

ASSESSING ONGOING MONTHLY REMINDER/RECALL -- WHO + WHERE + WHY + OUTCOME



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REMINDER
RECALL
IMPROVES
VACCINATION
RATES

- ▶ Dentists, mammography centers and veterinarians know this!
- ▶ Groom et al, Immunization Information Systems to Increase Vaccination Rates, A Community Guide Systematic Review. J Pub Health Management and Practice. 2015 May/June.

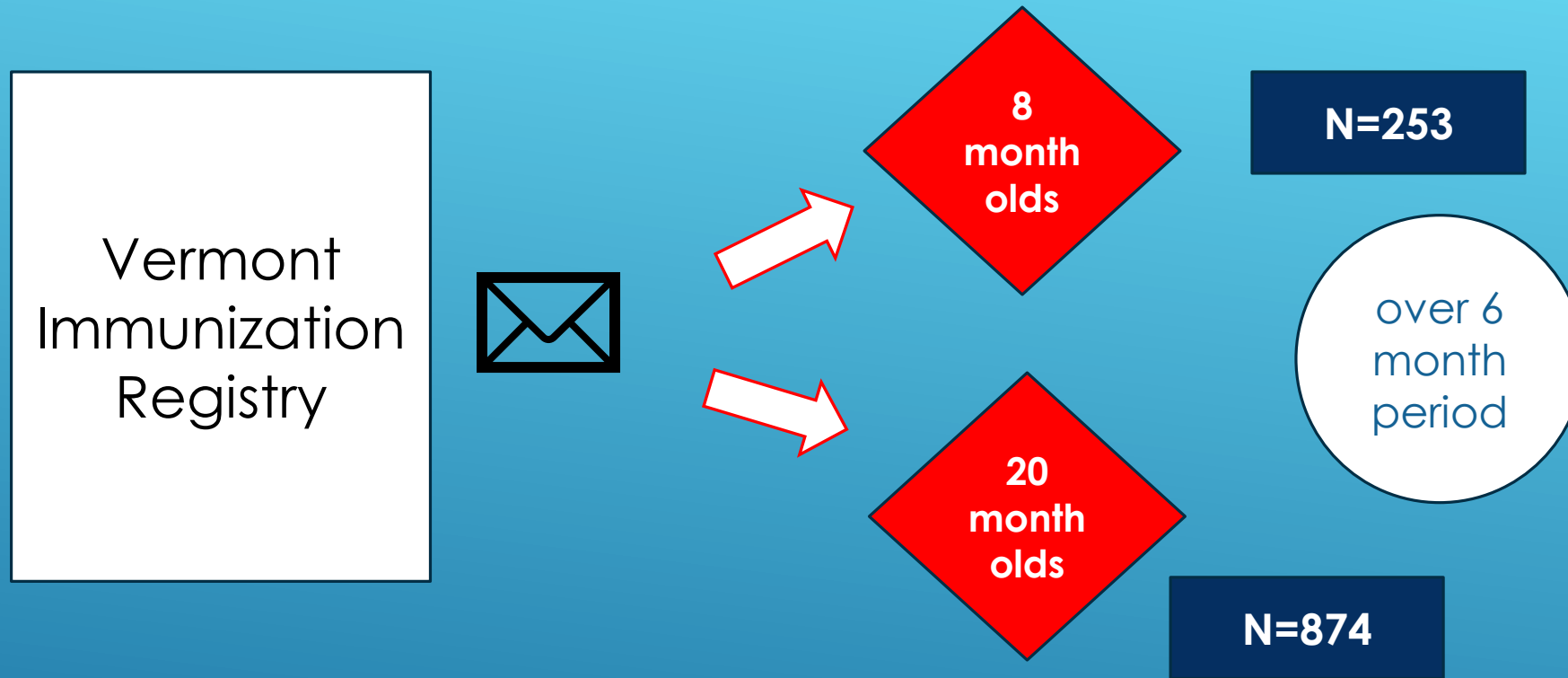
WHAT ELSE CAN REMINDER RECALL TELL US?

- ▶ What is the **geographic distribution** of recall?
- ▶ Which **vaccine series** most responsible for NUTD?
- ▶ **How far from UTD** are the Recall-ees?
- ▶ What is **difference in immunization status** between baseline and 6 weeks post?
- ▶ Any **other qualities** associated with “effective” recall?



- Vermont is a universal state and nearly all providers serving children participate in VFC.
- 98.5% VFC providers report to the IMR.
- Registry reporting is mandated by state law.
- Registry is co-located in database with Vital Records.

