



Childhood Immunizations: Protecting children from disease





Disclosure

- Dr Singleton has received research funding from Pfizer Inc.
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Why Are Immunizations Important?



Herd Immunity



When enough children are vaccinated in a community, then a disease doesn't spread. This is known as "community" or "herd immunity"

Picture from
Marci Custer

Measles and Pertussis Mortality

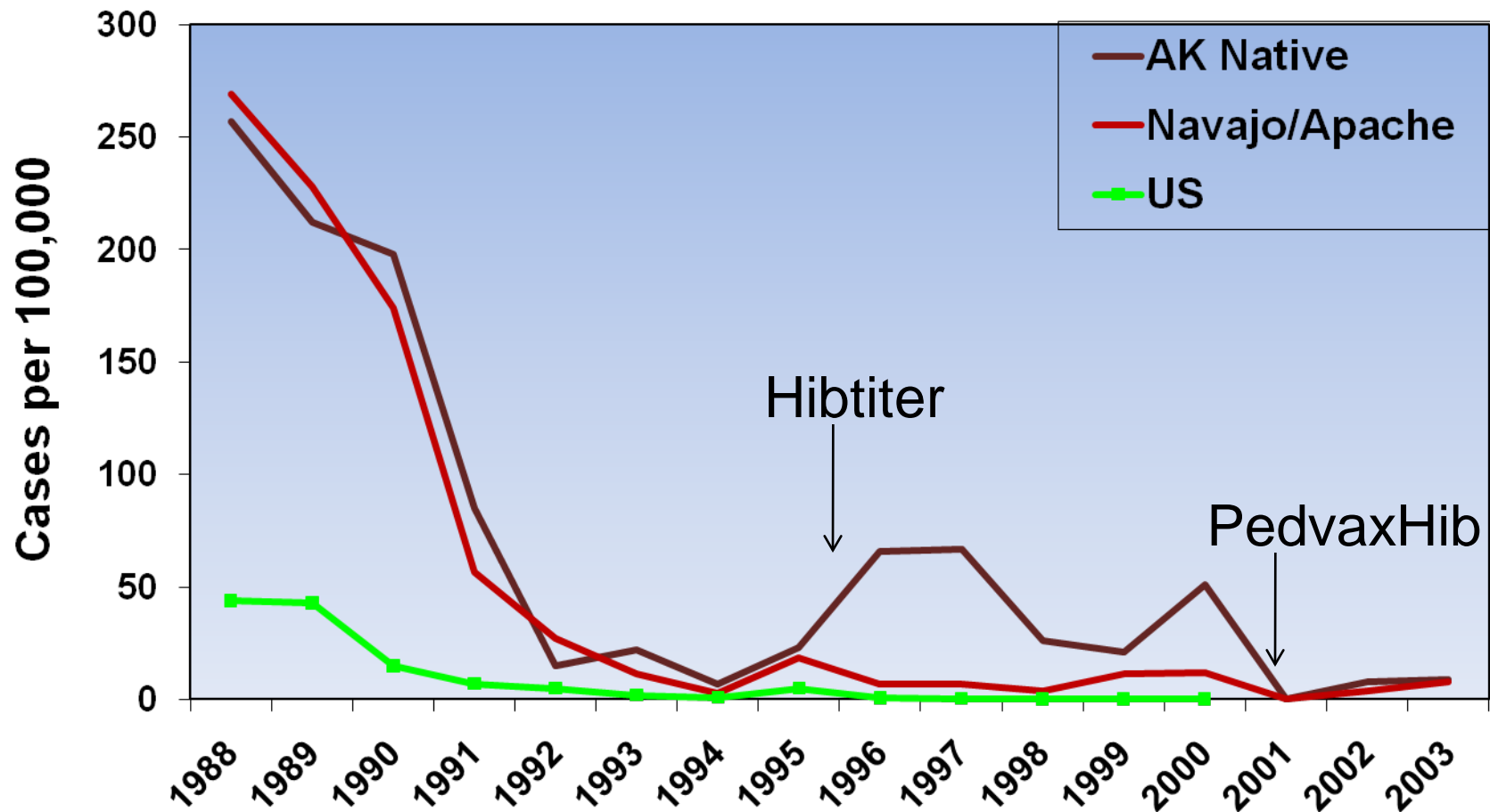
- In 1960-62, the **post-neonatal death rate** (1-11 month olds) in YK Delta infants was 5.6 per 100, or **5.6%**.
- Nearly half of these infant deaths were caused by **measles** or **pertussis**.
- The postneonatal death rate (1-11 months) decreased 10-fold between 1960-62 and 1980-81 – partly due to measles and pertussis vaccines.
- Since instituting the 2 dose measles requirement in Alaska, we have not had any outbreaks of measles in Alaska.

Lum et al, Public Health Rep 1986;101:309-14



Decline in Hib Disease:

