

Provider Feedback Reports for Improving Immunization Information System Data Quality to Monitor Vaccine Accountability and Immunization Coverage

**New York City
Department of Health and Mental Hygiene
Bureau of Immunization**

AIRA IIS Meeting, September 19, 2012
St. Paul, MN

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Citywide Immunization Registry (CIR)

- NYC's Immunization Information System (IIS)
- Mandatory reporting of immunizations
 - Birth to < 8 years old since January 1, 1997
 - Birth to < 19 years old since August 18, 2005
- Birth certificates loaded twice weekly
- Contains 58 million immunizations for 4.7 million individuals
- 93% of providers report regularly

NYC Vaccines for Children Program (VFC)

- ~72% of NYC children are eligible for publicly purchased vaccines distributed through VFC
 - VFC, S-CHIP, 317 vaccine for underinsured
- 85% of pediatric sites enrolled in VFC
- Non-universal distribution program
 - Providers purchase vaccine for private pay patients
- ~3.3 million vaccine doses distributed annually to hospitals, clinics and private practices at ~\$130 million

Immunization Program Challenges Before 2006

- Mandatory reporting not sufficient to get complete data in the CIR
 - Up-to-date (UTD) coverage underestimated
- VFC accountability inadequate
 - Based on provider self-reported doses administered report (DAR)

2006: Linked CIR and VFC (VACMAN) Databases

- Tied VFC vaccine distribution to CIR reporting
- Began producing CIR-generated DAR for each provider
 - # doses reported to CIR as VFC-eligible divided by # doses distributed to provider from VFC during the same period
- New policy: reduce vaccine orders for providers with $DAR < 90\%$

Implementation of VFC Policy Change

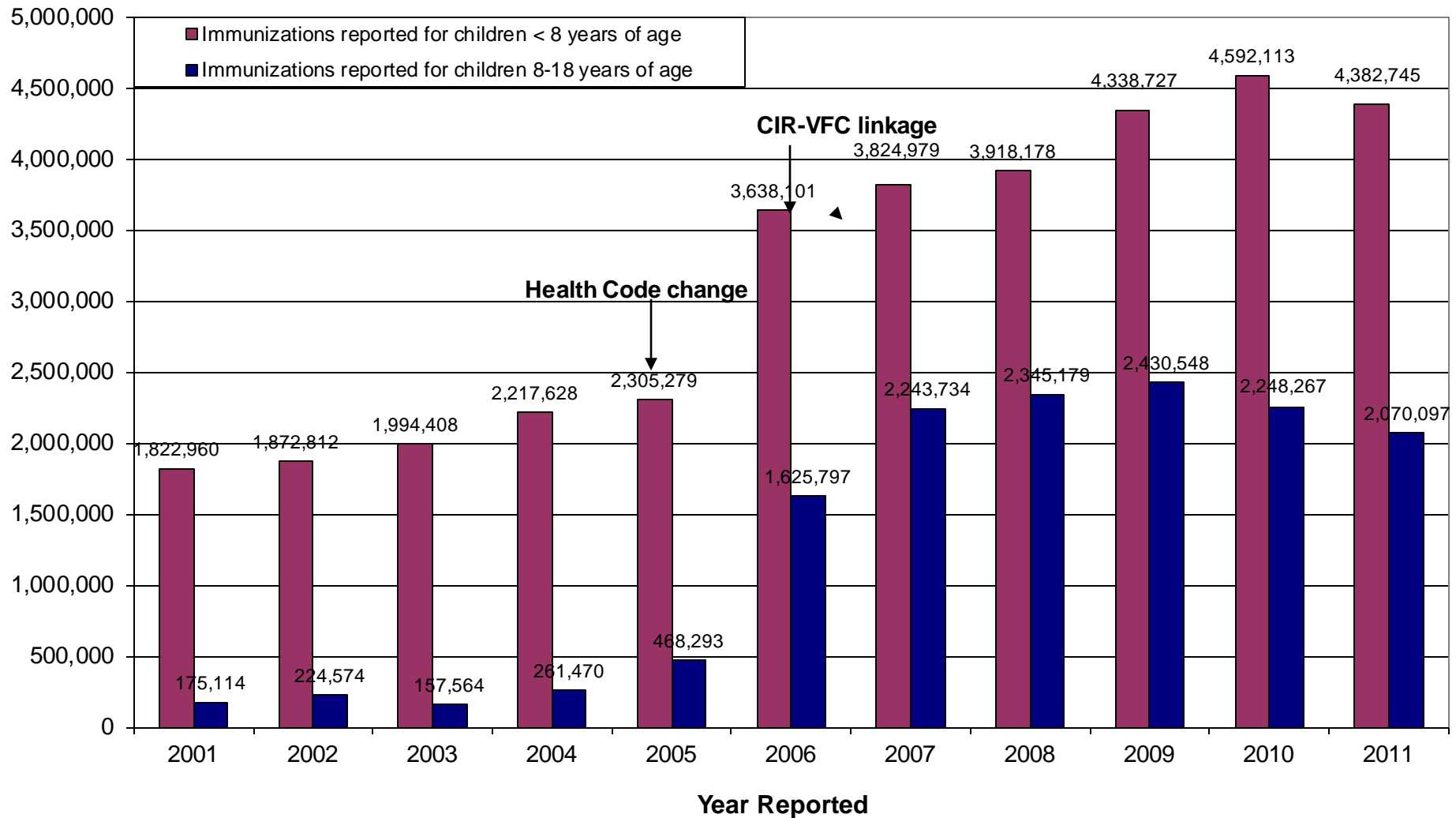
- Reduced order algorithm established based on CIR-generated DAR
 - Above 80%: 100% approved (no reduction)
 - 60% to 80%: 10% reduction
 - 30% to 60%: 25% reduction
 - Below 30%: 50% reduction

