Childhood Immunization Completion Rates

A biennial report to the Arizona Governor, President of the Senate and Speaker of the House evaluating the compliance rates of childhood immunizations of children by two years of age enrolled in AHCCCS, Arizona's Medicaid program.

Acute Care Contractors and the Division of Developmental Disabilities

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Prepared by the Division of Health Care Management

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AHCCCS
Arizona Health Care Cost Containment System

"Our first care is your health care."

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CHILDHOOD IMMUNIZATION STATUS AT 24 MONTHS OF AGE

A Biennial Report to the Governor, President of the Senate, and Speaker of the House for the Measurement Period Ending September 30, 2015

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EXECUTIVE SUMMARY

"Diseases that used to be common in this country and around the world, including polio, measles, diphtheria, pertussis (whooping cough), rubella (German measles), mumps, tetanus, rotavirus and *Haemophilus influenzae* type b (Hib) can now be prevented by vaccination"[1]. Children are born with an immune system made up of cells, tissues and organs designed to defend the body against infectious organisms. When organisms are introduced into the body, several cells work together to detect, and respond to them with antibodies [2]. Once produced, antibodies remain in the body so that in the event the body encounters these organisms again they can respond quickly. Immunizations prevent specific diseases by introducing the body to antigens which will in turn protect a person from future attacks by organisms or germs by acting quickly to attack and remove them.

The Department of Health and Human Services established a goal that 90 percent of children 19-35 months of age will be fully vaccinated for nationally recommended vaccines by the year 2020. The most recent rates reported by the National Committee for Quality Assurance (NCQA) indicate that Medicaid overall has not met the 90 percent goal for most vaccines. Nationally, Medicaid has met this goal for the measles, mumps and rubella (MMR) vaccine only.[3] While commercial plans were relatively higher than Medicaid for all vaccinations, they only met the Healthy People goal for approximately half of the vaccinations. It is important to note that this study does not focus on 19-35 months of age but rather birth-24 months of age.

Since 1993, the Arizona Health Care Cost Containment System (AHCCCS) has regularly measured the immunization status of children 24 months of age. This report is presented in accordance to state law (ARS 36-2904), which requires a biennial status of 24-month immunization completion rates for children served by the Arizona Health Care Cost Containment System (AHCCCS). This report evaluates the performance of AHCCCS contracted health plans (Contractors) individually and overall.

One barrier that continues since the previous measurement period is the concern and miseducation by parents regarding complications and risks associated with vaccinating children. Many of these parents are choosing to refuse or delay vaccinating their child. These decisions put not only their child at risk but also those within their communities, especially those who cannot be vaccinated due to illness or other medical reasons; for example those who experience vaccine failure and children too young to be vaccinated. Two national surveys conducted on parents of children under the age of six indicate over 20 percent of parents had reservations regarding the risks of vaccinations[4,5].

Arizona law requires children to receive specific vaccines to attend school with exceptions only for medical, religious or personal belief reasons. The Arizona Department of Health Services evaluates exemption rates and reported an increase in 2014. Childcare and Kindergarten exception rates increased from 3.8 to 4.1 and 3.9 to 4.7 respectively[6].

AHCCCS has established minimum performance standards (MPS) for childhood immunization rates which are used to evaluate Contractor performance. Contractors must meet the MPS for each vaccine and vaccine series; if they perform lower than the MPS they must implement a Corrective Action Plan (CAP) and may be subject to sanctions if they fail to improve their rates. AHCCCS also encourages Contractors to strive to meet the Healthy People 2020 goals once the MPS has been achieved.

Methodology

AHCCCS used the Centers for Medicare and Medicaid Services (CMS) technical specifications developed for the Core Set of Children's Health Care Quality Measures for Medicaid and CHIP (Child Core Set). A random sample of children who turned 24 months of age on or between October 1, 2014 and September 30, 2015 and who were continuously enrolled twelve months prior to the child's second birthday were included in this study.