US, Navajo/ Apache, AK Native, 1988-2003



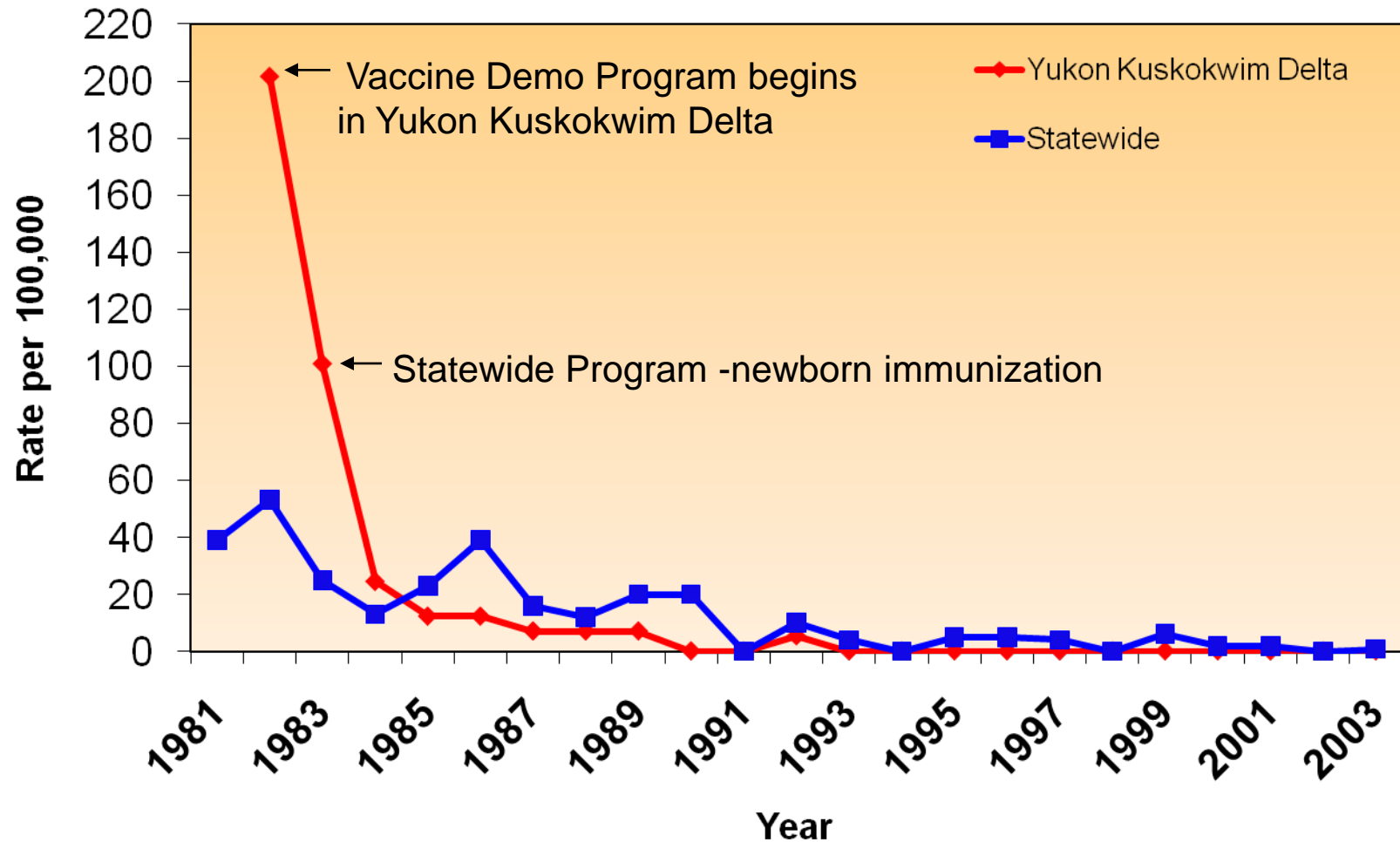
Hepatitis B in Alaska Native persons

- Before Vaccine :
 - 6% had been infected
 - 1500 hepatitis B carriers
 - Incidence 50 times the general U.S.
- Vaccination strategies
 - universal infant & catch-up vaccination starting in 1983
- Post-Vaccine Rate:
 - declined from 250 to $<0.4/100,000$
 - lowest hepatitis B rate any US ethnicity.

