Vaccination data when the outbreak happens

Oregon Immunization Program



Andrew Osborn, MBA Lee Peters, MPH



What we do with data (among other things):

- Look up individual vaccination records
- Conduct population coverage analysis
- Measure uptake following intervention

Challenges with this work:

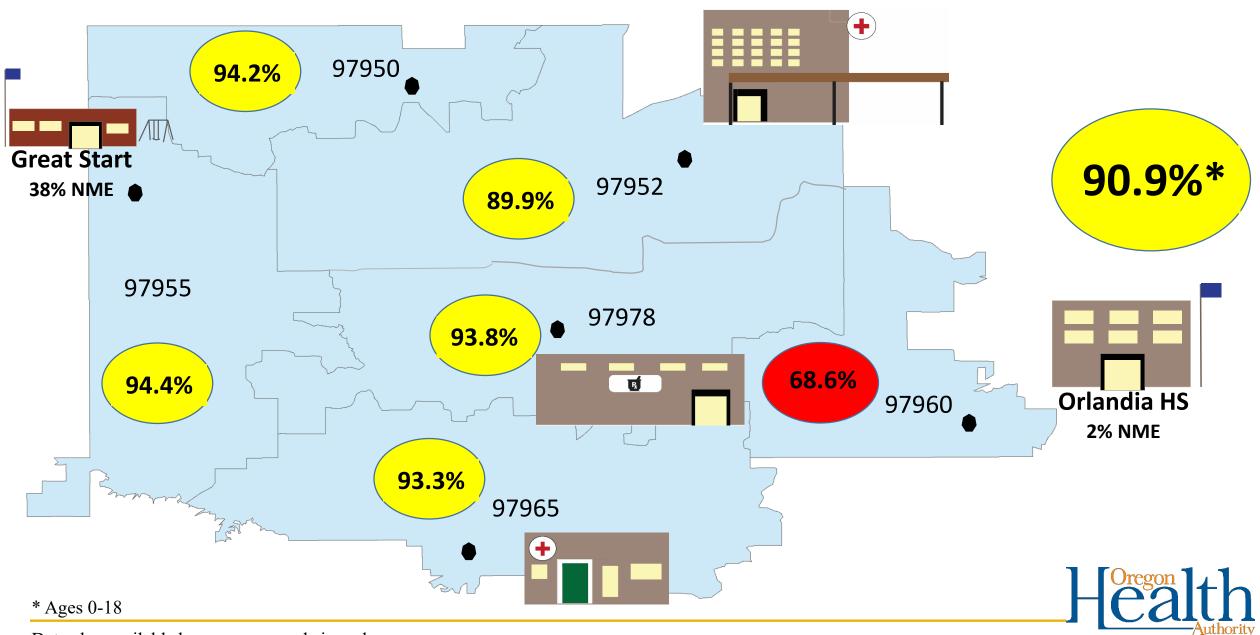
- Reactive
- Takes Time
- Unsustained

Goals of Rapid Response:

- Make our data work harder to be helpful
- Deliver useful data within two hours
- Use only available resources