All data was collected according to applicable privacy and confidentiality laws and safeguards. AHCCCS fist sent the sample to the Arizona State Immunization Information System (ASIIS), an electronic registry maintained by the Arizona Department of Health Services (ADHS). AHCCCS sent a sample of 493 members per contracted health plan to ASIIS, where ASIIS staff searched the registry using the members first and last name and date of birth to identify vaccinations received by AHCCCS members. ADHS then provided all immunizations date in the registry for those members it was able to match to AHCCCS. Members with no records or incomplete records found in the ASIIS registry were sent to their respective contracted health plans. The Contractors conducted a hybrid audit for those members, meaning they gathered medical records and/or claims to confirm a member's receipt of any missing vaccinations.

Overall Results and Analysis

Aggregate performance rates for individual and combination immunizations are shown in the table below. The final sample consisted of 4,663 children enrolled with 11 health plans whose second birthdays occurred during Contract Year Ending (CYE) 2015.

Since the last report additional measures have been included, they cannot be compared to the previous measurement period. The new measures include:

- Hep A: Hepatitis A
- RV: Rotavirus
- Flu: Influenza

Aggregate Individual Immunization Completion Rates by 24 months of age
Measurement period ending September 30, 2015

	DTaP (4 doses)	IPV (3 doses)	MMR (1 dose)	HiB (3 doses)	Hep B (3 doses)	VZV (1 dose)	PCV (4 doses)	Hep A* (1 dose)	RV* (2-3 doses)	Flu* (2 doses)
AHCCCS MPS (%)	85%	91%	91%	90%	90%	88%	82%	40%	60%	45%
Health People 2020 Goal	90%	90%	90%	90%	85%	90%	90%	85%	80%	80%**
Current AHCCCS Rate (%)	81.7	89.6	**92.4**	88.5	88.6	**92.0**	78.8	**92.0**	**76.4**	45.0
Previous AHCCCS Rate (%)	79.5	91.4	91.3	91.5	87.9	90.5	79.9	*	*	*

*This immunization was not included in the previous measurement period
Rates in bold met or exceeded the AHCCCS MPS
** This goal was set in 2011 and has since been archived by Healthy People

Aggregate Immunization Combination Completion Rates by 24 months of age
Measurement period ending September 30, 2015

	Combo 2 (DTap, IPV, MMR, HIB, Hep B, VZV)	Combo 3 (DTap, IPV, MMR, HIB, Hep B, VZV, PCV)
AHCCCS MPS (%)	74%	68%
Health People 2020 Goal	80%	80%
Current AHCCCS Rate (%)	76.0	71.7
Previous AHCCCS Rate (%)	72.9	69.1

AHCCCS rates for all immunizations, except influenza, met or exceeded the most recent national means for Medicaid health plans reported by the National Committee for Quality Assurance (NCQA) within the State of Health Care Quality 2015 report. NCQA produces this report annually and it focuses on quality issues this country faces and assists in driving improvement in the delivery of evidence-based medicine and care. The report trends performance overtime, tracks variations in care and recommends quality improvement. When compared on a national Medicaid level, Arizona has high compliance rates regarding childhood immunization.

Conclusion

AHCCCS will provide the data and rates for this measurement period to Contractors for additional analysis so they may identify barriers and develop interventions to improve their performance. Contractors continue comprehensive outreach efforts to encourage parents to complete scheduled immunizations for their children and to providers to schedule appointments necessary to administer vaccinations. AHCCCS and its Contractors continue to promote completion and timely immunizations for all populations served with a specific focus on childhood and adolescent immunizations. AHCCCS, AHCCCS Contractors and relevant stakeholders work collaboratively to develop interventions and education initiatives between measurement periods, which include monitoring local, state and national trends that could potentially impact immunization rates.

AHCCCS will continue to work with and monitor Contractors, especially those with lower compliance, to assist them in making progress toward reaching state and national goals.