BACKGROUND



RECALL PROJECT HAS BEEN
ONGOING **SINCE 2011**

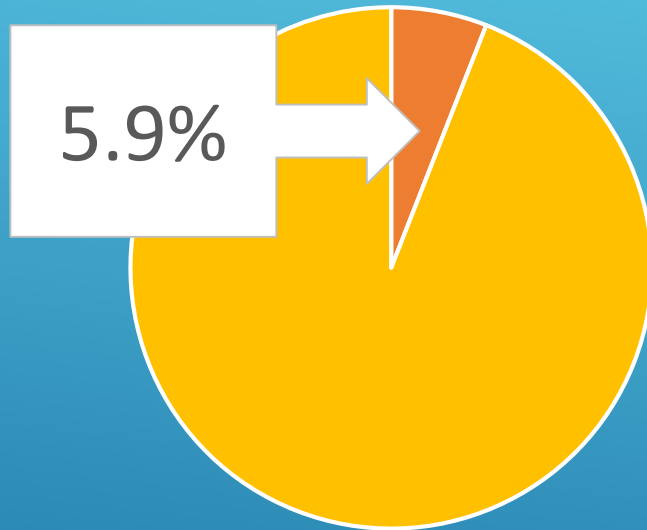
METHODS

- ▶ Modality – (snail) mail contact
- ▶ Frequency – once at 8 months, once at 20 month if not up to date
- ▶ Selection – Forecaster (WIR)
- ▶ Recipient – “Parent or Guardian of”
- ▶ Source – Vermont Department of Health Immunization Program...
CENTRALIZED

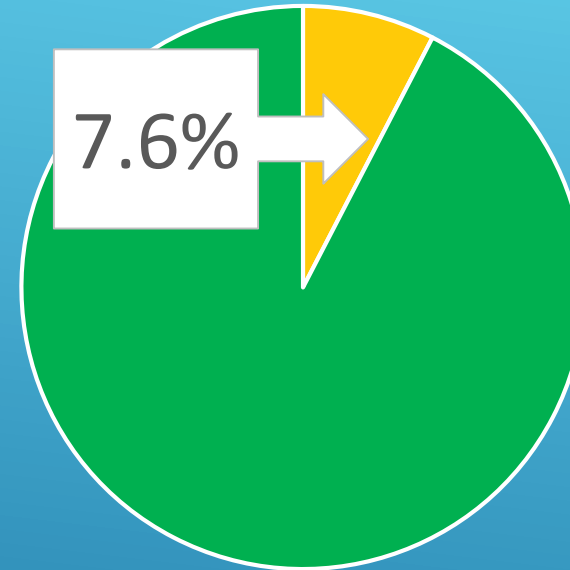
METHODS

- ▶ Tracked recall for 6 months (Nov2017 – April 2018)
- ▶ Assessed impact at 6 weeks post recall using Dose Counts.
- ▶ Analyzed for patterns