Provider Notification

- Providers notified in January 2006 of policy change effective September 1, 2006
- In June 2006, 3 months before policy went into effect, providers received letter with CIR-generated DAR
 - First provider feedback report

Increase in CLR Reporting

Number of Immunizations Reported to the CIR 2001-2011



VFC Accountability and Coverage Assessment

- More complete reporting to CIR of immunizations and VFC-eligibility
 - Use CIR to account for provider use of VFC vaccines
 - Enhanced CIR's ability to measure and track UTD coverage
 - Citywide
 - Provider
 - Patient

Expanded Provider Feedback Reports

	CIR- Gener ated DAR	CIR UTD Current Quarter	CIR UTD and DAR Current & Previous Quarters	Adolescent (13 yo) and flu coverage (6-59 m and 5-18 yo)	Percentile Ranking for UTD	Flu Coverage (6-59 m, 5-10 yo, 11-18 yo)
2006	✓					
2007	✓	✓				
2008	✓	✓	✓			
2009	✓	✓	✓	✓		
2010	✓	✓	✓	✓	✓	
2011	✓	✓	✓	✓	✓	✓
2012	✓	✓	✓	✓	✓	✓

Purpose of Expanded Feedback Reports

- Encourage complete reporting to the CIR
 - All immunizations (current, historical)
 - VFC-eligibility for all doses administered
- Provider Quality improvement
 - Providers achieving DAR > 90%, UTD \geq 90% (4:3:1:4:3:1 for 19-35 month-olds)
 - Recognized on Health Department Web site
 - Honored at Immunization Coalition quarterly meetings (providers with AFIX visit)

Sample Provider Feedback Reports

New York City Department of Health and Mental Hygiene -- Bureau of Immunization
CIR Facility Code: XXXX - Provider XXX
VFC PIN: XXXX

1. CIR-Generated UTD % for 2 year-olds

Review Date	# of 2 yr Patients	UTD % ^a	Citywide Percentile Ranking ^b
07/30/11	75	80%	72
04/30/11	73	74%	
01/31/11	69	65%	
10/31/10	73	63%	

2. CIR-Generated UTD% for 13 year-olds

Review Date	# of Males	UTD % ^c	Citywide Percentile Ranking ^b	# of Females	UTD % ^d	Citywide Percentile Ranking ^b
07/30/11	71	72 %	58	9	27 %	73