OVERVIEW

Background

Since 1993, AHCCCS has measured the immunization rates of children by two years of age. Arizona Revised Statute 36-2904 requires that AHCCCS submit a report to the Governor and Legislature that represents a statistically valid sample evaluating the number of AHCCCS enrolled children who received immunizations recommended by the Centers for Disease Control and Prevention (CDC) by age two. This biannual report evaluates childhood immunization compliance for each AHCCCS Acute-care and DDD contracted health plans (Contractor).

This report includes 2015 measurement results of nine individual vaccines, two combination vaccines and the influenza vaccine, which protect against fourteen different diseases and viruses: diphtheria, tetanus and acellular (DTaP); inactivated poliovirus (IPV); measles, mumps and rubella (MMR); haemophilus influenza type b (Hib); hepatitis B (Hep B); varicella zoster (VZV); pneumoccal conjugate (PCV); hepatitis A (Hep A); rotavirus (RV) and influenza. The recommended vaccination schedule can be found in Appendix B.

Vaccination is important not only to the individual but also to those living in their communities. "When sufficiently high proportion of a population is vaccinated against communicable diseases, the entire population can obtain protection"[7]. Within the United States childhood diseases have decreased by 95 percent due to immunizations since the end of the 20th century[8]. Monitoring of immunization completion rates is critical to identifying under-vaccinated populations and increasing coverage levels in order to prevent outbreaks of disease.

AHCCCS established Minimum Performance Standards (MPS) for childhood immunization rates, both individual and combinations, which are used in evaluating Contractor performance. If a Contractor does not meet the MPS set for a specific immunization or combination, they must develop and implement a Corrective Action Plan (CAP) and may be subject to financial sanctions. It is important to note that a Contractor may not meet the MPS for and individual immunization but may meet it for a particular combination as the MPS set for combinations are lower than those for individual immunizations.

Changes

- Two Contractors are no longer contracted with AHCCCS as an acute-care health plan. Also for this reporting period one Contractor entered into contract with AHCCCS as an acute-care health plan. Additionally, members with a qualifying diagnosis for the Children's Rehabilitative Services program (CRS) were fully integrated as of 10/01/2014, meaning that CRS is now responsible for the comprehensive health care needs of their members where they would not have been included in previous reports.

- Since the last report additional measures have been included, therefore they cannot be compared to the previous measurement period.
    - Hep A: Hepatitis A
    - RV: Rotavirus
    - Flu: Influenza

Healthy People

Based on the CDC's recommendations, the U.S. Department of Health and Human Services (DHHS) established a goal that, by 2020, 90 percent of children 19 to 35 months of age will be fully vaccinated for universally recommended vaccines. This goal applies to completion of the appropriate doses of individual vaccines. A second goal is that 80 percent of children receive the full series of seven vaccines (DTap, IPV, MMR, Hib, HBV, VZV and PCV) by age 3. Once Contractors reach the AHCCCS MPS they are encouraged to strive to reach the Healthy People goals, however they may set their own goals which must be higher than the AHCCCS MPS.

AHCCCS Performance Measure Standards for Childhood Immunizations
Measurement period ending September 30, 2015

Immunization	AHCCCS Minimum Performance Standard (MPS)	Healthy People 2020 Objectives
DTaP – 4 doses	85%	90%
IPV – 3 doses	91%	90%
MMR – 1 dose	91%	90%
HiB – 3 doses	90%	90%
Hep B – 3 doses	90%	90%
VZV – 1 dose	88%	90%
PCV – 4 doses	82%	90%
Hep A – 1 dose	40%	90%
RV – 2-3 doses	60%	90%
Influenza – 2 doses	45%	90%
4:3:1:2:3:1 Series	74%	80%
4:3:1:2:3:1:4 Series	68%	80%

PURPOSE OF THE MEASUREMENT

This study was conducted to determine the immunization rates of AHCCCS members who turned age two by September 30, 2015, as required by state law (*ARS 36-2904*) and to evaluate Contractor performance. Aggregate rates are reported to determine the compliance rates of children enrolled in AHCCCS statewide. Individual Contractor rates are reported separately to evaluate the performance of each Contractor. Results of the current measurement year stratified by race/ethnicity and county are also included to determine if any disparities exist and assist in identifying opportunities for improvement.

