



# Clinical Reporting System (CRS) Childhood Immunizations Measures

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# CRS Government Performance and Results Act (GPRA) Measure

- User Population patients ages 19–35 months active in IMM with the 4:3:1:3:3:1 combination, contraindications, and evidence of disease
  - Beginning in 2010, only Not Medically Indicated (NMI) refusals are counted toward the GPRA rate.
    - The 2009 rate reported by CRS was 80% (reported for GPRA). Rate did not include varicella (2009 GPRA was 4:3:1:3:3) and included refusals.



# CRS Denominators

- Active Clinical patients ages 19–35 months as of the *end* of the Report Period (7–23 months at beginning of the Report Period)
  - Active Clinical is defined as:
    - Must be Indian/Alaska Native, based on Beneficiary classification 01.
    - Must reside in a community specified in the site's GPRA community taxonomy.
    - Must be alive on last day of Report Period.
    - Must have *two visits to defined medical clinics in the past 3 years*. One of those visits must be any of the following: 01 General, 06 Diabetic, 10 GYN, 12 Immunization, 13 Internal Med, 20 Pediatrics, 24 Well Child, 28 Family Practice, 57 EPSDT, 70 Women's Health, 80 Urgent, 89 Evening. Second visit may be to larger list of clinics (see CRS User Manual).

# CRS Denominators (Continued)

- User Population patients ages 19–35 months as of the *end* of the Report Period
  - User Population defined as
    - Must be Indian/Alaska Native, based on Beneficiary classification 01
    - Must reside in a community specified in the site's GPRA community taxonomy
    - Must be alive on last day of Report Period
    - Must have *one visit to any clinic in the past three years*
  - Only included in the Selected Measures (Local) Reports



# CRS Denominators (Continued)

- GPRA: User Population patients ages 19–35 months as of the *end* of the Report Period who are active in the Immunization Package (IMM)
  - Must meet the User Population definition (see previous slide)
  - Must be active in IMM as of end of the Report Period, which is checked each time the report is run. Example:
    - Report Period: July 1, 2009–June 30, 2010
    - Immunization Package Status: Inactive
    - Inactive Date: May 1, 2010
    - Patient is not included in this denominator

# CRS Denominators (Continued)

- GPRRA Denominator (Continued)
  - Since there is no way to determine when a patient became active in IMM, data is not reported for the Previous Year or Baseline Years for this denominator.
  - Reporting facility must be using the RPMS IMM for this denominator; otherwise, will have zero patients in the denominator.



# CRS Numerators

- Most CRS numerators include patients with the vaccine, contraindication, evidence of disease, and/or NMI-only refusal
  - Except for the Immunization Program Numerators, NMI refusals, evidence of disease, and contraindications for individual immunizations will also count toward meeting the definition, as defined below. Refusals will count toward meeting the definition for refusal numerators only. NOTE: NMI refusals are not counted as refusals; rather, they are counted as contraindications.
  - Each immunization must be refused and documented separately.
    - For example, if a patient refused Rubella only, there must be an immunization, contraindication, or separate refusal for the Measles and Mumps immunizations.
  - For immunizations where required number of doses is  $>1$  (e.g. 3 Hepatitis B), only one refusal is necessary to be counted in the numerator.
    - For example, if there is a single refusal for Hepatitis B, the patient will be included in the numerator.



# CRS Numerators (Continued)

- Most CRS numerators include patients with the vaccine, contraindication, evidence of disease, and/or NMI only refusal (continued)
  - Contraindications include:
    - IMM contraindications
    - NMI refusals entered into Patient Care Component (PCC)
    - Diagnosis codes for specific conditions (e.g. HIV)
    - Where required number of doses is  $>1$ , only 1 contraindication is necessary to be counted in the numerator
  - Evidence of disease will be checked for at any time in the child's life (prior to the end of the Report Period)



# CRS Numerators (Continued)

- Most CRS numerators include two subnumerators:
  - Patients with (1) evidence of the disease, (2) a contraindication, or (3) a documented NMI refusal
  - Patients with documented REF refusal in PCC or Parent or Patient refusal in the IZ program



# CRS Numerators (Continued)

Childhood Immunizations Numerator	National GPRA Report?	Selected Measures (Local) Report?
<b>GPRA: 4:3:1:3:3:1</b>	Y	Y
4 DTaP	Y	Y
3 Polio	Y	Y
1 MMR	Y	Y
3 Hib	Y	Y
3 Hepatitis B	Y	Y
1 Varicella	Y	Y
4 Pneumococcal	N	Y

# CRS Numerators (Continued)

Numerator	National GPRA Report?	Selected Measures (Local) Report?
With All Immunizations (4 DTaP, 3 Polio, 1 MMR, 3 Hib, 3 Hepatitis B, 1 Varicella, and 4 Pneumococcal)	N	Y
Immunization Program Numerator: With all immunizations <i>not</i> including evidence of disease, contraindications, or refusals	N	Y
Immunization Program Numerator: 4:3:1:3:3:1 <i>not</i> including evidence of disease, contraindications, or refusals	N	Y

# CRS Logic

- Vaccines must be at least 10 days apart. Vaccines documented on dates within 10 days of each other are considered as the same immunization.