8 months - LTF



20 months - LTF

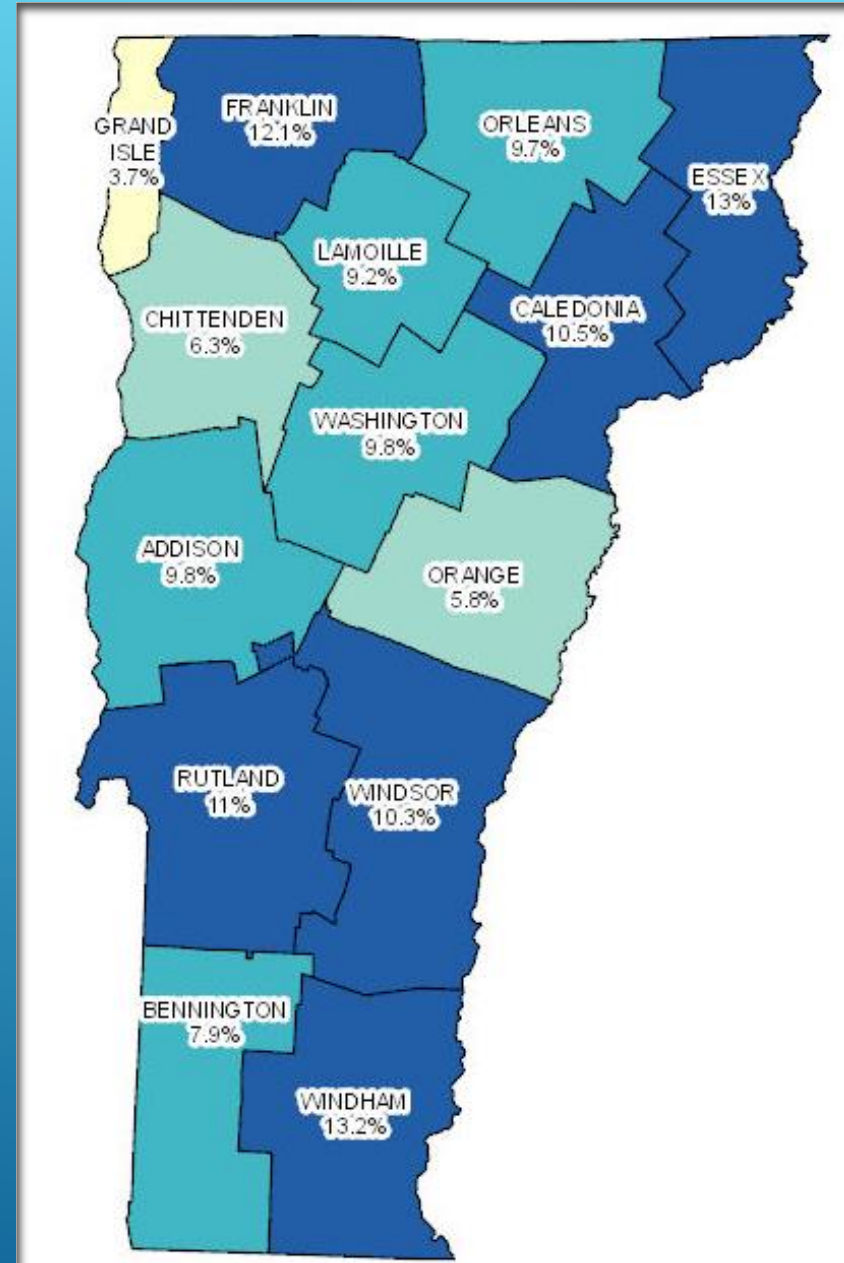
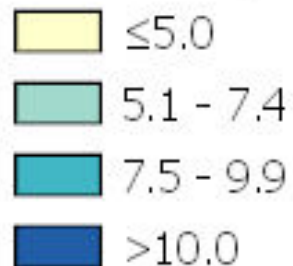


HOW MANY RECALL LETTERS WERE
RETURNED/LOST TO FOLLOW-UP?

8 MONTH OLD SAMPLE

9.1% RECALLED

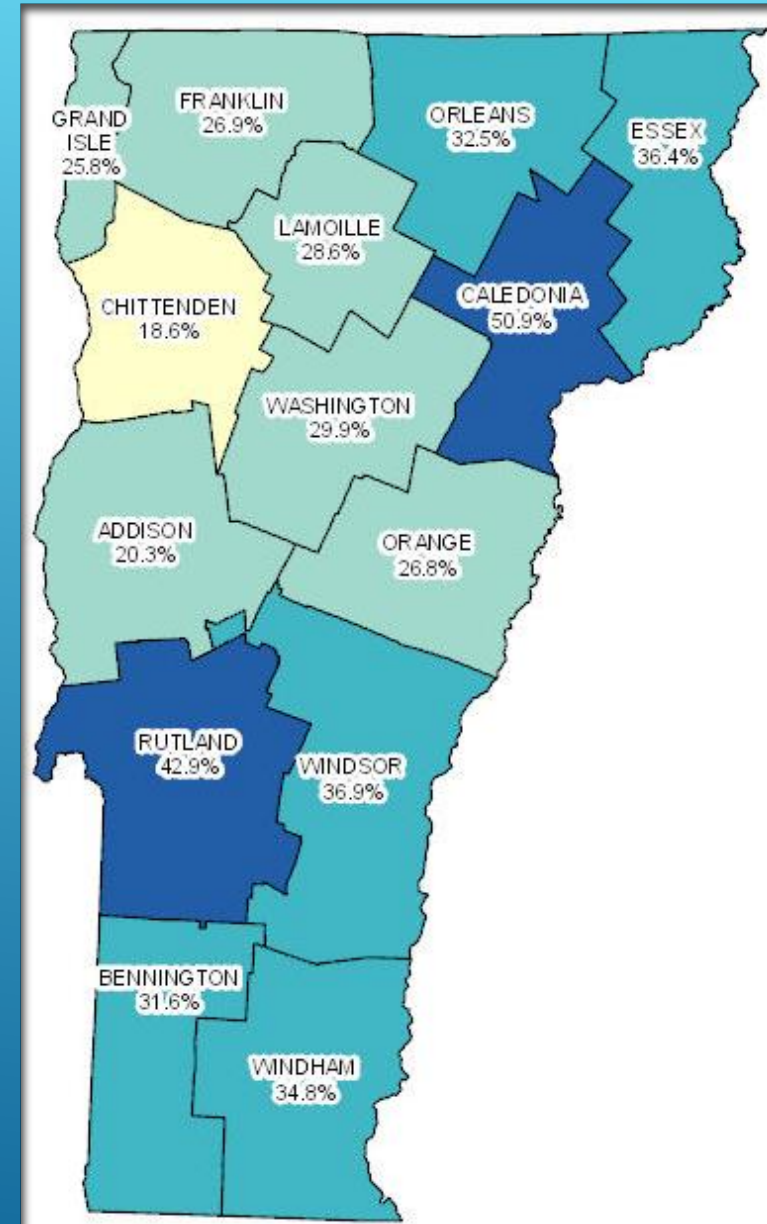
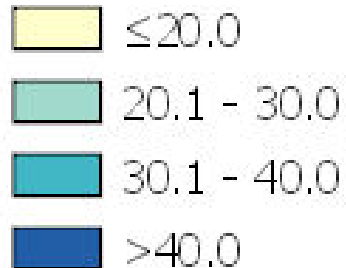
Percent of eight month olds recalled.



