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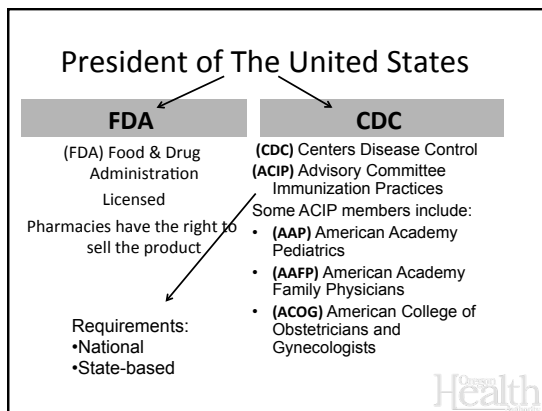
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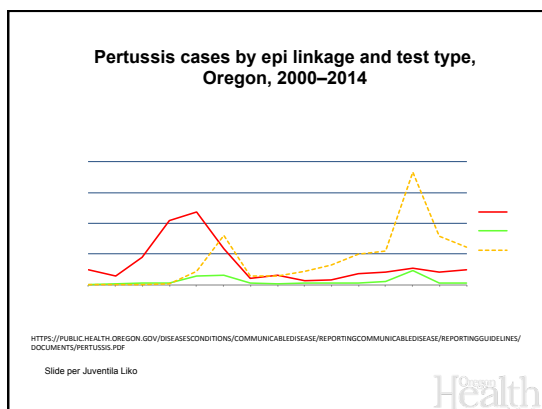
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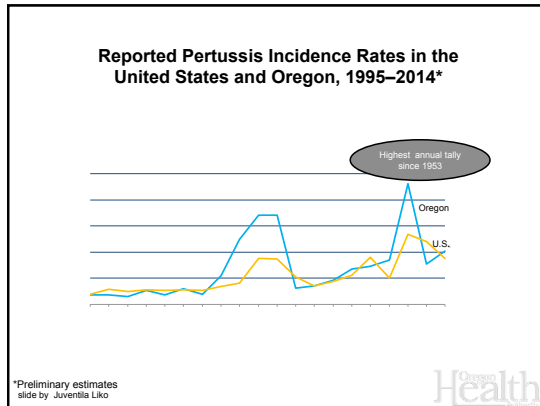
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### A Complicated Case of Pertussis

- Hospitalized for 3 months
  - Intensive Care Unit
  - Mechanical ventilation
  - ECMO
- Complications
  - Kidney failure
  - Stroke
- Lab reports — *Bordetella pertussis*
- Exposure history
  - Siblings vaccinated
  - Mother declined vaccine and noted coughing
- Hospitalization costs exceeded \$1.5 Million

Photo courtesy of Michelle Razore  
-CDC

Oregon Health

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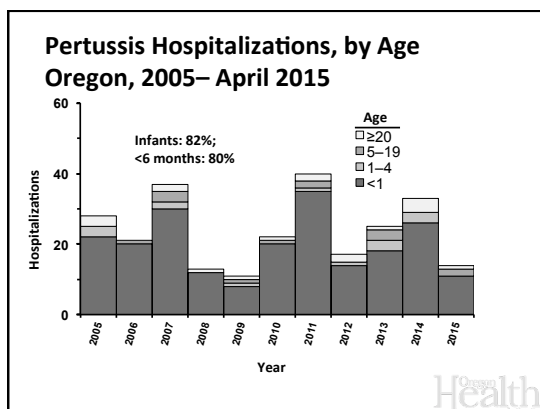
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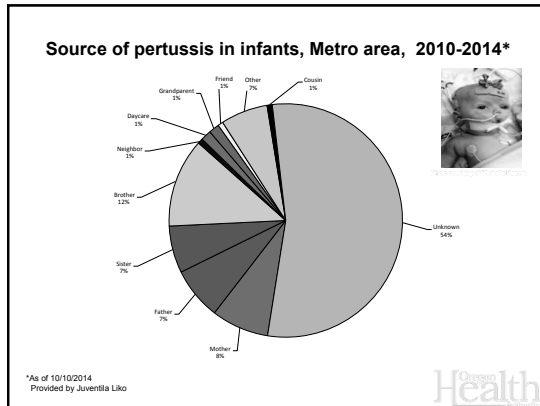
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**Immunizations for Pregnant Women**