3. Doses Administered Report (DAR)

Period	VFC Doses Distributed	CIR Reported	DAR % ^e Target >90%
07/1/2010 – 06/30/11	2480	2252	91%
04/1/2010 – 03/31/11	2590	2081	80%
01/1/2010 – 12/31/10	2150	1537	71%
11/1/2009 – 10/31/10	1770	1320	75%

New York City Department of Health and Mental Hygiene -- Bureau of Immunization

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a. Percentage of 24-35 month-olds who received their last CIR-reported 4 DTaP: 3 polio: 1 MMR: 3 Hib: 3 Hep B: 1 varicella (4:3:1:3:3:1) series immunization at this facility, at 361 days of age or older, and who were up-to-date (UTD) on the series based on CIR data on the review date.

b. Percentile is a comparison to your peers for UTD coverage. For example, a percentile of 60 means that 60% of NYC pediatric practices have UTD coverage below your practice's coverage and 40% have coverage above your practice's coverage. Percentile is calculated for practices with at least 10 patients in the age range. Coverage for 13 year-olds is low citywide. Please be sure to vaccinate your patients aged 11-18 years and report all immunizations administered to the CIR.

New York City Department of Health and Mental Hygiene -- Bureau of Immunization

CIR Facility Code: XXXX - Provider XXX

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1. CIR-Generated UTD % for 24-35 Month-Olds						
Review Date	# of 24-35 mo Patients	UTD % ^a	Citywide Percentile Ranking ^b			
07/30/11	75	80%	72			
04/30/11	73	74%				
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2. CIR-Generated UTD% for 13 year-olds						
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01/1/2010 – 12/31/10		2150	1537	71%		
11/1/2009 – 10/31/10	1770	1320	75%			

d. Percentage of 13 year-old females at your facility UTD for 1 Td or Tdap, and 1 MCV4 or MPSV4, and 3 HPV based on immunizations reported to the CIR. A 13 year-old female is defined as belonging to your facility if you reported the last immunization administered to her at or after 9 years of age.

c. Percentage of 13 year-old males at your facility UTD for 1 Td or Tdap and 1 MCV4 or MPSV4 based on immunizations reported to the CIR. A 13 year-old male is defined as belonging to your facility if you reported the last immunization administered to him at or after 9 years of age.

e. This percentage is calculated by dividing the total number of VFC and CHPlusB doses reported (numerator) by the total number of VFC and CHPlusB doses received (denominator). Influenza doses are not included because the vaccine is seasonal. If the DAR is not at least 90%, the facility is subject to reduced vaccine shipments.

