

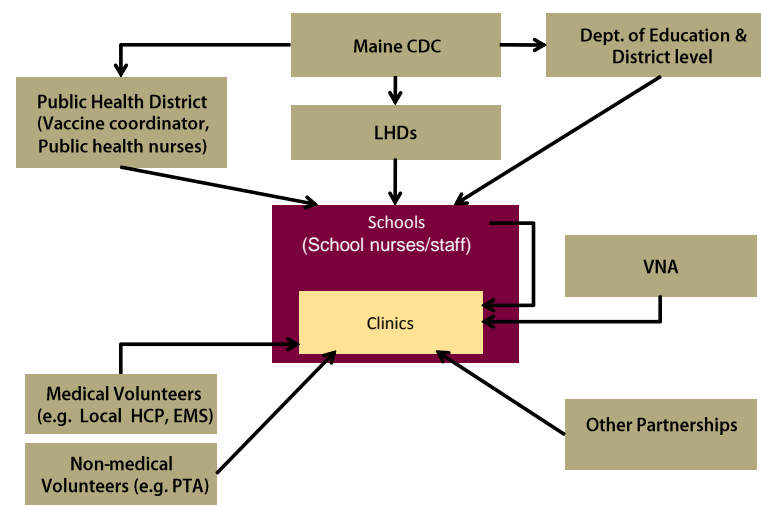
Planning and coordination costs for School Located Influenza Vaccination Clinics – A retrospective economic evaluation during the 2009-2010 H1N1 Influenza Season in the State of Maine

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Background

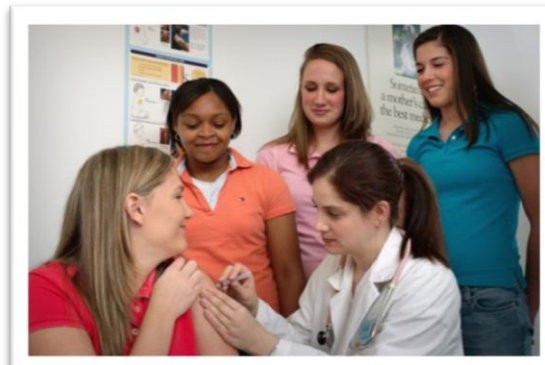
- In recent years, some states have experimented with SLV clinics
- During 2009-2010 Maine conducted state-wide SLV clinics
- SLV clinics required a large amount of planning and coordination with a multitude of entities (Figure 1)

Figure 1: Maine potential SLV coordinating entities



Objectives

- To evaluate the time and resources spent on outside clinic activities
- Outside clinic activities are staff and materials used outside of clinic operation hours (e.g., planning meetings, communications with parents, consent form process, reporting to providers, billing)



Methods

Survey design

- Surveys and interviews conducted with lead school nurses
- Nurses asked to report their time and other school staff time spent on outside clinic activities from May 1st, 2009 until April 31st, 2010
- Time split into three phases (Table 1)
 - Planning phase – May 2009 until 1st clinic date
 - Implementation phase – 1st clinic date until last clinic date
 - Post-implementation phase – last clinic until April 31st, 2010
- Nurses asked to report materials used for outside clinic activities in their district
- Nurses reported information on date, time, and doses for each clinic in their district

Outcome measures

- Average hours per nurse
 - Total hours for all nurses divided by # nurses
- Average hours per clinic
 - Total hours for all nurses divided by # of clinics
- Average cost per dose per district
 - we computed the average cost per dose for each district by first computing that districts total cost by category and dividing by number of doses

Table 1: SLV phases and activities

Planning	Implementation	Post-Implementation
Activities • Communication • Consent forms • Training • Rescheduling clinics • Planning for billing • Data entry & management • Other activities	Activities • Communication • Consent forms • Training • Running clinics • Rescheduling clinics • Billing • Reporting • Data entry & management • Other activities	Activities • Communication • Billing • Reporting • Data entry & management • Other activities
May 1, 2009	Date 1 st clinic	Date last clinic
		April 31 st , 2010

Results

- 7 lead school nurses responded to the survey
- Represents 42 schools, 84 school clinics, and 22,596 doses of vaccine
- Median school size 1,645 students [min 838, max 7,023]
- Mean clinics per district was 12 [min 4, max 30]

Figure 2: Average nurse time by phase (hours per clinic)