# CRS Logic (Continued)

- CRS dosage logic

- 4 doses of DTaP: (1) 4 DTaP/DTP/Tdap; (2) 1 DTaP/DTP/Tdap and 3 DT/td; (3) 1 DTaP/DTP/Tdap and 3 each of Diphtheria and Tetanus; (4) 4 DT and 4 Acellular Pertussis; (5) 4 Td and 4 Acellular Pertussis; or (6) 4 each of Diphtheria, Tetanus, and Acellular Pertussis
- 3 doses of Polio: (1) 3 OPV, (2) 3 IPV, or (3) combination of oral poliovirus vaccine (OPV) and inactivated poliovirus vaccine (IPV) totaling 3 doses
- 1 dose of MMR: (1) MMR; (2) 1 M/R and 1 Mumps; (3) 1 R/M and 1 Measles; or (4) 1 each of Measles, Mumps, and Rubella
- 3 doses of Hep B OR 2 doses IF documented with CPT 90743
- 3 doses of HIB
- 1 dose of Varicella
- 4 doses of Pneumococcal

# CRS Reports and Patient Lists

- National GPRA Report Patient Lists
  - Active Clinical with 4:3:1:3:3
  - Active Clinical without 4:3:1:3:3
  - Active Immunization Package with 4:3:1:3:3
  - Active Immunization Package without 4:3:1:3:3
  - Active Immunization Package with 4:3:1:3:3:1
  - Active Immunization Package without 4:3:1:3:3:1
  - Active Immunization Package with 4:3:1:3:3:1:4 (GPRA Dev)
  - Active Immunization Package without 4:3:1:3:3:4 (GPRA Dev)
  - Active Clinical Pts not in Immunization Package denominator
- Selected Measures (Local) Report Patient List
  - Patients in any of the denominators with received vaccines listed
- All patient lists show the vaccines the patients received if they had the required number of doses for the vaccine







# Sample GPRA Patient List

830	Childhood Immunizations						
831							
832	List of Active Immunization Package patients 19-35 months who received						
833	the 4:3:1:3:3:1 combination (4 DTaP, 3 Polio, 1 MMR, 3 HiB, 3 Hep B,						
834	and 1 Varicella).						
835							
836	NOTE: Because age is calculated at the beginning of the Report Period,						
837	the patient's age on the list will be between 7-23 months.						
838							
839	UP=User Pop; AC=Active Clinical; AD=Active Diabetic; AAD=Active Adult Diabetic						
840	PREG=Pregnant Female; IMM=Active IMM Pkg Pt; IHD=Active Ischemic Heart Disease						
841	CHD=Active Coronary Heart Disease						
842	PATIENT NAME	HRN	COMMUNITY	SEX	AGE	DENOMINATOR	NUMERATOR
843	-----						
844	PATIENT,GPRA,FIRST	000001	SAMPLE #1	F	1	UP;AC;IMM	4 Dtap/Dtp;3 Polio;MMR;3 HIB;3 HEP;vari
845	PATIENT,GPRA,SECOND	000002	SAMPLE #1	M	0	UP;AC;IMM	4 Dtap/Dtp;3 Polio;MMR;3 HIB;3 HEP;vari;ref Pneumo
846	PATIENT,GPRA,THIRD	000003	SAMPLE #2	M	1	UP;AC;IMM	4 Dtap/Dtp;3 Polio;MMR;3 HIB;3 HEP;vari;ref Pneumo
847	PATIENT,GPRAFOURTH	000004	SAMPLE #3	F	1	UP;AC;IMM	4 Dtap/Dtp;3 Polio;MMR;3 HIB;3 HEP;vari;4 PNEUMO
848	PATIENT,GPRAFIFTH	000005	SAMPLE #4	M	0	UP;AC;IMM	4 Dtap/Dtp;3 Polio;MMR;3 HIB;3 HEP;vari;4 PNEUMO