<p><b><u>Safe &amp; Recommended</u></b></p> <ul style="list-style-type: none"> <li>• Tdap (27–36 weeks gestation) In every pregnancy</li> <li>• Flu shot IIV (inactivated vaccine)</li> </ul>	<p><b><u>Consult with provider</u></b></p> <ul style="list-style-type: none"> <li>• Hepatitis A</li> <li>• Hepatitis B</li> <li>• Meningococcal</li> <li>• Pneumococcal</li> </ul>
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**ALERT IIS Summary**

- Children entered since 1996
- Data available to users since 2000
- Accepting Adult vaccinations in 2006
- >95% of individuals age 0-6 in Oregon captured with 2+ shots

• <http://public.health.oregon.gov/PreventionWellness/Vaccinesimmunization/alert/Pages/index.aspx>

Oregon Health

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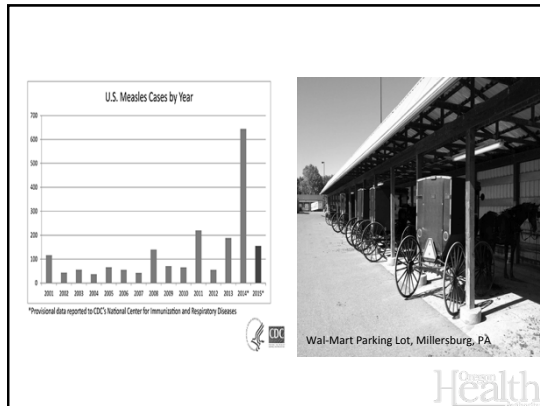
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[illegible][illegible]

Number of Immunogenic Proteins and Polysaccharides Contained  
in Vaccines Over the Past 100 Years.

1900		1960		1980		2000	
Vaccine	Proteins	Vaccine	Proteins	Vaccine	Proteins	Vaccine	Proteins/ Polysaccharides
Smallpox	~200	Smallpox	~200	Diphtheria	1	Diphtheria	1
<b>Total</b>	<b>~200</b>						
		Diphtheria	1	Tetanus	1	Tetanus	1
		Tetanus	1	WC Pertussis	~3000	AC-Pertussis	2-5
		WC-Pertussis	~3000	Polio	15	Polio	15
		Polio	15	Measles	10	Measles	10
		<b>Total</b>	<b>~3217</b>	Mumps	9	Mumps	9
				Rubella	5	Rubella	5
				<b>Total</b>	<b>~3041</b>	Hib	2
						Varicella	6/9
						Pneumococcus	8
						Hepatitis B	1
						<b>Total</b>	<b>175, 176</b>

Information provided by lecture from Paul Offit MD  
<https://www.coursera.org/instructor/~353>




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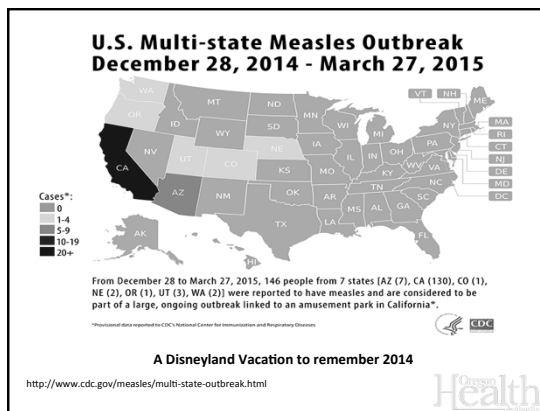
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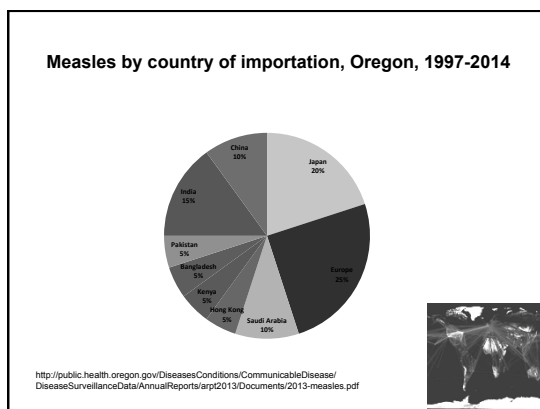
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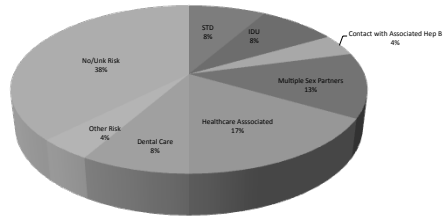
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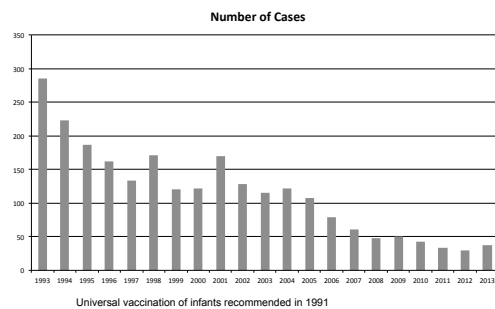
Reported Risk Factors  
(mutually exclusive) for  
Acute Hepatitis B, Oregon, 2013 (n=24)