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February 17, 2012

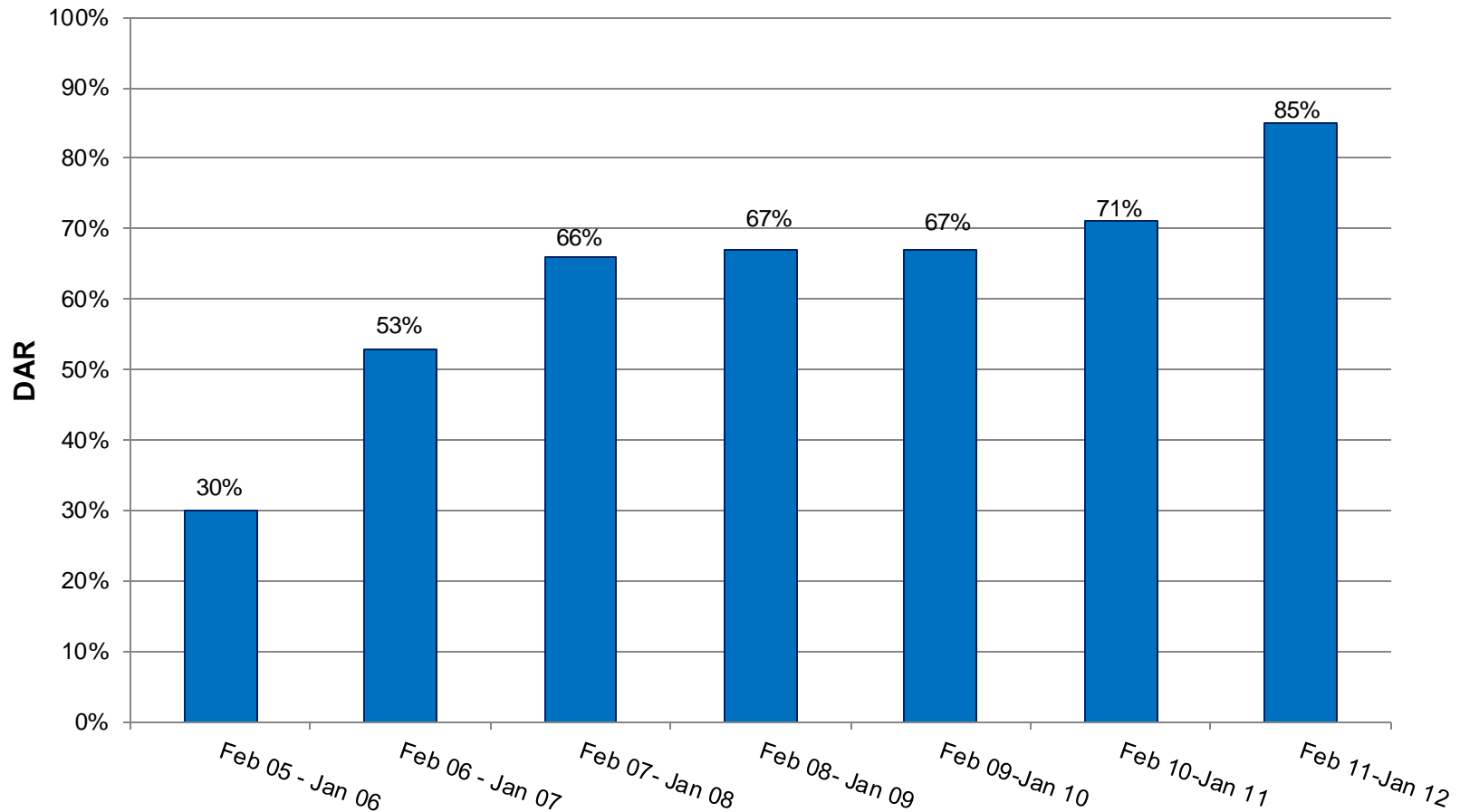
UTD Report for Current Quarter

CIR Code	VFC PIN	Name	1 CIR- Generated		2 CIR- Generated Influenza UTD %							
			19-35 mo UTD %		Review Date: 02/08/12							
			Review Date: 01/31/12		6-59 month-olds		5-10 year-olds		11-18 year-olds			
			# of patients	UTD % ^a (%ile) ^b	# of patients	UTD % ^c (%ile) ^b	# of patients	UTD % ^d (%ile) ^b	# of patients	UTD % ^e (%ile) ^b	# of patients	UTD % ^f (%ile) ^b
XXX	XXX	XXX VFC Provider Health Center										
010	0000	XXX Health Center	93	57% (37)	245	19% (40)	411	20% (68)	658	28% (74)		
020	0000	XXX Main Clinic	897	81% (77)	2,973	43% (75)	3,824	29% (80)	4,413	26% (71)		
030	0000	XXX Bella Vista Clinic	120	88% (88)	413	53% (87)	627	38% (88)	789	44% (91)		
040	0000	XXX Family Health Center	294	82% (78)	994	61% (94)	895	46% (94)	693	49% (94)		
TOTAL	XXX VFC Provider Health Center		1,404	80%	4,625	46%	5,757	32%	6,553	30%		