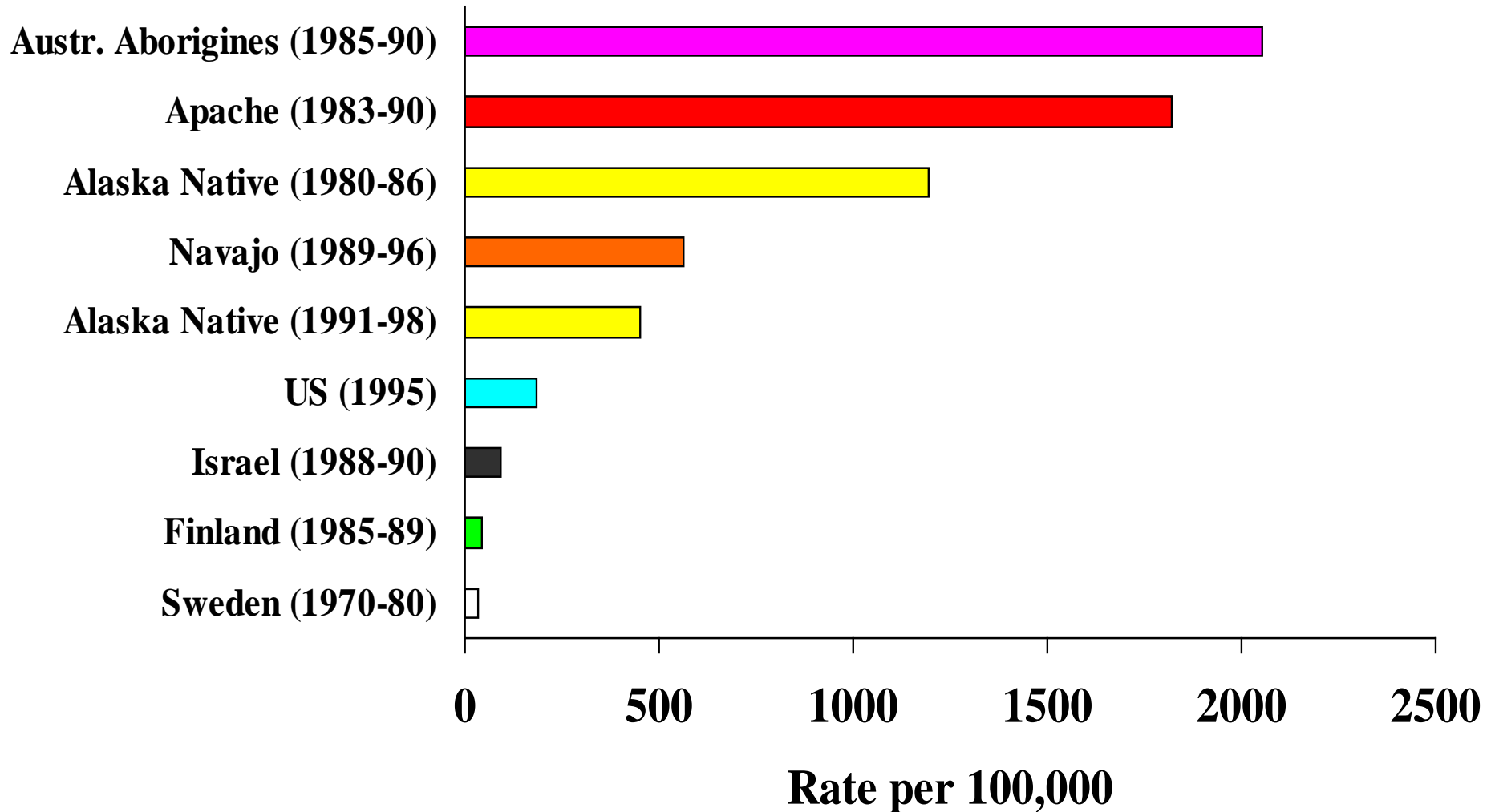


Symptomatic Hepatitis B Incidence

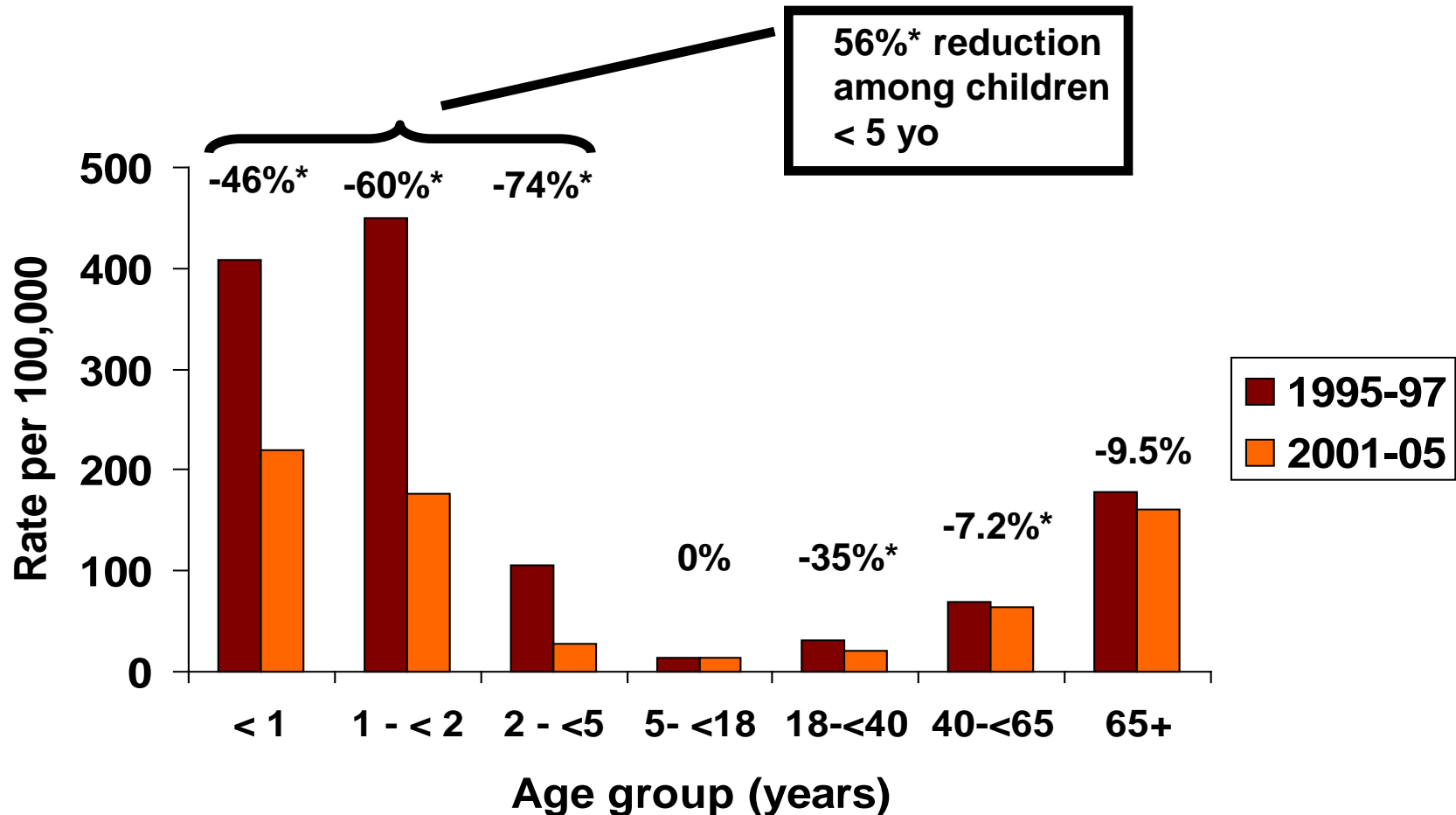
AK Native Persons 1981- 2003



Invasive Pneumococcal Disease Rates, Children < 2 years old before vaccine



Reduction in Rate of All-Serotype IPD, All Ages, Navajo





* $P < .05$

Recent consequences of delayed vaccination

- Hib meningitis death – 14 month old
 - had delayed booster dose because ill
- Hib meningitis, Severe brain damage – 2 mo old
 - 2 month old - delayed first vaccine because of mild illness
- Hib pneumonia – 14 month old
 - parents had refused all vaccines
- Pneumococcal meningitis - 9 month old
 - foster parents delayed vaccines – worried about autism
- Hepatitis A in a mother
 - unvaccinated 15 month old child had traveled to Africa




Achieving the Goal

- The GPRA childhood immunization goal is about protecting children from potentially deadly vaccine preventable diseases
 - Every child who does not meet the goal is a child who is unprotected
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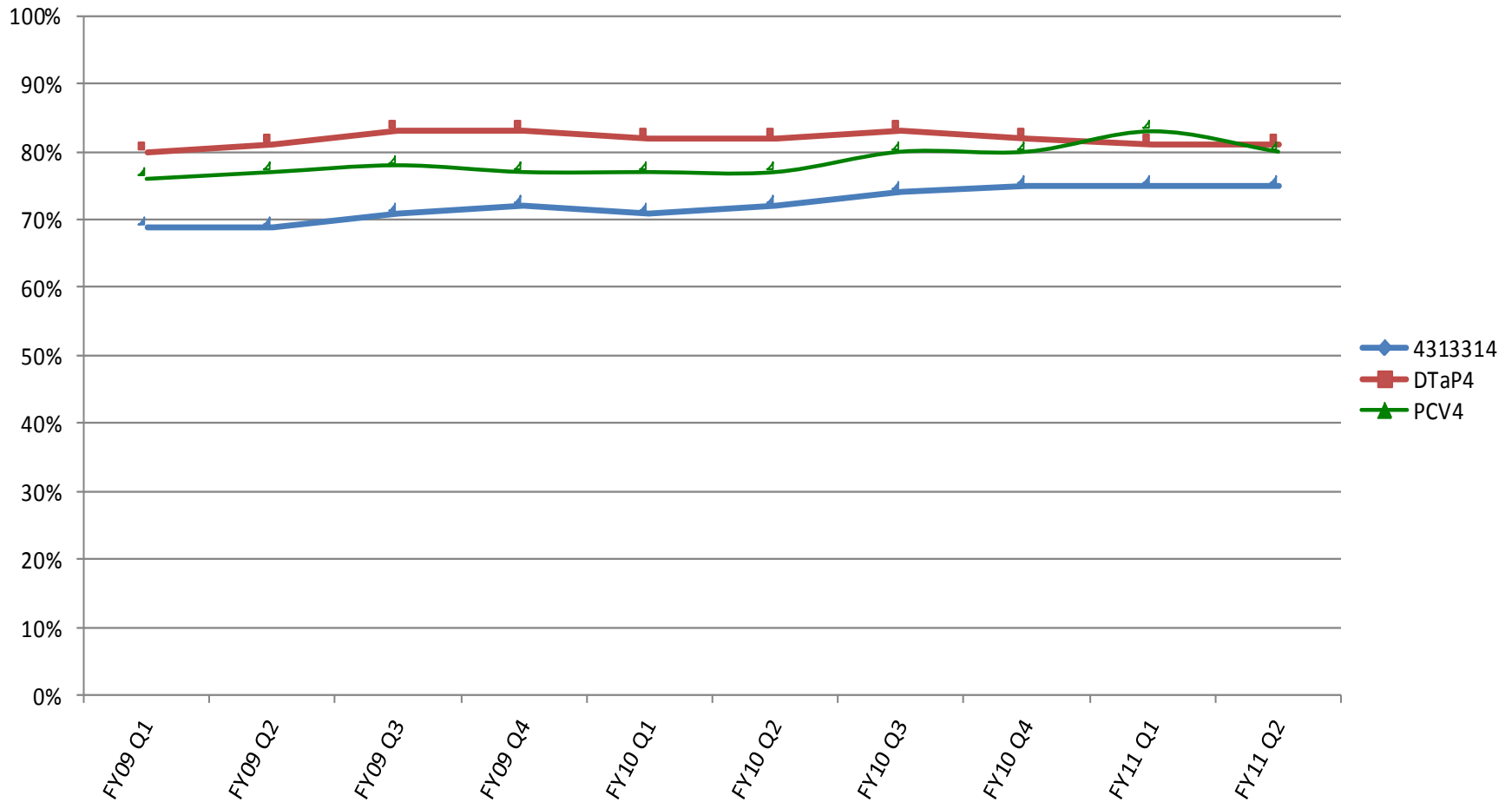
CRS vs. Immunization Package Reports

- Same data source (RPMS data)
 - Main difference is time period
 - CRS – children 19-35 months AS OF JUNE 30th
 - Immunization reports – children 19-35 months the day the report is run
 - CRS December (mid year) reports includes children NOT YET 19-35 months
 - Immunization report for December includes children who are currently 19-35 months
- 