<https://public.health.oregon.gov/Diseases/Conditions/Diseases/AZ/Pages/disease.aspx?did=65>



Cases of Acute HBV in Oregon,  
1993-2013



Characteristics of Cases of  
Chronic HBV, Oregon, 2013 (n= 444)

Characteristics	Number	Percent
<b>Behavioral</b>		
Contact of person with HBV	64	23
History of injection	14	5
Ever incarcerated	12	4.3
Ever treated for STD	24	8.5
MSM	16	5.7
<b>Demographic</b>		
Foreign-born	232	82.5
Language other than English	83	29.5
<b>Total Interviewed</b>	<b>281</b>	<b>63.2</b>

<https://public.health.oregon.gov/Diseases/Conditions/CommunicableDisease/DiseaseSurveillanceData/AnnualReports/arpt2013/Documents/2013-hepB-chronic.pdf>



- A study published in the Journal of the American Medical Association finds that getting the influenza vaccine lowers a person's odds of a having heart attack, stroke, heart failure, or other major cardiac event—including death—by about a third over the following year."

• <http://www.health.harvard.edu/blog/flu-shot-linked-to-lower-heart-attack-stroke-risk-201310236795>

• <http://www.mayoclinic.org/diseases-conditions/heart-disease/in-depth/flu-shots/art-20044238>




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### Shedders and Spreaders will or will not show s/s of illness

- **23%** of unvaccinated people with serologic evidence of infection reported respiratory or flu-like symptoms.
- **17%** of people with PCR-confirmed influenza had medically attended illness.
- "...most influenza infections are asymptomatic".

The Lancet March 17, 2014

(Or think of Typhoid Mary)



[http://www.thelancet.com/journal/lanres/article/PIIS2213-2600\(14\)2970034-7/abstract](http://www.thelancet.com/journal/lanres/article/PIIS2213-2600(14)2970034-7/abstract)

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### MMR—Autism Hoax

- **1998**- Claimed that MMR vaccine remained in guts of patients who had autism. **Only 12 cases in that study** that were hand-selected. Lancet Journal published.
- **2003**- Reporter Brian Deer uncovered **\$780,000 deal** for with the UK MD researcher stated in attempt to disprove MMR vaccine. Also uncovered the researcher's own disproof.
- **2004**- Lancet Journal Retracts study due to lack of scientific principles and fires Editor who has social connections to the researcher.
- **2006**- Sunday Times uncovered **\$400k more undisclosed funding to the MD researcher** by pharmaceutical companies with Measles treatment patents.
- **2010**- Researcher has Medical License revoked in the U.K. for being "dishonest, callous, unethical". Moves to U.S. as paid hero of anti-vaccine movement.

comprehensive examination of the MMR fraud.

• <http://www.immunize.org/bmj-deer-mmr-mmrfraud/>

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*"That's the problem with vaccines.  
When they work, absolutely nothing  
happens.  
Nothing."*

~Arthur Caplan, PhD  
<http://www.med.nyu.edu/pophealth/faculty/caplan01>



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Questions?



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