

# Benefits Documentation - DRAFT FORM



**12 month projection:**

Returns saving: \$ 730.11  
 Coding time saving: \$ 48.88  
**Total: \$ 778.99**

**Event Name** CHS Data Entry  
**Event ID** PHD-O5\_1  
**Version** 0.9

**THEME:** Improve the quality of data submitted by external organizations, and improve the CHS data entry process so data is available faster for research staff.

**Background**  
 The Center for Health Statistics processes ~ 12,000 of one particular type of vital record annually. Staff reviews submitted data for accuracy, following up with medical providers, as needed. Data is entered into a database, and is used to generate Oregon Benchmark #39 "Teen Pregnancy," and is used to generate other teen pregnancy reports.

**Current Condition**  
 All records go through at least 34 steps and 5 handoffs within the CHS Registration Unit.

Providers submit forms with missing information ~14% of the time, requiring rework and additional processing that results in delays in data entry and access to information for research.

The current process has a convoluted workflow, redundant error checks and inconsistent follow-up which impacts data quality and timeliness.

**Improvement Summary**  
 Process steps were reduced from 34 to 22 (35% reduction) by identifying waste and redundancy of effort. The old process was convoluted and contained redundant error checks with inconsistent follow up, which resulted in delayed completion. Streamlining through elimination of waste resulted in a reduction of handoffs from 5 to 1 (80% reduction) for ~90% of records. Redundant process steps were removed, and core staff received additional training and support in order to check work as it occurred rather than in batch. The data coding bottleneck was eliminated by empowering data entry staff to code standard forms.

Development of a pdf-fillable form with basic error checking reduced the volume of forms returned to providers due to missing or incomplete information which resulted in a delay in data entry completion.

Follow-Up		Actual Results over 4 mos	Outcome
<b>Target</b>	5 days from form receipt to completion of data entry (baseline 19.4 days)	Average 1.4 days.	Cost of waiting reinvested into other data entry needs.
	Reduction in number forms returned to providers for correction (baseline 13.8% of forms were returned due to missing/incomplete information). No target.	Average 1.8% of forms (71 of 3,737 forms, April - July 2009) are currently returned to providers due to missing/incomplete data.	Quality improvement contributes to faster cycle time, and ensures data is entered faster and accessible to research analysts sooner. The reduction in returns forms the basis for cost savings listed below.
	Staff time and postage savings from reduction in forms returned (baseline estimate \$282, assuming 13.8% of 3,737 forms would have been returned "CHS Calculations" F9)	\$39 ("CHS Calculations" H9) is spent on returns under the new process, representing cost savings of \$243 ("CHS Calculations" K9).	Staff time and supplies can be reinvested in other data entry work resulting in improved efficiency in performing regular work.
	Staff time savings from elimination of data coding bottleneck.	\$16	Cycle time is improved, and staff time is reinvested into other data entry needs.

**Staff Satisfaction Quote**  
 The RPI helped the team in so many ways. Under the old process, forms could take up to 3 months to be entered due to providers not filling out forms correctly and requiring extra staff to check the forms before they were entered. As a result, people's stress level rose. With the new process, we figured out how to get better information from providers so there is less need for checking - only 2% of forms are returned compared to 14% with the old process! We also streamlined the process so forms go through data entry in only one day by ensuring the right people were responsible. Information is entered faster for the customer, and the staff feels good about getting their work done. In the end, everyone is much happier and feel good about having built the new process, and they enjoy the results together.

**Metric Key**      **Reporting Schedule: Quarterly**  
**Quality:** Number of forms returned divided by number of forms received  
**Cost:** Staff time savings from data coding; value \$0.0044/record received  
**Cost:** Staff time and postage savings from reduced returns. To calculate savings: ((Estimate of returns under the old process) - (Returns under new process)) x (Cost per return) = ((Count of records received x 0.138) - (Count of returns)) x \$0.55