improvements may be seen with provider education about reporting responsibilities as provided by our public health liaison but the most gains will be made by automated reporting from laboratories.
- *% Interview* is a measure of how many people we are able to interview. Currently this is not a performance measure with 5930. A case interview is necessary as the medical

record is often incomplete with regards to identification of the possible exposure sources for the patient or identification of contacts that may be at risk of the disease.

- *Average Days Notify to Complete* looks at our speed in completing a case investigation upon becoming aware of the report.
- *% Lab Initial Reporter* addresses the proportion of our cases first identified via a lab report sent to public health. While not something that SRHD can directly influence it is something that we believe to be strongly associated with improved timeliness of case investigation. Automated lab reporting will increase timeliness of case investigation in the next several years.

Appendix A: Summary of Program Activities funded by 5930

Staff Development:

- Hired 1.0 FTE Program Manager II
- Hired 1.0 FTE Health Educator I
- Hired 1.0 FTE Administrative Assistant II
- Hired 2.0 FTE Health Program Specialists I

Program Development:

- Developed program logic models and data tracking tools
- Developed program work plans

Primary Activities Update: Immunization Outreach

Activity: Increase access to and utilization of CHILD Profile (CP), the Washington State immunization registry, with health care providers in the community.

- Established a master list of CP users and providers ordering vaccine through the Vaccines for Children (VFC) program.
 - As of December 31, 2008 there were 30/81 clinics (37%) on the VFC program utilizing CP.
- Made 84 calls to clinics to gather data on information systems used by each clinic. Data was used to prioritize outreach to those clinics that have billing systems for which interfaces are already developed.
 - Initiated a fee-for-service contract with Kristina Crane to establish interfaces with high priority clinics. Work to be carried out in 2009.
- Conducted two reminder recall care projects, increasing clinics utilizing CP with updated records by 6.7%.
 - Jamison Madsen Clinic: 11% improvement in the 4:3:1:3:3:1 immunization rate; 11% increase in varicella compliance; 10% increase in HPV compliance.
- Increased total SRHD immunizations recorded in CP in 2008 by 975 doses—an 18% increase over 2007.
 - 273% increase in influenza doses recorded.
 - 32% increase in varicella doses recorded.
 - 356% increase in rotavirus doses recorded.
 - 44% increase in HPV doses recorded.

Activity: Work with schools and childcare centers to decrease school exemption rates by identifying barriers to immunizations, educating parents, and/or coordinating vaccination clinics, if necessary.

- Obtained data and established baseline exemption rates using 2007-2008 school year.
- Conducted a school exemption pilot project with West Valley School District.
 - Conducted focus groups with school personnel to identify issues, used information to provide targeted a targeting immunization reminder mailing to parents.
 - Conducted a back-to-school clinic August 27th:
 - 59 total different children vaccinated; 25 total vaccinations given.
 - 160/1423 (11.24%) children with exemptions on file at baseline, 187/1983 children with exemptions on file after the pilot project—1.81% improvement.
- Leveraged 5930 funding—received a grant for \$157,500 from the Group Health Foundation to address immunizations using a school-based immunization model.
 - Conducted a total of 12 clinic days at 6 different schools (3 school districts) providing a total of 944 flu immunizations.
- Developed and implemented a pilot project providing flu immunizations to children in the childcare setting.
 - Utilized partnership with nursing students to provide no-cost immunizations to children. 34 students participated for a total of 128.5 volunteer hours.
 - Total of 235 flu immunizations provided.

Activity: Develop and implement a social marketing campaign to increase and promote immunizations and counter misperceptions and fears by targeting pregnant women and parents with adolescents and children entering into kindergarten.

- Gave the following presentations:
 - HPV presentation at Indiana Planned Parenthood.
 - Childhood Immunizations Presentation at Salvation Army Life Skills class.
- Provided immunization information at:
 - Participated in Women’s Show booth at Convention Center.
 - America’s Kids Run booth at Convention Center.
 - Comcast “Back to School” immunizations interview.
- Conducted research for and outlined a social marketing campaign. Contract developed with Desautel Hege. Estimated completion end of December 2008.
- Influenza PSAs ran mid Nov thru end of December.
- Letters were sent to all VFC providers, inviting them to actively promote childhood flu vaccinations with their patients.
- Article sent to KidsNews promoting influenza vaccinations.

Activity: Improve the immunization status of public health clients through an interagency effort.

- Initiated data collection to determine the immunization status of WIC clients.
- Developed draft survey to collect data related to the immunization status of CFS clients in the Childcare, CSHCN, General Field Nursing, and Early Family Support Services programs.
- Conducted 6 childcare influenza clinics for the fall working with the CFS Childcare program and SCC Nursing program.

Primary Activities Update: CD Prevention

Activity: Improve communicable disease prevention and control in Spokane County based on our local data (focusing improvements with regard to chlamydia, gonorrhea, and chronic hepatitis C cases).