Increase in VFC dose-level Accountability in CIR

2006 - 2012

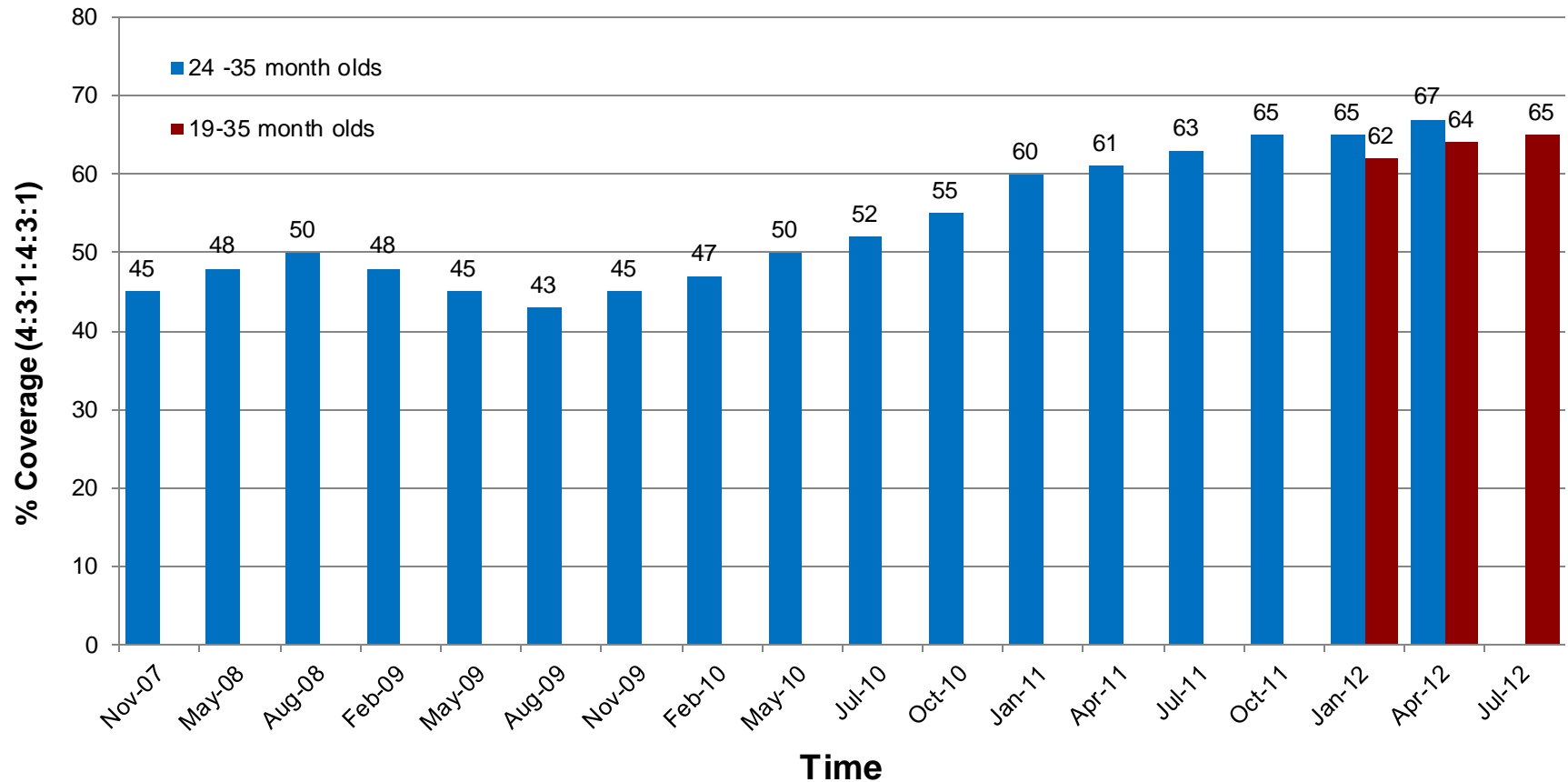
Aggregate Doses Administered Report (DAR): Of All Doses Shipped through VFC, % Reported to the CIR as VFC Eligible*



*Includes doses reported as S-CHIP, 317 (underinsured)