20 MONTH OLD SAMPLE

29.0% RECALLED

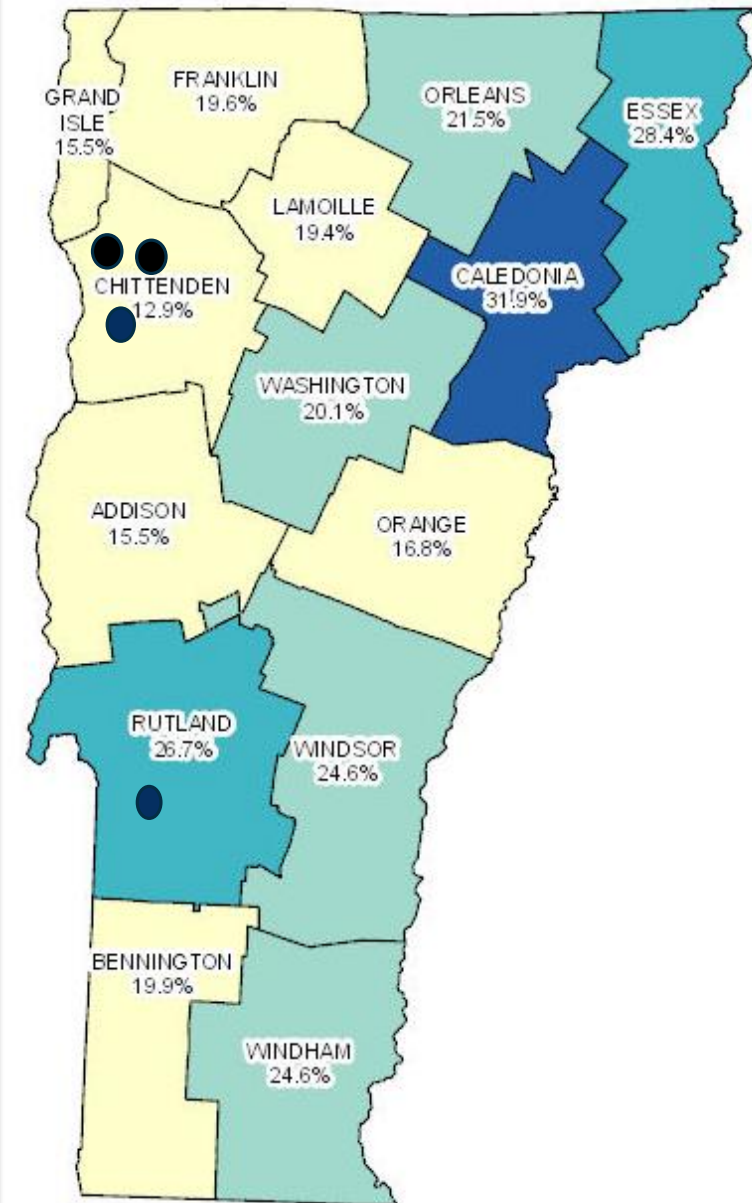
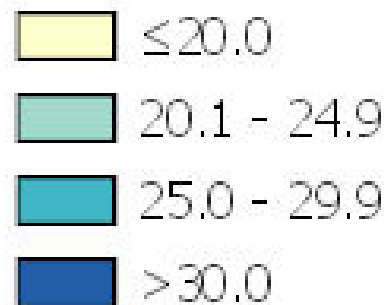
Percent of twenty month olds recalled.



COMBINED RECALL

19.6% ALL CHILDREN

Percent of eight and twenty month olds recalled.