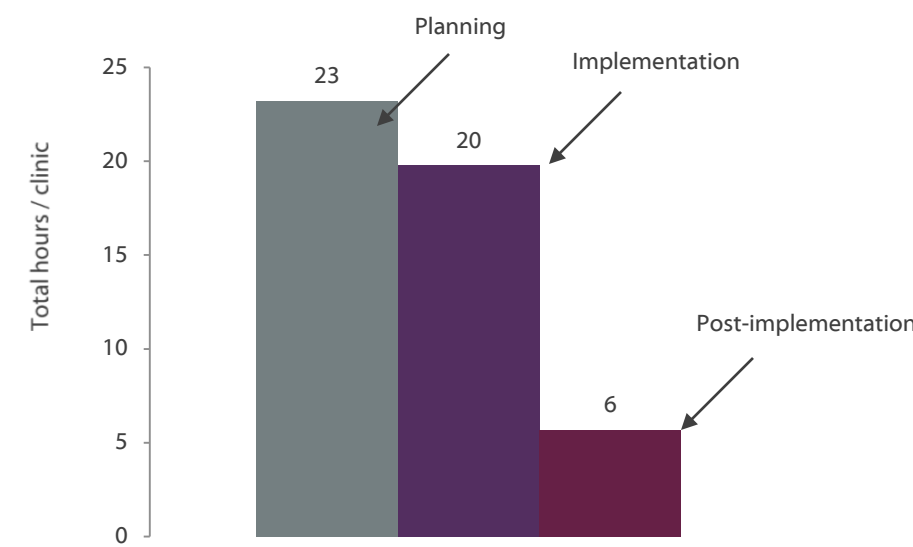


Figure 3: Average nurse time by activity in planning phase (all clinics)

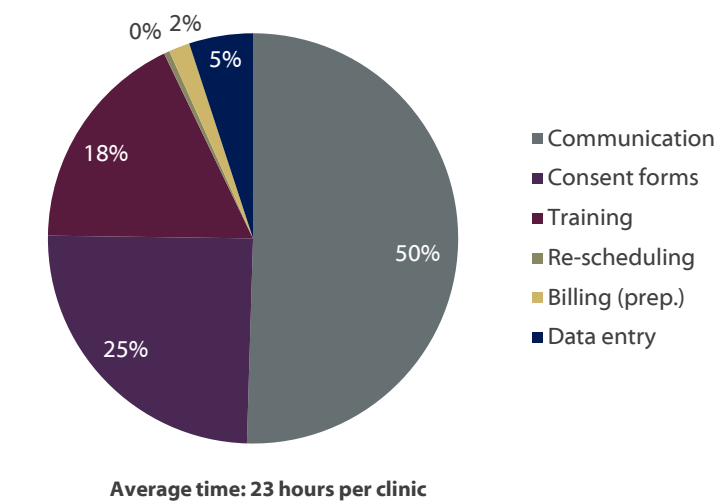


Table 2: SLV outside clinic cost per dose

	Average cost per dose	% total cost	Cost per dose		
			Median	Min	Max
Lead nurse time spent outside clinic (N=7) ¹					
Planning ²	\$4.93	42.9%	\$3.39	\$0.66	\$10.10
Implementation ³	\$2.78	24.2%	\$3.53	\$0.72	\$4.64
Post-Implementation ⁴	\$1.34	11.7%	\$1.39	\$0.12	\$2.81
Sub-total lead nurse cost	\$9.05				
Other staff involved in outside clinic activities ⁵ (N=4)	\$2.33	20.3%	\$1.66	\$0.24	\$5.78
Materials costs (N=1)	\$0.11	1.0%	\$0.11	N/A	N/A
Total outside clinic cost	\$11.49	100.0%	\$10.08	\$1.85	\$23.44

¹These costs reflect those of school nurses who coordinated several clinics in their school district plus costs related to time spent by other staff.
²Planning period starts in May 2009 and continues until the district's first clinic. Planning costs included planning for seasonal and H1N1 clinics.
³Implementation period begins on the date of the first clinic and ends on the date of the last clinic.
⁴Post-implementation period begins on the date of the last clinic and ends on April 31st, 2010.
⁵Staff include principals, superintendents, secretaries, substitute school nurses, janitors, etc.

Summary & Preliminary Results

- Majority of outside clinic cost due to staff time
- Of lead school nurse time
 - Most time spent planning clinics
 - Almost half of total time spent outside of regular working hours (compensation unknown)
 - Communication was the most time consuming activity, followed by consent forms
- Next year expected to be less time consuming (75% lower planning time)

Limitations

- Small sample
- Sample not random
- Focused on clinics planned and implemented by school nurses
- Recall data
- Data from pandemic year

Next Steps

- Prospective survey
 - 2010-2011: Collecting data on approximately 100 clinics in four different states.
 - Will evaluate their outside and inside clinic costs

Acknowledgments

- Interview & survey participants
- Maine Centers for Disease Control and Department of Education

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