QUALITY INDICATORS

This immunization study utilized the Centers for Medicare and Medicaid Services (CMS) technical specifications and resource manual for federal fiscal year 2015 reporting specific to the *Core Set of Children's Health Care Quality Measures for Medicaid and CHIP (Child Core Set).* The Children's Health Insurance Program Reauthorization Act of 2009 (CHIPRA) included provisions to strengthen the quality of care provided to and health outcomes of children in Medicaid and CHIP. CHIPRA required HHS to identify and publish a core measure set of children's health care quality measures for voluntary use by State Medicaid and CHIP programs[9]. All quality indicators are based on identical denominator criteria. These indicators are listed below with the numerator criteria.

- DTaP – the total number of children in the denominator who received at least four DTaP (diphtheria, tetanus and acellular pertussis) vaccinations with different dates of service on or before the child's second birthday.

- IPV – the total number of children in the denominator who received at least three IPV (inactivated poliovirus) vaccinations with different dates of service on or before the child's second birthday.

- MMR – the total number of children in the denominator who received any of the following with a date of service on or before the child's second birthday

    - at least one MMR (measles, mumps and rubella) vaccination
    - at least one measles and rubella vaccination and at least one mumps vaccination
    - at least one measles vaccination or history of the illness and at least one mumps vaccination or history of the illness and at least one rubella vaccination or history of the illness on the same date of service or on different dates of service

- HiB – the total number of children in the denominator who received at least three HiB (haemophilus influenza type b) vaccinations with different dates of service on or before the child's second birthday

- Hep B – the total number of children in the denominator who received either of the following with a date of service on or before the child's second birthday

    - At least three hepatitis B vaccinations with different dates of service
    - History of hepatitis illness

- VZV – the total number of children in the denominator who received either of the following
    - At least one VZV (varicella) vaccination with a date of service on or before the child's second birthday
    - History of varicella zoster illness

- PCV – the total number of children in the denominator who received at least four PCV (pneumococcal conjugate) vaccinations with dates of service on or before the child's second birthday

- Hep A – the total number of children in the denominator who received either of the following
    - At least one hepatitis A vaccination with a date of service on or before the child's second birthday
    - History of hepatitis A illness

- RV – the total number of children in the denominator who received any of the following on or before the child's second birthday
    - At least two doses of the two-dose rotavirus vaccine on different dates of service
    - At least three doses of the three-dose rotavirus vaccine on different dates of service
    - At least one dose of the two-dose rotavirus vaccine and at least two doses of the three-dose rotavirus vaccine, all on different dates of service

- Influenza – the total number of children in the denominator who received at least two influenza vaccinations, with different dates of service, on or before the child's second birthday

- Combination #2 – the total number of children in the denominator who received four DTaP/DT vaccinations, three IPV vaccinations, one MMR vaccination, three Hib vaccinations, three HBV vaccinations and one VZV vaccination on or before their second birthdays

- Combination #3 – the total number of children in the denominator who received four DTaP/DT vaccinations, three IPV vaccinations, one MMR vaccination, three Hib vaccinations, three HBV vaccinations, one VZV vaccination and four PCV vaccinations on or before their second birthdays

METHODOLOGY

The measurement included children who turned two years of age during the contract year ending (CYE) September 30, 2015, who were continuously enrolled with AHCCCS Contractors and were eligible under Medicaid (Title XIX of the Social Security Act).