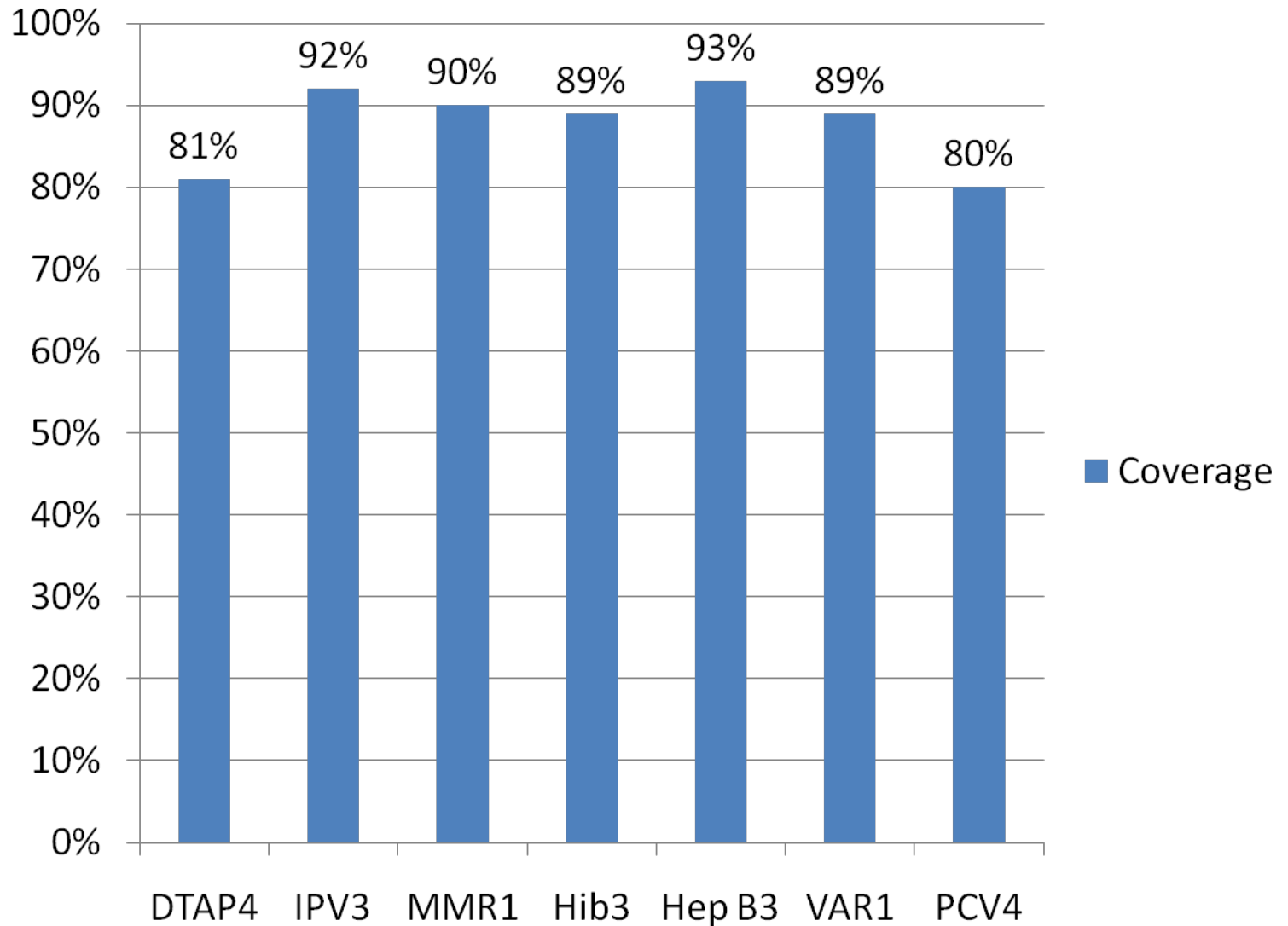
Immunization Package 2 year old report

4313314 Coverage

2009 - 2011

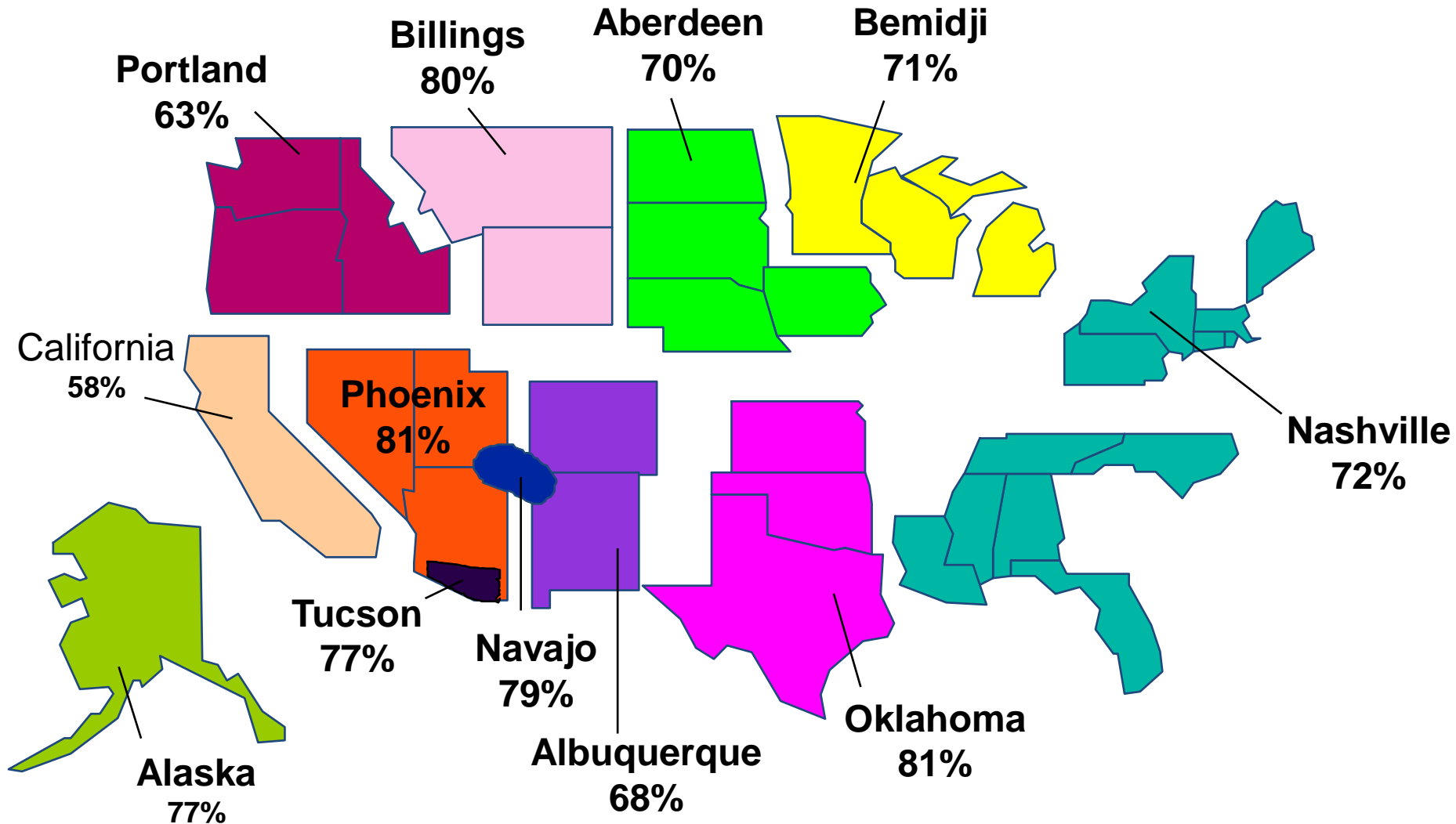


2 year old coverage by vaccine FY 2011 Quarter 1



4313314 Coverage

Quarterly Immunization Reports March 31st 2011



IHS All – 75%





Tools in the RPMS Package

3-27 Month Report





3-27 month old report

- Allows real-time monitoring of immunization coverage
 - Identifies children falling behind while there is still time to do something about it!
 - High coverage in 3-27 month old report = High 2 year old coverage = High GPRA measure coverage
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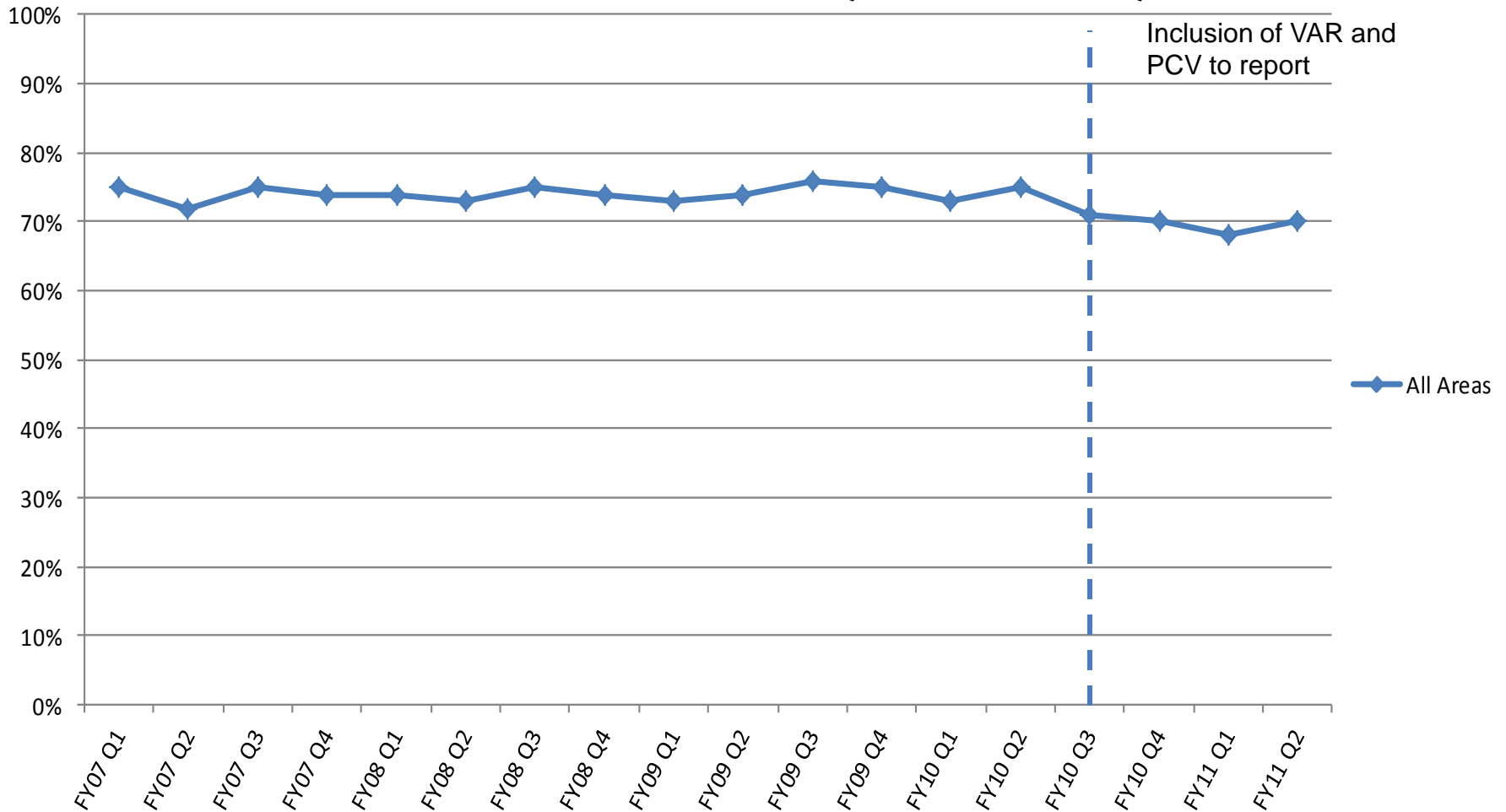
Facility: UNSPEC MED CTR

	Age in Months						Totals
	3-4	5-6	7-15	16-18	19-23	24-27	
# in Age	138	138	587	190	275	271	1599
Minimum Needs	1-DTaP 1-POLIO 1-HIB 1-HEPB	2-DTaP 2-POLIO 2-HIB 2-HEPB	3-DTaP 2-POLIO 2-HIB 2-HEPB	3-DTaP 2-POLIO 3-HIB 2-HEPB 1-MMR	4-DTaP 3-POLIO 3-HIB 3-HEPB 1-MMR	4-DTaP 3-POLIO 3-HIB 3-HEPB	