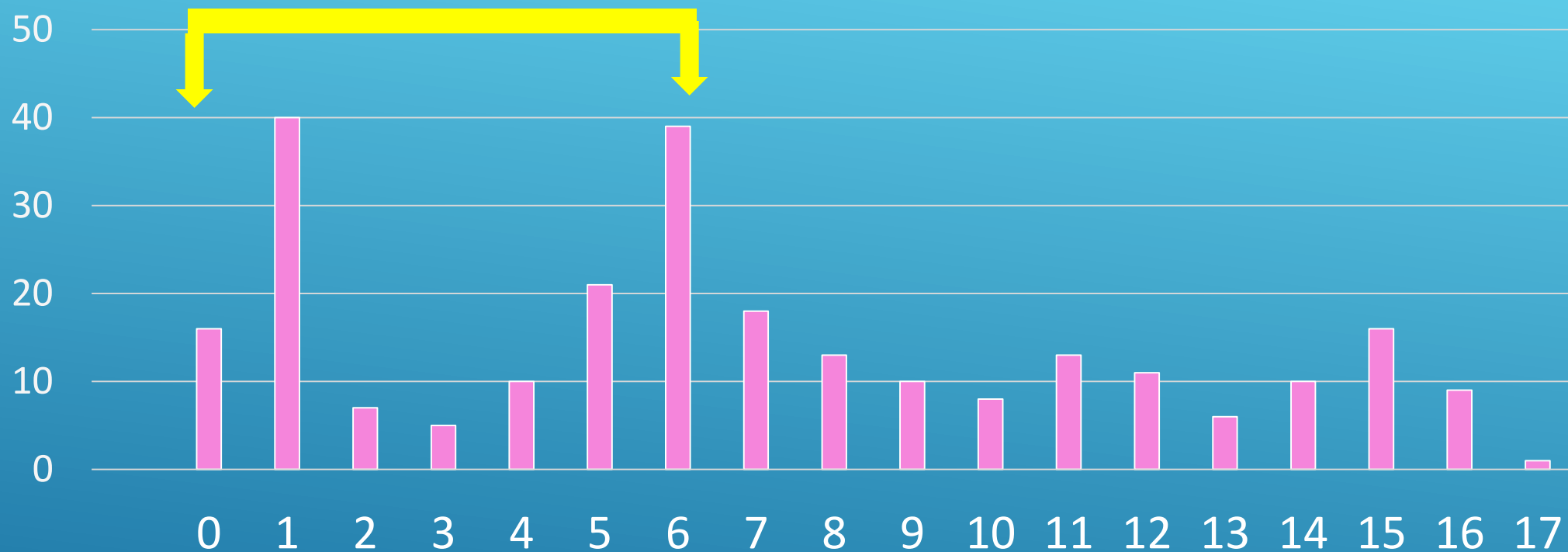
8 Months	--> Raw Score is 14				
Dtap	< 3 valid doses				
IPV	< 2 valid doses				
Hib	< 3 valid doses				
HepB	< 3 valid doses*				
PCV	< 3 valid doses				
* > 3 doses capped at 3					

DOSE COUNTS

20 Months	Raw Score is 21			
Dtap	< 4 valid doses			
IPV	< 3 valid doses			
MMR	< 1 valid dose			
Hib	< 4 valid doses			
HepB	< 3 valid doses*			
Var	< 1 valid dose			
PCV	< 4 valid doses			
HepA	< 1 valid dose			
* > 3 doses capped at 3				