Eligible population

- Children who turn 2 years old during the measurement year
- Children who were continuously enrolled 12 months prior to the child's second birthday
- Children with no more than one gap in enrollment of up to 45 days during the 12 months prior to the child's second birthday.
- Children who were enrolled on their second birthday

Study Sample

AHCCCS pulled a random sample of 411 eligible members plus a 20 percent oversample for a total of 493 members per Contractor. Two Contractors did not have a large enough population to pull a sample from; therefore their entire eligible population was used for this measure. The total sample for all contractors was 4796 members.

Data Collection

AHCCCS identified all eligible children enrolled with AHCCCS. AHCCCS then collaborated with the Arizona Department of Health Services (ADHS) to obtain data from the Arizona State Immunization Information System (ASIIS) which is an electronic registry maintained by ADHS. AHCCCS provided ASIIS with an electronic file containing all members eligible for this study. The ASIIS registry was searched by first and last name and date of birth within the AHCCS file, the registry was further searched to match against other factors such as child or mothers social security number this was done only in the event that more than one member was found with the same name and date of birth. ADHS provided AHCCCS with all immunizations in the registry for those members included in the file if an immunization exists within the registry.

The data was then merged with any vaccination data for administration of vaccines collected from the AHCCCS encounter system through the AHCCCS Data Warehouse. AHCCCS then pulled a random sample of 493 members for each Contractor and provided the respective samples to Contractors with the vaccination data that had been collected. Contractor personnel were instructed on the purpose of the study, the methodology, data collection methods and internal quality control/validation procedures to ensure that data was collected and reported to AHCCCs in a consistent and reliable manner.

Contractor staff collected additional data from medical records and/or any claims (encounter) not yet received or processed by AHCCCS. Dates collected were entered into an excel file and all relevant documentation which provides proof that a vaccine was administered was submitted by the Contractors to AHCCCS. AHCCCS reviewed documentations submitted by contractors to validate administration of vaccinations.

Data Analysis

Once data collection was finalized, AHCCCS merged the data from Contractors and performed analysis using COGNOS software in the Data Warehouse. The primary analysis provided results on the percentage of members who were age-appropriately immunized by two years of age for each quality indicator overall, by individual Contractor, by county and by race/ethnicity. Following CMS technical specifications, if the data showed that an individual member received two doses of the same vaccine with dates of service that were within 14 days of each other, the doses were considered a single immunization. This allowed for data from different sources to be combined, while reduce the possibility of counting the same immunization twice due to data entry errors.

See Appendix C of this report for the complete technical specifications

RESULTS

The sample consisted of 4796 children enrolled in AHCCCS across ten Contractors. The sample included 493 members for all but two health plans, both of which had an eligible population too small to sample from; therefore their entire population was used for the study. Compliance rates for the combined health plans along with comparative data are as follows:

Aggregate Individual Immunization Completion Rates by 24 months of age
Measurement period ending September 30, 2015

	DTaP (4 doses)	IPV (3 doses)	MMR (1 dose)	HiB (3 doses)	Hep B (3 doses)	VZV (1 dose)	PCV (4 doses)	Hep A* (1 dose)	RV* (2-3 doses)	Flu* (2 doses)
AHCCCS MPS (%)	85	91	91	90	90	88	82	40	60	45
Health People 2020 Goal (%)	90	90	90	90	85	90	90	85	80	80**
Current AHCCCS Rate (%)	81.7	89.6	**92.4**	88.5	88.6	**92.0**	78.8	**92.0**	**76.4**	45.0
Previous AHCCCS Rate (%)	**79.5**	**91.4**	**91.3**	**91.5**	87.9	**90.5**	79.9	*	*	*

Rates in bold met or exceeded the AHCCCS MPS
*This immunization was not included in the previous measurement period
** This goal was set in 2011 and has since been archived by Healthy People