Approp. for Age	119 86%	101 73%	458 78%	148 78%	186 68%	217 80%	1229 77%
1-DTaP	119	126	539	179	258	259	1480
2-DTaP	28	102	515	170	248	253	1316
3-DTaP		25	463	160	237	248	1133
4-DTaP			15	68	190	222	495
1-POLIO	120	126	538	178	257	258	1477
2-POLIO	28	101	512	169	243	252	1305
3-POLIO		26	459	158	228	243	1114
1-MMR			168	154	238	247	807
1-HIB	120	126	538	178	258	260	1480
2-HIB	27	102	506	171	243	253	1302
3-HIB			181	149	223	236	789
4-HIB			6	10	16	26	58
1-HEPB	128	133	548	182	262	264	1517
2-HEPB	101	125	521	176	249	252	1424
3-HEPB	19	77	456	166	236	244	1198
1-VAR			141	139	215	226	721
1-HEPA				1	1	134	136
2-HEPA						1	1
1-PNE	118	126	533	177	252	256	1462
2-PNE	26	99	506	167	238	250	1286
3-PNE		25	405	131	214	234	1009
4-PNE			7	24	111	132	274
1-ROTA	118	126	533	177	252	256	1462
2-ROTA	26	99	506	167	238	250	1286
3-ROTA		25	405	131	214	234	1009
Total Patients included who had Refusals on record							14