- # of Investigations:
 - Gonorrhea: 219/250 reported cases = 87.6%
 - Chlamydia: 1168/1593 reported cases = 73.3%
 - Chronic Hepatitis C: 86/453 reportable cases = 19.0%
 - Priority Group 1 – 38%
 - Priority Group 2 – 28%
 - Priority Group 3 – 9%
 - Priority Group 4 – 5%
 - Priority Group 5 – 3%

Activity: Provide partner notification services to all named contacts identified during investigations. *Staff follow-up on all named contacts to verify that treatment has already been given, or to notify and refer the partner for testing. The numbers below reflect the total partners treated. Some partners were provided direct assistance by staff, and others were assisted by the index patient who are coached by staff to provide partner notification.*

- # of Partners with Confirmed treatment
 - Gonorrhea: 89/166 = 53.6%
 - Chlamydia: 471/743 = 63.4%
 - DIS direct notification of 132 partners

Activity: Improve timeliness and completeness of communicable disease reporting and update investigation procedures for STDs and other conditions.

- Developed procedures for investigation of STDs and data entry in STD-PHIMS.
- Initiated local data entry for all STD case reports received in Spokane County (previously done by the State Department of Health).
- Developed protocol for off-site screening.
- Developed internal priorities for case investigation. Consequently developed MOU with Planned Parenthood of Indiana which eliminated the need for staff to prioritize PPINW clients for interview.
- Conducted two quality assurance checks (one by manager, one by peers) of case investigation.

Activity: Work with community partners to develop/maintain a referral system for STD screening and treatment and to expand chlamydia/gonorrhea screening opportunities.

- Developed data tracking tool to capture referrals made for STD testing.
- Directly referred 196 clients for testing.
- Conducted a pilot STD screening project in the SRHD Outreach Center.
 - 155 clients tested for chlamydia and gonorrhea; 3.9% positivity rate (n=6).

- Outreach center authorized as a universal access site to receive Infertility Prevention Program (IPP) testing resources.
- Developed and implemented standing order for nonclinical staff to provide testing instruction. Assigned staff to provide screening services in Outreach Center 2 days per week.
- Conducted three off-site screening projects:
 - SFCC: 80 students took sexual health survey; 34 students tested; 0% positivity.
 - EWU: 100 students took sexual health survey; 17 students tested; 0% positivity.
 - The Doctor's Clinic (sport's physical pilot); 2 adolescents tested; 0% positivity.
- 3 sites were added to the Infertility Prevention (chlamydia screening) Project: Outreach Center, WSU College of Nursing, and the Spokane County Jail.
- Developed a youth advisory board of four adolescents to assist with development of an adolescent website to provide information and referrals for STD testing and treatment. RFP closes 11/7/2008. Website expected to be completed by February 2009.

Activity: Conduct ongoing education and outreach to health care providers to improve delivery and quality of STD-related care for patients and their partners.

- Continued facilitation of the Spokane County STD Medical Coalition: 3 meetings and 24 organizations represented:
 - Coalition survey indicated that participants are invested in the coalition and believe that coalition work is making an impact in the community.
- Completed and released the STD Toolkit for clinicians. See www.srhd.org/STDToolkit
- Drafted and mailed 4 editions of the STD Medical Coalition newsletter. Newsletter sent to 3341 clinicians and partners.
- Published article in the Spokane County Medical Society newsletter regarding support of the Healthy Youth Act.
- Held two trainings in collaboration with the Seattle STD/HIV Prevention Training Center:
 - 2nd annual STD Update training for coalitions: 40 clinicians in attendance.
 - Lab skills training for clinicians: 10 clinicians in attendance.
- Developed the STD Medical Coalition Speakers Bureau:
 - 5 Speaking engagements, 5 different topics, 52 total attendees.
- Initiated development and implementation of a chlamydia screening improvement project. Worked with Family Medicine of Spokane to conduct initial pilot.
 - Initial assessment found chlamydia screening rates to be almost 100% of eligible patients.
 - Currently pursuing chart review to verify data collection methodology before implementation of second screening project.
- Worked with STD Medical Coalition to advocate that schools adopt Healthy Youth policy regarding provision of comprehensive sex education.

5930 Interagency Efforts

Activity: Improve the reproductive health status of public health clients through an interagency effort.

- Worked with the Public Health Clinic and Laboratory staff on all screening events.
- Worked with HIV/AIDS program and the Public Health Clinic to implement limited chlamydia/gonorrhea screening in the Outreach center for clients who have no other means of receiving screening services.
- Staff has developed plans to track and distribute Reproductive Health Kits that were purchased by LCDF funds in 2007.
 - Staff distributed over 3,556 Reproductive Health Kits.
 - Survey found that clients found Reproductive Health Kits useful.