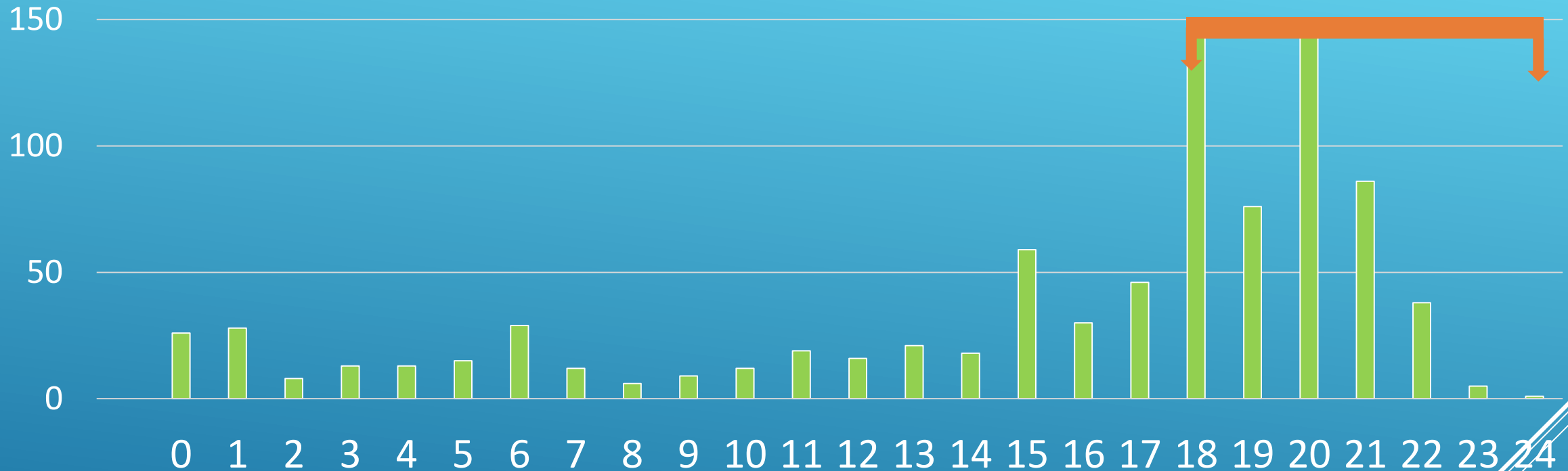
DOSE COUNTS

Distribution of Doses Achieved



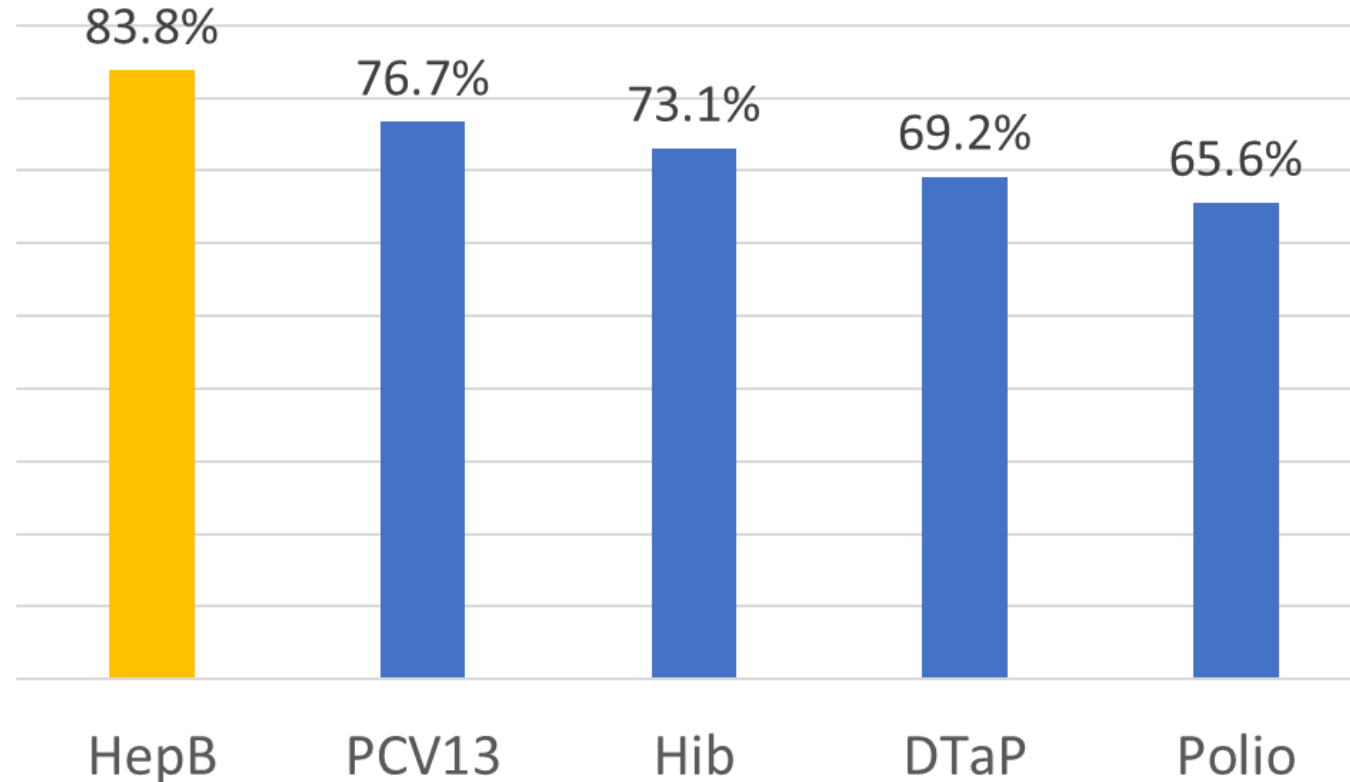
8 MONTHS – 14 DOSES (RAW SCORE)
BASELINE