Age Appropriate Immunization Coverage

3 - 27 months

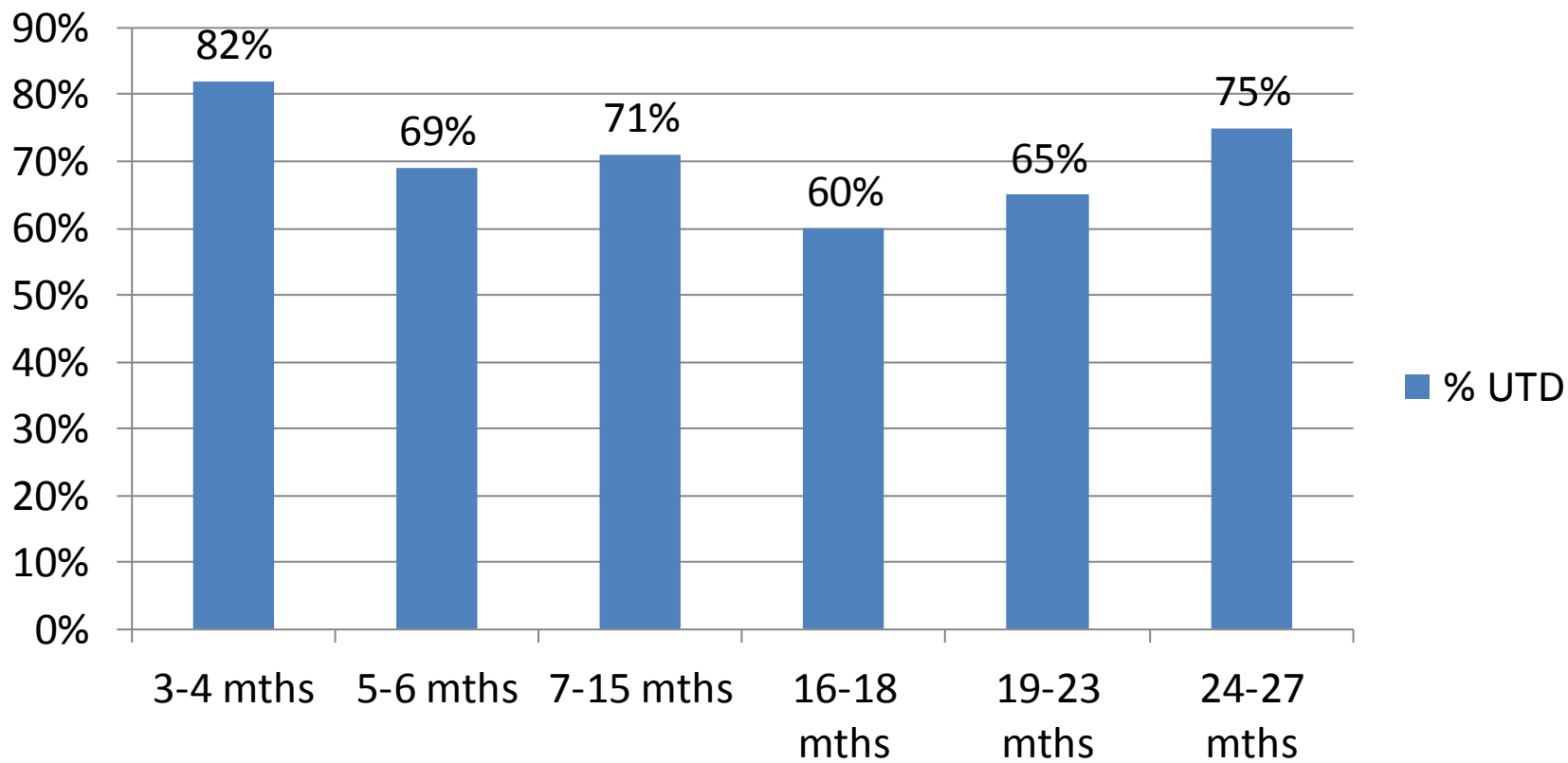
FY 2004 Q1 - FY 2011 Q1



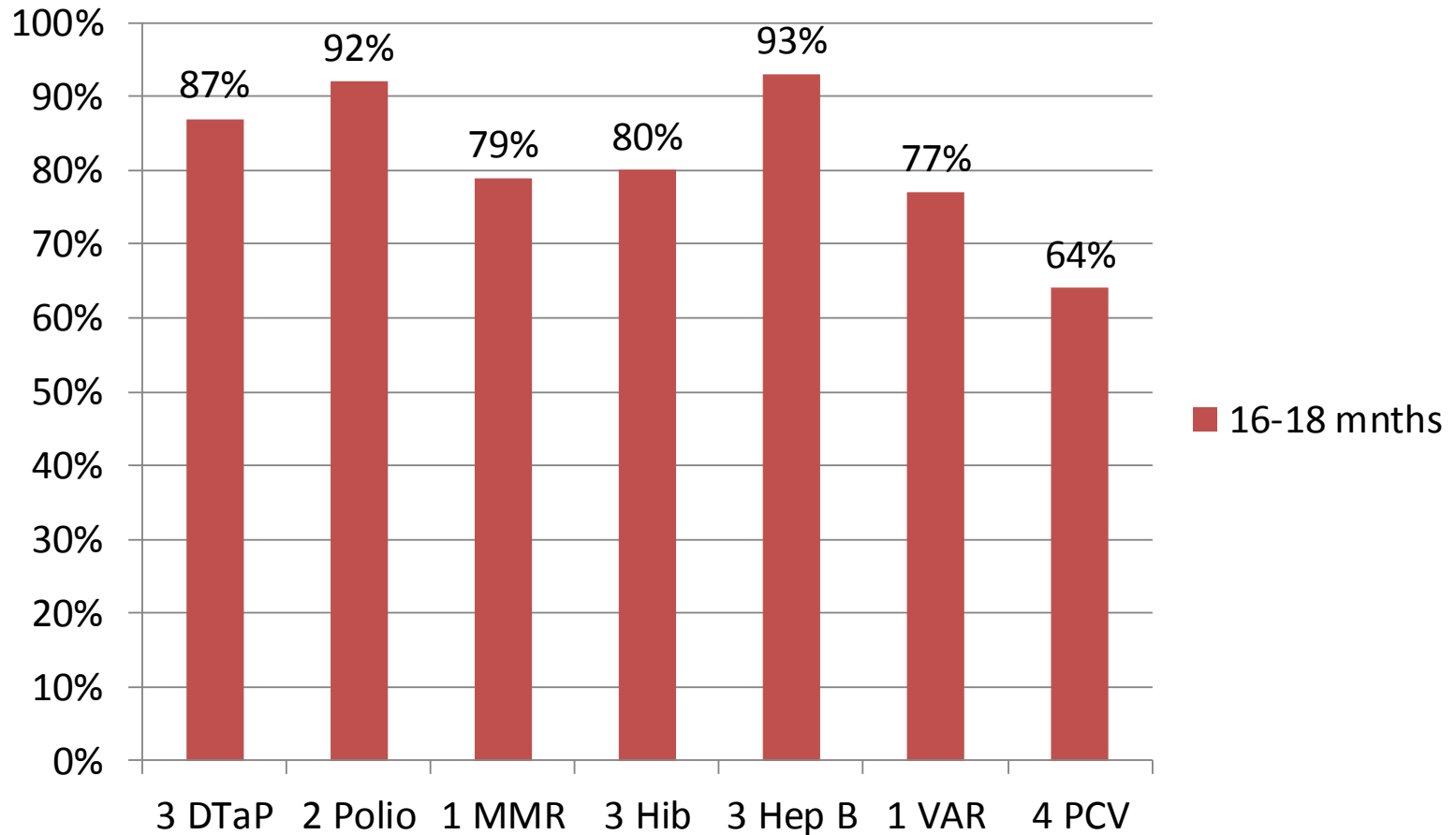
Coverage by Age Group

FY 2011 Q2

% UTD



Coverage by Vaccine



16-18 mnths – 3 DTaP, 2 Polio, 3 Hib, 2 Hep B, 1 MMR, 4 PCV

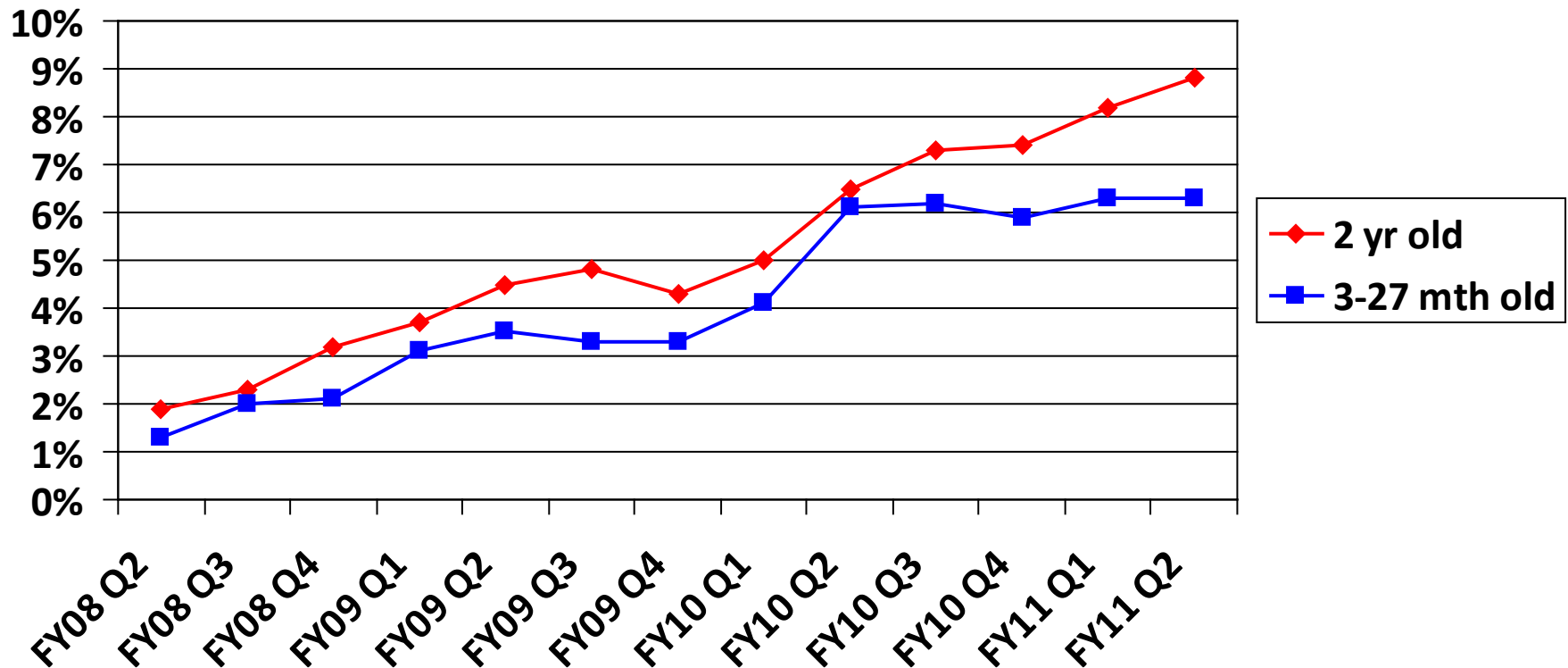


Reasons for low coverage

- Delayed start of vaccinations
 - Children starting PCV late may not need 4 doses
- Waiting until 15 months to forecast DTaP and PCV
- Increase in refusals?


Refusals

FY 2008 – FY 2011





Strategies to Improve Coverage

- Review the data!
 - Run the 3-27 month report regularly
 - Review the Not Current list
 - Review forecasting option
 - e.g. forecasting vaccines at 12 months
 - Utilize Reminder/Recall
 - Letters in RPMS
 - FREE Postcard/Phone, text messaging and email reminder programs sponsored by pharmaceutical companies
 - Parent Education
- 

PCV Postcard/Phone Reminder Program

PRSRT STD
U.S. POSTAGE
PAID
MAILED FROM
ZIP CODE 96004

**IS YOUR CHILD
FULLY PROTECTED?**



HPV Email Reminder Program

(3741 unread) Yahoo! Mail, avgroom - Windows Internet Explorer

http://us.mg6.mail.yahoo.com/dc/launch?gx=18&rand=19057ogcee02c

File Edit View Favorites Tools Help

Groom, Amy V. (IHS/HQ) - O... (3741 unread) Yahoo! M... x

Home Feeds (1) Print Page Tools

YAHOO! MAIL Hi, Amy | Busy | Sign Out

Yahoo! Games Search Web Search

Check Mail New

Search Mail... Go

What's New **Inbox** 4294 emails **Welcome to the reminder**

Delete Reply Forward Spam Move Print Actions

3 to complete
MAKE SURE YOU GET ALL 3 DOSES
SO THAT YOU GET THE BEST PROTECTION.

WELCOME TO THE 3 TO COMPLETE REMINDER PROGRAM.

You made the choice to help guard yourself or your child against cervical cancer, genital warts, and other human papillomavirus (HPV) diseases. GARDASIL is a series of 3 doses. And now there are 2 more doses to go.

We know schedules can get busy and some things can be easy to forget. That's why we are glad you signed up to be reminded about the remaining doses of GARDASIL. **Be on the lookout for more reminders to help you stay on track.**

INFORMATION ABOUT GARDASIL

GARDASIL is the only HPV vaccine that helps protect against 4 types of HPV. In girls and young women ages 9 to 26, GARDASIL helps protect against 2 types of HPV that cause about 75% of cervical cancer cases, and 2 more types that cause 90% of genital warts cases.

In boys and young men ages 9 to 26, GARDASIL helps protect against 90% of genital warts cases.

GARDASIL also helps protect girls and young women ages 9 to 26 against 70% of vaginal cancer cases and up to 50% of vulvar cancer cases.