Increase CIR UTD Coverage

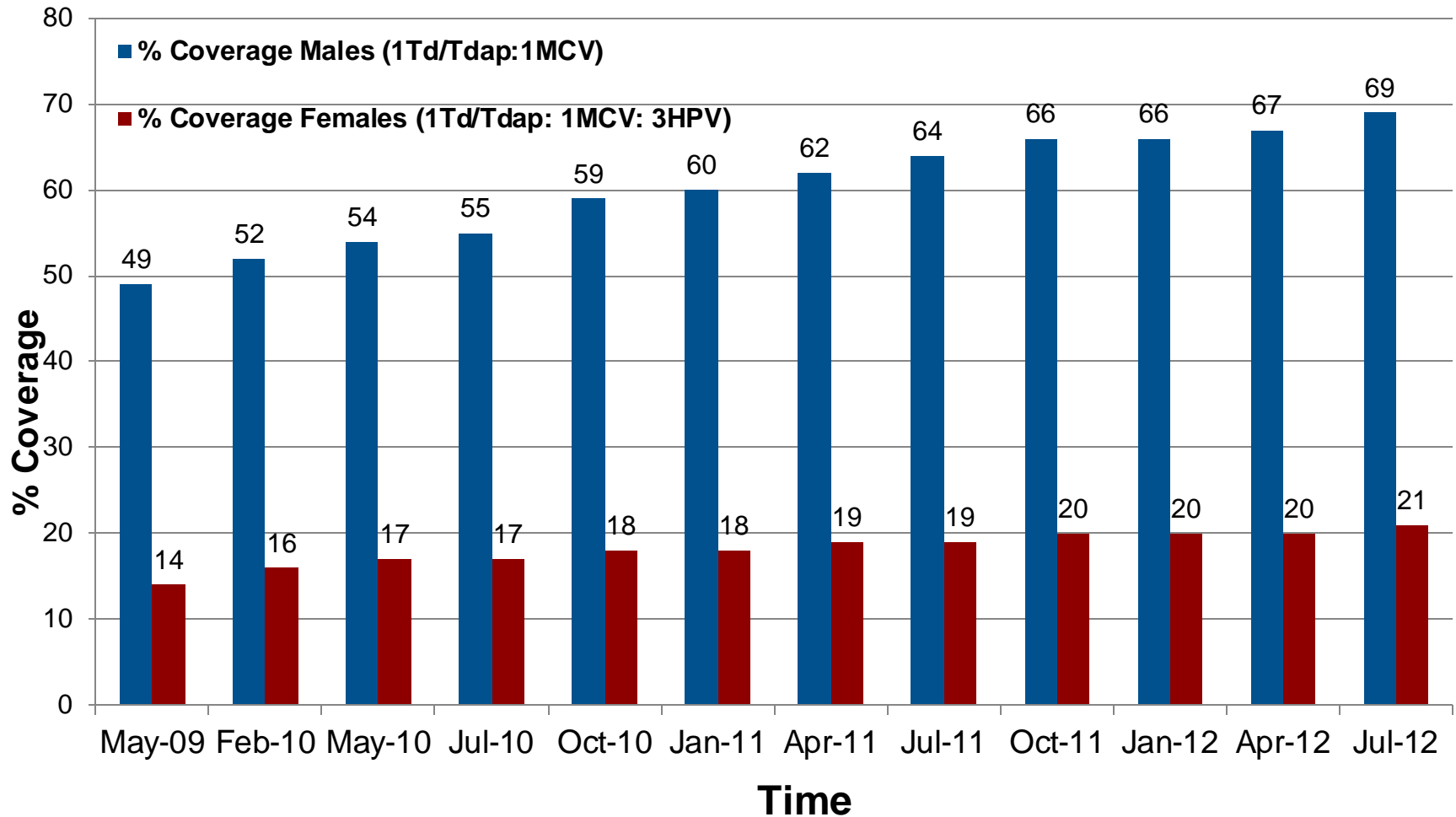
Coverage (4314*31) for 24-35 and 19-35 Month-Olds**



*Hib requirements vary depending on age at first dose, total number of doses received, current age, and product used.