Distribution of Doses Achieved



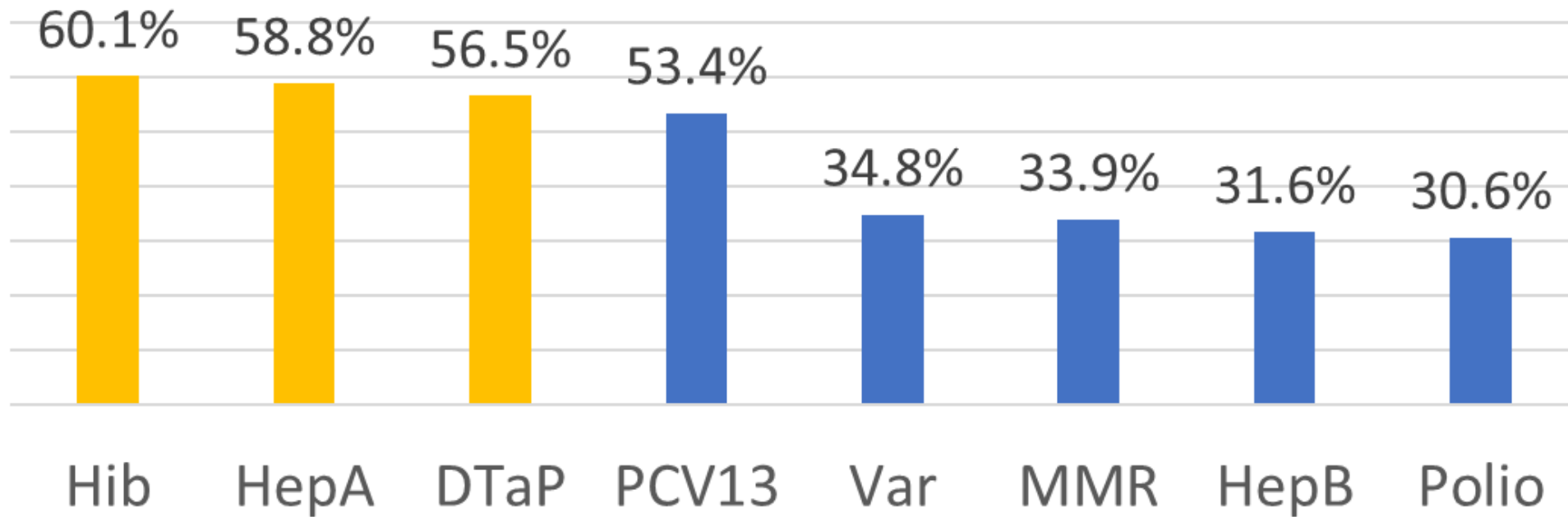
20 MONTHS – 21 DOSES (RAW SCORE)
BASELINE