GARDASIL may not fully protect everyone, nor will it protect against diseases caused by other HPV types or against diseases not caused by HPV. GARDASIL does not prevent all types of cervical cancer, so it's important for women to continue routine cervical cancer screenings. GARDASIL does not treat cancer or genital warts. GARDASIL is given as 3 injections over 6 months.

The duration of protection of GARDASIL has not been established.

IMPORTANT SAFETY INFORMATION

Anyone who is allergic to the ingredients of GARDASIL, including those severely allergic to yeast, should not receive the vaccine. GARDASIL is not for women who are pregnant.

The side effects include pain, swelling, itching, bruising, and redness at the injection site, headache, fever, nausea, dizziness, vomiting, and fainting. Fainting can happen after getting GARDASIL. Sometimes people who faint are hurt by themselves. For this reason, your or your child's health care professional may

MAKE SURE YOU MAKE AN APPOINTMENT FOR THE SECOND DOSE.

VACCINATION SCHEDULE:

The 1st dose was:	
1ST DOSE	[04/2011]*
The 2nd dose should be:	
2ND DOSE	[06/2011]*
The 3rd dose should be:	
3RD DOSE	[10/2011]*

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- Flickr
- My Cool Fonts

TODAY: Mon, 5/16 - Thu, 6/30 No events

Start Yahoo! - Windows Intern... (3741 unread) Yahoo!... Protecting_Children_fro...

6:06 PM

Forecasting Options

Training DB - TNVTPlus

Session Edit View Commands Script Help

* SELECT FORECASTING OPTIONS *

Versions 1, 3, 5 and 11 forecast the first vaccines series at 6 wks; the others beginning at 2 mths. All versions forecast Rotavirus at 2 (6 wks), 4, and 6 mths, and Influenza between Sept 15 and March 15 for infants 6 months-18 years (or all ages). Options 3,4 & 6 forecast Hep A starting at 12 months, while options 1,2,5 and 11 forecast Hep A at 15 months. Option 11 does not forecast Hep A or Hep B in persons over 18 years, regardless of prior doses. All options forecast Tdap, MCV4, and HPV for adolescents per ACIP recs.

Please select an Option below by entering the its corresponding number:

Option	6 Mths	12 Mths	15 Mths
1) ...	IPV	Hib, MMR, Pn, Var	DTaP, HepA
2)	Hib, IPV, MMR, Pn, Var	DTaP, HepA
3) ...	IPV	DTaP, Hib, MMR, Pn, Var, HepA	
4)	DTaP, Hib, IPV, MMR, Pn, Var, HepA	
5) ...	IPV	Hib, MMR, Var	DTaP, Pn, HepA
6) ...	IPV	Hib, MMR, Var, HepA.....	DTaP, Pn
11) ...	IPV	Hib, MMR, Pn, Var	DTaP, HepA

Select Forecasting Rules: 3//

start | Inbox - Microsoft Out... | Protecting Children fr... | Immunizations Overv... | Training DB - TNVTPlus | 3:45 PM

Resources

- IHS Quarterly Immunization Reports
 - Division of Epidemiology/Vaccine Preventable Diseases page on www.ihs.gov
- Vaccine Resources
 - Children's Hospital of Philadelphia
<http://www.chop.edu/service/vaccine-education-center/home.html>
 - CDC
<http://www.cdc.gov/vaccines/ed/patient-ed.htm>