**Denominator: 24-35 and 19-35 month old children who had their last CIR documented dose at \geq 1 year of age reported by a NYC provider

Coverage for 13 Year-Old* Male and Female Adolescents



*Denominator: 13 yr-olds who had their last CIR documented dose at ≥ 9 years of age reported by a NYC provider

Next Steps

- Email reports to providers
 - Large paper mailing burdensome to staff
 - Challenge: not all providers use email
- Posting reports online for providers
- Survey providers
 - How used?
 - Suggestions for improvement?

Contact Information

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Extra Slides

New York City Department of Health and Mental Hygiene-- Bureau of Immunization
CIR Facility Code: XXXX – Provider XXX
VFC PIN: XXXX

1. CIR-Generated UTD % for 2 year-olds

Review Date	#of 2 yo Patients	UTD% ^a	Citywide Percentile Ranking ^b
01/31/12	94	85%	84
10/31/11	81	86%	
07/31/11	75	80%	
04/30/11	73	74%	

2. CIR-Generated UTD% for Influenza

Review Date	#of 6-59 mo Patients	UTD% ^c (o/oile) ^b	#of 5-10 yo Patients	UTD% ^d (%ile) ^b	#of 11-18 yo Patients	UTD% ^e (o/oile) ^b
02/08/12	357	39% (69)	552	26% (76)	855	24% (68)

3. Doses Administered Report (DAR)

Period	VFC Doses Distributed	CIR Reported	DAR% ^f Target >90%
01/1/2011-12/31/11	2240	2242	100%
10/1/2010 – 09/30/11	2620	2187	83%
07/1/2010-06/30/11	2480	2252	91%
04/1/2010-03/31/11	2590	2081	80%

^a Percentage of 19-35 month-olds who received their last CIR-reported 4 DTaP:3 polio:1 MMR: 4 Hib:3 Hep B:1 varicella (4:3:14:3:1) series immunization at this facility, at 361 days of age or older, and who were up-to-date (UTD) on the series based on CIR data on the review date of 01/31/12. For previous review dates, 10/31/11, 07/31/11 and 04/30/11, the age range of children assessed was 24-35 months. *Hib requirements vary, based on age at first dose, total numbers of doses already received, current age and product used.

^b Percentile is a comparison to your peers for UTD coverage. For example, a percentile of 60 means that 60% of NYC pediatric practices have UTD coverage below your practice's coverage and 40% have coverage above your practice's coverage. Percentile is calculated for practices with at least 10 patients in the age range.

^c Percentage of 6-59 month-olds who were UTD for Influenza vaccine. See Frequently Asked Questions for guidance on Influenza UTD criteria at www.nyc.gov/html/doh/downloads/pdf/cir/fag-Quarterly-Immunization-Report.pdf.

^d Percentage of 5-10 year-olds who were UTD for Influenza vaccine. See Frequently Asked Questions for guidance on Influenza UTD criteria at www.nyc.gov/html/doh/downloads/pdf/cir/fag-Quarterly-Immunization-Report.pdf.

^e Percentage of 11-18 year-olds who were UTD for Influenza vaccine. See Frequently Asked Questions for guidance on Influenza UTD criteria at www.nyc.gov/html/doh/downloads/pdf/cir/fag-Quarterly-Immunization-Report.pdf.

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Please review the match between the CIR facility code and the VFC PIN number and report any errors to the CIR at 347-396-2400.

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Doses Administered Report
for Current Quarter

Doses Administered Report for Current Quarter			VFC Doses Distrib	CIR Reported All Vaccines						
CIR Fac_Code	VFC PIN	Name	Jan 11 - Dec 11 All Vaccines	VFC Not Eligible	VFC Unknown	VFC Eligible	CHPlusB Eligible	DAR % ^a VFC and CHPlusB Eligible		VFC and CHPlusB over Distr
0000		XXX Health Center – School-Based Clinics								
0001	xxxxx	XXX Health Ctr – XXX High School	435	4	3	139	0	139		32%
0002	xxxxx	XXX Health Ctr - P.S. XXX	190	0	33	74	0	74		39%
0003	xxxxx	XXX Health Ctr - P.S. XX	170	2	100	215	0	215		126%
0004	xxxxx	XXX Health Ctr - P.S. XX	130	12	8	98	0	98		75%
0005	xxxxx	XXX Health Ctr - MS XXX	540	2	72	260	0	260		48%
TOTAL		XXX Health Center – School-Based Clinics	1,465	20	216	786	0	786		54%

^a This percentage is calculated by dividing the total number of VFC and CHPlusB doses reported (numerator) by the total number of VFC and CHPlusB doses received (denominator). Influenza doses are not included because the vaccine is seasonal. If the DAR is not at least 90%, the facility is subject to reduced vaccine shipments. As of January 1, 2010, only doses reported as administered to a child eligible for VFC or CHPlusB are included in the DAR numerator.