Percent NUTD By Series, 8 Month Sample

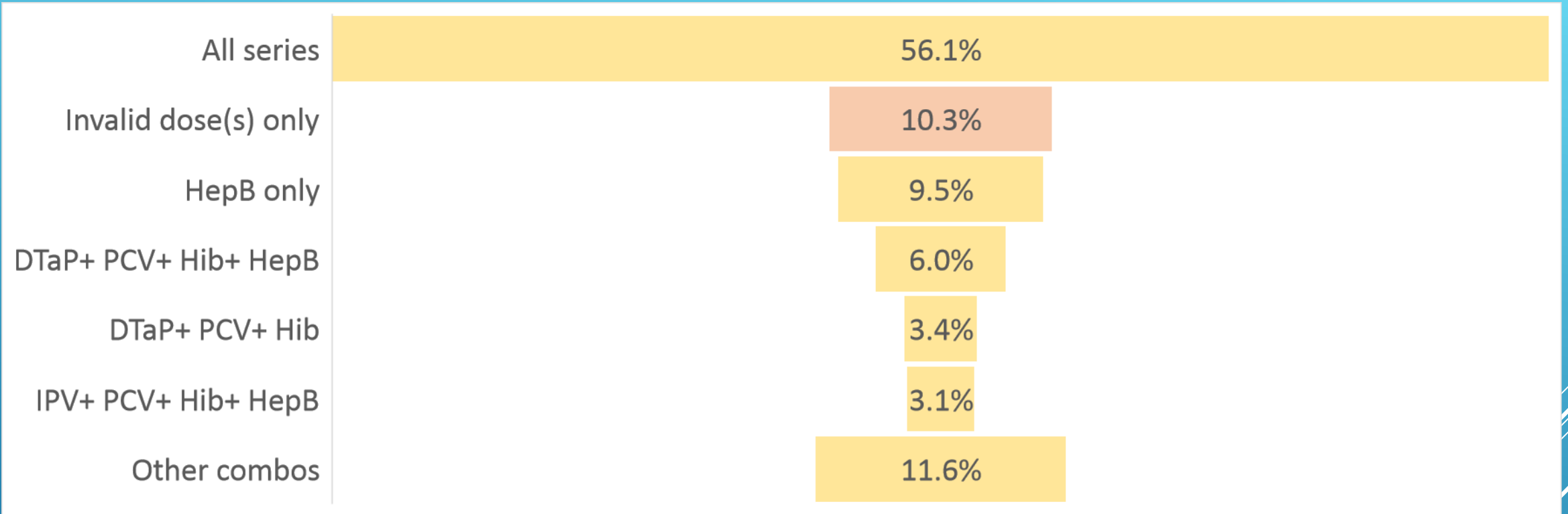


WHICH SERIES ARE DRIVING REMINDER RECALLS?

Percent NUTD By Series, 20 Month Sample



WHICH SERIES ARE DRIVING
THE REMINDER RECALLS?



MOST COMMON SITUATIONS DRIVING
RECALL – 8 MONTHS



MOST COMMON SITUATIONS DRIVING
RECALL – 20 MONTHS

	Baseline (n=253)	Follow up (n=253)
Range of total doses	0-17	0-17
Mean total doses (SD)	6.9 (4.8)	7.6 (5.0)
Median total doses	6	7
% at or above recommended total doses (n)	14.2% (36)	17.4% (44)

OUTCOME: 8 MONTHS OLD
BASELINE AND 6 WEEKS POST

	Baseline n=874)	Follow up(n=874)
Range of total doses	0-24	0-27
Mean total doses (SD)	15.4 (6.2)	15.7 (6.3)
Median total doses	18	18
% at or above recommended total doses (n)	14.9% (130)	18.9% (165)

OUTCOME: 20 MONTHS OLD
BASELINE AND 6 WEEKS POST

	8 Month		20 Month	
	Number recalled	Any Dose Increase	Number Recalled	Any Dose Increase
Total	253	30.8% (78)	874	9.0% (79)

OUTCOME – ANY INCREASE IN DOSES

Change Category	8 Months	20 Months
	% (n)	% (n)
Increased to recommended total	6.3 (16)	4.4 (38)
Increased but below recommended total	24.5 (62)	4.7 (41)
No increase	69.2 (175)	91.0 (795)

DETAILS OF CHANGE

Provider Type	8 Months		20 Months	
	Primary Practice, % (n)	Any Dose Increase, % (n)	Primary Practice, % (n)	Any Dose Increase, % (n)
Pediatrics	53.0 (134)	41.8 (56)	56.2 (491)	10.2 (50)
Family Practice	18.6 (47)	19.2 (9)	28.7 (251)	10.0 (25)
Naturopath	10.7 (27)	40.7 (11)	3.2 (28)	7.1 (2)
Unknown or Not VT Practice	17.8 (45)	5.0 (2)	11.9 (104)	2.1 (2)

OUTCOME – DIFFERENCES BY
PRIMARY PRACTICE ASSOCIATION

DISCOVERIES

- ▶ 8 Month Recall – driven by HepB
- ▶ 20 Month Recall – driven by multiple series
- ▶ Fewer kids with no immunizations (or very few) in 20 month sample.
- ▶ Urban areas more UTD than rural areas
- ▶ Pediatrician/Family Medicine – difference?
- ▶ 8 Month Recall shows more dose improvement at follow up than 20 month recall

LIMITATIONS

- ▶ The project is NOT trying to prove recall effectiveness.
 - ▶ No control group
 - ▶ Small sample size
- ▶ Dose count assessment shows change, not UTD
 - ▶ Can't identify invalid doses
- ▶ Observations about Family Medicine vs Pediatric patients could be confounded by Rural/Urban situation.

- ▶ Community Guide review article showed average change in vaccination rates in 6% of 13 recall projects. We saw 31% in 8 month sample and 9% in 20 month.
- ▶ Timing looks important. We will review with Immunization Program.
- ▶ Modality may matter. We assessed only a mailed recall.
- ▶ Messaging may matter too.
 - ▶ Could be more specific (what is due)
 - ▶ Could come from provider name instead
 - ▶ Could include educational message to address hesitancy

THINGS TO THINK ABOUT

CONTACT INFORMATION

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