Orlandia County, Oregon



					Cou	nty Measles Vaccination	Coverage by Age (Group by Zip Code			
									Percent Estimates		
Zip Code	A	Age Order	A	ge Group	Count	No Shots	One Shot	>1 Shot	No Shots	One Shot	>1 Shot
	97950		1	0<1	166	166	0	0	100.0%	0.0%	0.0%
	97952		1	0<1	335	335	0	0	100.0%	0.0%	0.0%
	97955		1	0<1	235	235		0	100.0%		
	97960		1	0<1	166	166		0	100.0%		
	97965		1	0<1	151	151		0	100.0%		
	97978		1	0<1	172	172		0	100.0%		0.0%
	97950		2	1<2	171	37	127	7	21.6%	74.3%	4.1%
	97952		2	1<2	343	88	241	14	25.7%	70.3%	4.1%
	97955		2	1<2	275	70	198	7	25.5%	72.0%	2.5%
	97960		2	1<2	157	67	90	0	42.7%	57.3%	0.0%
	97965		2	1<2	156	42	112	2	26.9%	71.8%	1.3%
	97978		2	1<2	164	41	121	6	25.0%	73.8%	3.7%
	97950		3	2-3	347	32	273	38	9.2%	78.7%	11.0%
	97952		3	2-3	767	102	585	80	13.3%	76.3%	10.4%
	97955		3	2-3	645	62	527	56	9.6%	81.7%	8.7%
	97960		3	2-3	320	90	220	10	28.1%	68.8%	3.1%
	97965		3	2-3	343	35	276	32	10.2%	80.5%	9.3%
	97978		3	2-3	415	49	325	41	11.8%	78.3%	9.9%
	97950		4	4-6	546	32	138	376	5.9%	25.3%	68.9%
	97952		4	4-6	1265	130	388	747	10.3%	30.7%	59.1%
	97955		4	4-6	1140	79	305	756	6.9%	26.8%	66.3%
	97960		4	4-6	530	112	170	248	21.1%	32.1%	46.8%
	97965		4	4-6	559	35	150	374	6.3%	26.8%	66.9%
	97978		4	4-6	675	53	181	459	7.9%	26.8%	68.0%
	97950		5	7-10	748	48	110	590	6.4%	14.7%	78.9%
	97952		5	7-10	1782	140	338	1304	7.9%	19.0%	73.2%
	97955		5	7-10	1699	117	264	1318	6.9%	15.5%	77.6%
	97960		5	7-10	748	149	195	404	19.9%	26.1%	54.0%
	97965		5	7-10	794	47	122	625	5.9%	15.4%	78.7%
	97978		5	7-10	950	58	142	750	6.1%	14.9%	78.9%
	97950		6	11-17	1233	102	185	946	8.3%	15.0%	76.7%
	97952		6	11-17	2786	226	489	2071	8.1%	17.6%	74.3%
	97955		6	11-17	3043	194	461	2388	6.4%	15.1%	78.5%
	97960		6	11-17	1236	186	208	792	15.0%	16.8%	64.1%
	97965		6	11-17	1410	111	230	1069	7.9%	16.3%	75.8%
	97978		6	11-17	2487	173	421	1893	7.0%	16.9%	76.1%



Evaluation Takeaways:

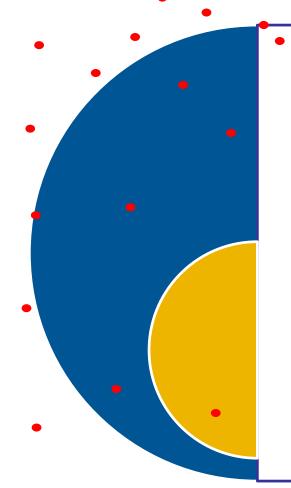
Vulnerability is not disease

Yet, there is room for the Tool to make a contribution

This is new – it's going to take time to incorporate into current practice



Regional Measles Outbreak, January, 2019



- January 3, 2019 laboratory-confirmed case of measles in the state of Washington
- Agency Operations Center stood up
- January 25, first confirmed case in Portland, Oregon
- January 29, first Rapid Response data request responding to an actual outbreak



And what happened next....



- No further requests
- No clarifications
- No updates on usage

This was a win!

- The tables did their job
- No actionable conditions found
- Finding baselines
 was easy and fast,
 freeing resources
 for other, more
 important duties

Future considerations

- Improved mapping and display options
- Refined data
- More vaccinepreventable diseases
- Automated access
- Improved technical assistance



Conclusion



The Oregon Immunization Program can play a greater immediate role in supporting local outbreak response through the Rapid Response Tool.



Questions?

Andrew Osborn
Oregon Immunization Program

andrew.w.osborn@state.or.us