Please review the match between the CIR facility code and the VFC PIN number and report any errors to the CIR at 347-396-2400.

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UTD Report for Current Quarter

CIR Code	VFC PIN	Name	1 CIR- Generated		2 CIR- Generated Influenza UTD %							
			19-35 mo UTD %		Review Date: 02/08/12							
			Review Date: 01/31/12		6-59 month-olds		5-10 year-olds		11-18 year-olds			
			# of patients	UTD % ^a (%ile) ^b	# of patients	UTD % ^c (%ile) ^b	# of patients	UTD % ^d (%ile) ^b	# of patients	UTD % ^e (%ile) ^b	# of patients	UTD % ^e (%ile) ^b
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TOTAL	XXX VFC Provider Health Center		1,404	80%	4,625	46%	5,757	32%	6,553	30%		

a Percentage of 19-35 month-olds who received their last CIR-reported 4 DTaP: 3 polio: 1 MMR: 4 Hib*: 3 Hep B: 1 varicella (4:3:1:4:3:1) series immunization at this facility, at 361 days of age or older, and who were up-to-date (UTD) on the series based on CIR data on the review date. *Hib requirements vary, based on age at first dose, total number of doses already received, current age, and product used.

b Percentile is a comparison to your peers for UTD coverage. For example, a percentile of 60 means that 60% of NYC pediatric practices have UTD coverage below your practice's coverage and 40% have coverage above your practice's coverage. Percentile is calculated for practices with at least 10 patients in the age range.

c Percentage of 6-59 month-olds who were UTD for influenza vaccine. See Frequently Asked Questions for guidance on Influenza UTD criteria at www.nyc.gov/html/doh/downloads/pdf/cir/faq-Quarterly-Immunization-Report.pdf.

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e Percentage of 11-18 year-olds who were UTD for influenza vaccine. See Frequently Asked Questions for guidance on Influenza UTD criteria at www.nyc.gov/html/doh/downloads/pdf/cir/faq-Quarterly-Immunization-Report.pdf.

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February 17, 2012

XXX Health Center

Doses Administered Report
Historical

	VFC Doses Distrib	CIR Reported	DAR % ^a
Jan 11 - Dec 11	28,950	29,204	101%
Oct 10 - Sep 11	28,485	27,863	98%
Jul 10 - Jun 11	28,025	25,333	90%
Apr 10 - Mar 11	26,855	23,795	89%

CIR - Generated UTD % for 2 year-olds
Historical

CIR Fac_Code	VFC PIN	Name	Review Date: 04/30/11		Review Date: 07/31/11		Review Date: 10/31/11		Review Date: 01/31/12	
			# of patients	UTD % ^b	# of patients	UTD % ^b	# of patients	UTD % ^b	# of patients	UTD % ^c
010	0000	XXX Health Center	67	70%	69	68%	60	53%	93	57%
020	0000	xxx Main Clinic	670	81%	666	81%	680	83%	897	81%
030	0000	xxx Bella Vista Clinic	81	65%	80	70%	84	77%	120	88%
040	0000	xxx Family Health Center	137	77%	171	79%	183	81%	294	82%
xxx		XXX Health Center	955	78%	986	79%	1,007	81%	1,404	80%

a This percentage is calculated by dividing the total number of VFC and CHPlusB doses reported (numerator) by the total number of VFC and CHPlusB doses received (denominator). Influenza doses are not included because the vaccine is seasonal. If the DAR is not at least 90%, the facility is subject to reduced VFC vaccine shipments.

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