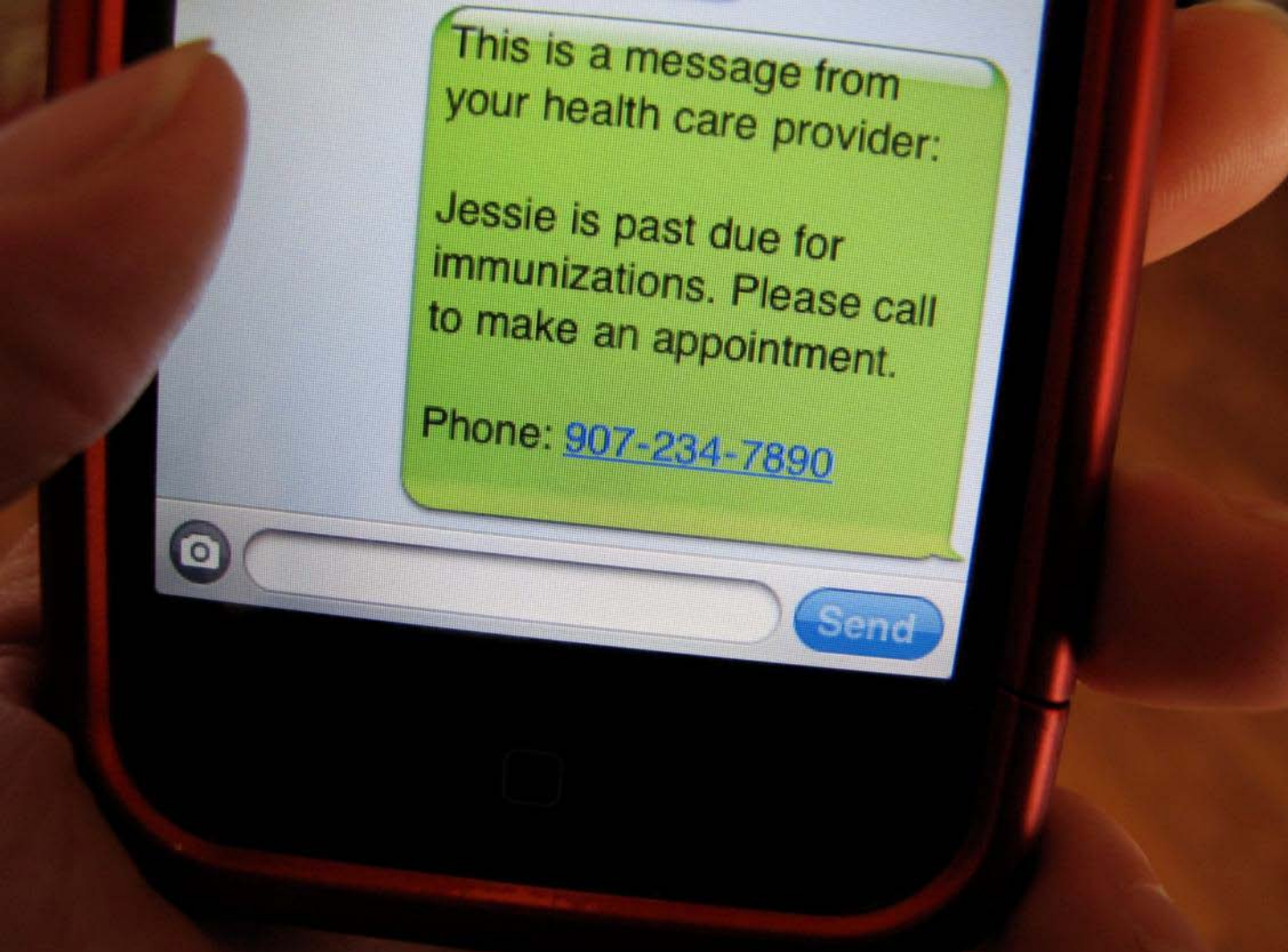
WHAT WE DO IN ALASKA TO ATTAIN HIGH IMMUNIZATION RATES



**Parent
Reminders
... an old idea
that is still
very relevant.**

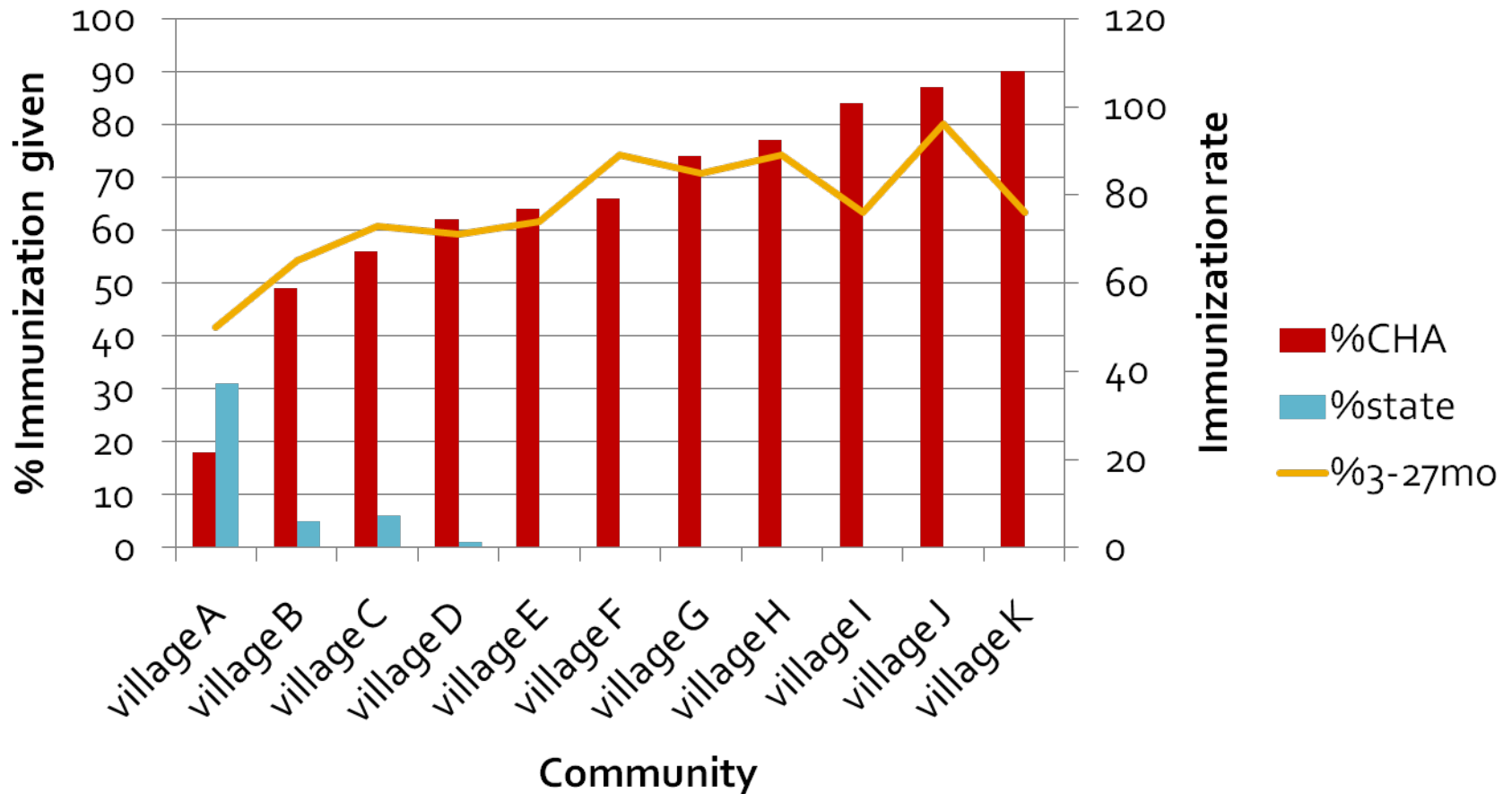
**At left: Electric Car (circa 1906)
Made in Hartford USA**





Innovation is in the delivery,
not in the strategy

Train all Providers to Give Vaccines



% of non-flu vaccines given by CHAs in village, compared with 3-27month immunization rate 11/10
Villages with low rates had staffing problems and State PHNs provided more immunizations.


Use Opportunities to Promote Vaccines:

Kusko in Bethel, July 4th





Make Immunizations High Profile

- Talk with administrators, Clinical Directors, provider staff, nurses etc.
 - Share Vaccine Preventable Disease stories – especially stories of missed opportunities
 - Share immunization rates Quarterly
 - Run immunization rates by Providers
 - Develop a vaccine advocate
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