# Sample Selected Measures (Local) Patient List

896	Source:						
897	CDC; HP 2010 14-22;14-24; HEDIS						
898	UP=User Pop; AC=Active Clinical; AD=Active Diabetic; AAD=Active Adult Diabetic						
899	PREG=Pregnant Female; IMM=Active IMM Pkg Pt; IHD=Active Ischemic Heart Disease						
900	CHD=Active Coronary Heart Disease						
901							
902	Childhood Immunizations: List of patients 19-35 months with IZ, if any. If a						
903	patient did not have all doses in a multiple dose vaccine, the IZ will not be						
904	listed. For example, if a patient only had 2 DTaP, no IZ will be listed for						
905	DTaP. NOTE: Because age is calculated at the beginning of the Report Period,						
906	the patient's age on the list will be between 7-23 months.						
907							
908	PATIENT NAME	HRN	COMMUNITY	SEX	AGE	DENOMINATOR	NUMERATOR
909	-----						
910	PATIENT,FIRST	000001	SAMPLE #1	F	0	UP;AC;IMM	4 Dtap/Dtp;3 Polio;MMR;3 HIB;3 HEP;vari
911	PATIENT,SECOND	000002	SAMPLE #1	F	1	UP;AC	
912	PATIENT,THIRD	000003	SAMPLE #1	F	1	UP	;ref hib;ref hep
913	PATIENT,FOURTH	000004	SAMPLE #1	M	0	UP;AC;IMM	;vari
914	PATIENT,FIFTH	000005	SAMPLE #1	M	0	UP;AC;IMM	
915	PATIENT,SIXTH	000006	SAMPLE #1	M	0	UP;AC;IMM	4 Dtap/Dtp;3 Polio;MMR;3 HIB;3 HEP;vari
916	PATIENT,SEVENTH	000007	SAMPLE #1	M	1	UP	
917	PATIENT,EIGHTH	000008	SAMPLE #1	M	1	UP;AC;IMM	
918	PATIENT,NINTH	000009	SAMPLE #1	M	1	UP;AC;IMM	4 Dtap/Dtp;3 Polio;MMR;3 HIB;3 HEP;vari;ref Pneumo
919	PATIENT,TENTH	000010	SAMPLE #2	F	0	UP;AC	
920	PATIENT,ELEVENTH	000011	SAMPLE #3	F	1	UP;AC;IMM	;3 Polio;MMR;3 HEP;vari
921	PATIENT,TWELFTH	000012	SAMPLE #3	F	1	UP;AC	
922	PATIENT,THIRTEENTH	000013	SAMPLE #3	M	0	UP;AC;IMM	ref Dtap or DT
923	PATIENT,FOURTEENTH	000014	SAMPLE #3	M	0	UP;AC;IMM	
924	PATIENT,FIFTEENTH	000015	SAMPLE #4	F	0	UP;AC;IMM	4 Dtap/Dtp;3 Polio;MMR;3 HIB;3 HEP;vari

# Potential Reasons for Differences Between CRS and IMM Reports

- CRS requires patient's age to be 7–23 months at a fixed date (beginning of the Report Period), which makes patient 19–35 months at end of Report Period. IMM uses a different cohort of children for each quarter (i.e. as of *today*, how many are between 19–35 months old?).
- GPRA community taxonomy: was the same used for both reports?
- Patient population: were American Indian/Alaska Native (AI/AN) patients only used for both reports?
- Are there inactive patients in IMM that should be changed to active?
- IMM does not require 10 days (or any days) apart for series of vaccines, whereas CRS does.



# CRS Adolescent Immunizations Measures

- Included in the Selected Measures (Local) and Other National Measures (ONM) Reports
  - Denominators:
    - Active Clinical patients age 13 (Selected Measures)
    - Female Active Clinical patients age 13 (Selected Measures)
    - Active Clinical patients age 13–17 (Selected Measures and ONM)
    - Female Active Clinical patients age 13–17 (Selected Measures and ONM)



# CRS Adolescent Immunizations Measures (Continued)

- Included in the Selected Measures (Local) and ONM Reports (Continued)
  - Numerators
    - 2 MMR, 3 Hepatitis B, 1 Varicella (Selected Measures)
    - 1 Td/Tdap, 3 Hepatitis B, 2 MMR, 1 Varicella (Selected Measures and ONM)
    - 1 Td/Tdap (Selected Measures and ONM)
    - 2 MMR (Selected Measures)
    - 3 Hepatitis B (Selected Measures)
    - 1 Varicella (Selected Measures)
    - 1 Meningococcal (Selected Measures and ONM)
    - 3 HPV ever (Selected Measures and ONM)



# CRS Adolescent Immunizations Measures (Continued)

- Most CRS numerators include two subnumerators
  - Patients with (1) evidence of the disease, (2) a contraindication, or (3) a documented NMI refusal
  - Patients with documented REF refusal in PCC or Parent or Patient refusal in the IZ program



# CRS Adolescent Immunizations Measures (Continued)

- CRS dosage logic
  - 1 dose of Td or Tdap
  - 2 doses of MMR: (1) 2 MMRs; (2) 2 M/R and 2 Mumps; (3) 2 R/M and 2 Measles; or (4) 2 each of Measles, Mumps, and Rubella
  - 3 doses of Hep B or 2 doses IF documented with CPT 90743
  - 1 dose of Varicella
  - 1 dose of Meningococcal
  - 3 doses of HPV (Female Active Clinical age 13 and Female Active Clinical ages 13–17 denominators only)
- Uses same logic as Childhood Immunizations measures





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