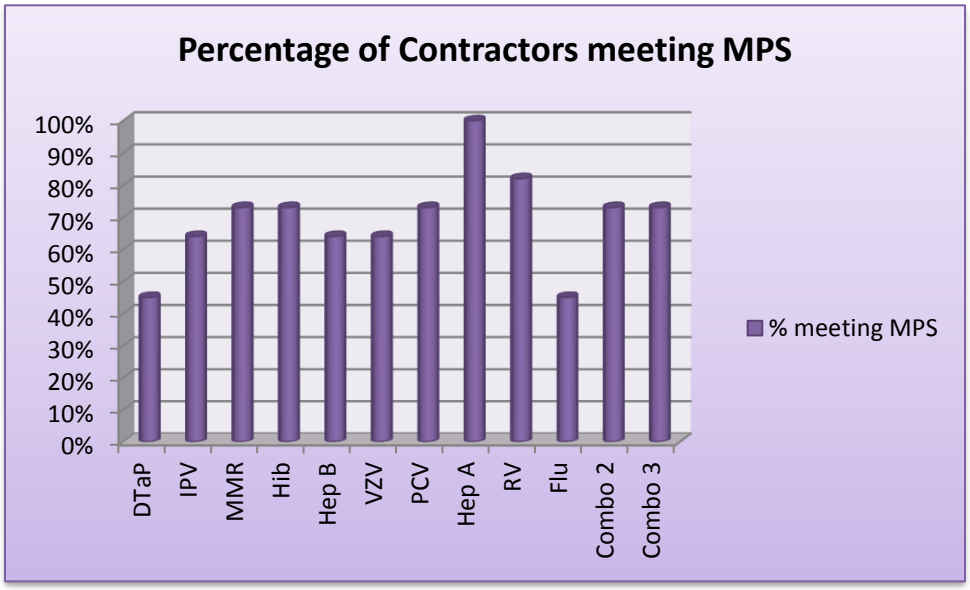
Aggregate Immunization Combination Completion Rates by 24 months of age
Measurement period ending September 30, 2015

	Combo 2 (DTap, IPV, MMR, HIB, Hep B, VZV)	Combo 3 (DTap, IPV, MMR, HIB, Hep B, VZV, PCV)
AHCCCS MPS (%)	74%	68%
Health People 2020 Goal	80%	80%
Current AHCCCS Rate (%)	**76.0**	**71.7**
Previous AHCCCS Rate (%)	**72.9**	**69.1**

Rates in bold met or exceeded the AHCCCS MPS

Statewide 50 percent of the individual immunization rates met the MPS set and both combination immunization series met their MPS. The total number of children receiving DTaP showed a statistically significant increase from the previous measurement period. Both IPV and HiB had significant decreases from the previous measurement period and the remaining immunizations maintained compliance. As previously mentioned, Hepatitis A, Rotavirus and Influenza are new immunizations evaluated this measurement period; therefor comparison could not be completed. The MMR vaccine exceeded the Healthy People goal established and all vaccines, except Influenza, met or exceeded the national Medicaid average for each.

Graph 1:
Percentage of Contractors meeting MPS, by Immunization



Result by Contractor

For the Medicaid population, there are 63 reported rates that allow for calculation of statistical significance when looking at individual immunizations by Contractor. While decreases were experienced in the aggregate for 50 percent of the immunizations it is important to note that only seven individual immunizations rates (11%) showed a statistically significant decrease when analyzed by Contractor. A combination of a statistically significant decrease by one Contractor and several non-significant decreases by other Contractors contributed to a statistically significant decrease for two individual immunizations statewide.

Eight of the eleven Contractors had combination compliance rates that met or exceeded the MPS for these combinations. Compliance rates for five Contractors exceeded the Healthy People goal of 80 percent for combination number two. One Contractor exceeded the goal for combination number 3.

Two Contractors met the goal for a measures evaluated within this study. Refer graph 1 to review the percentage of immunization each Contractor met or exceeded the AHCCCS established MPS.

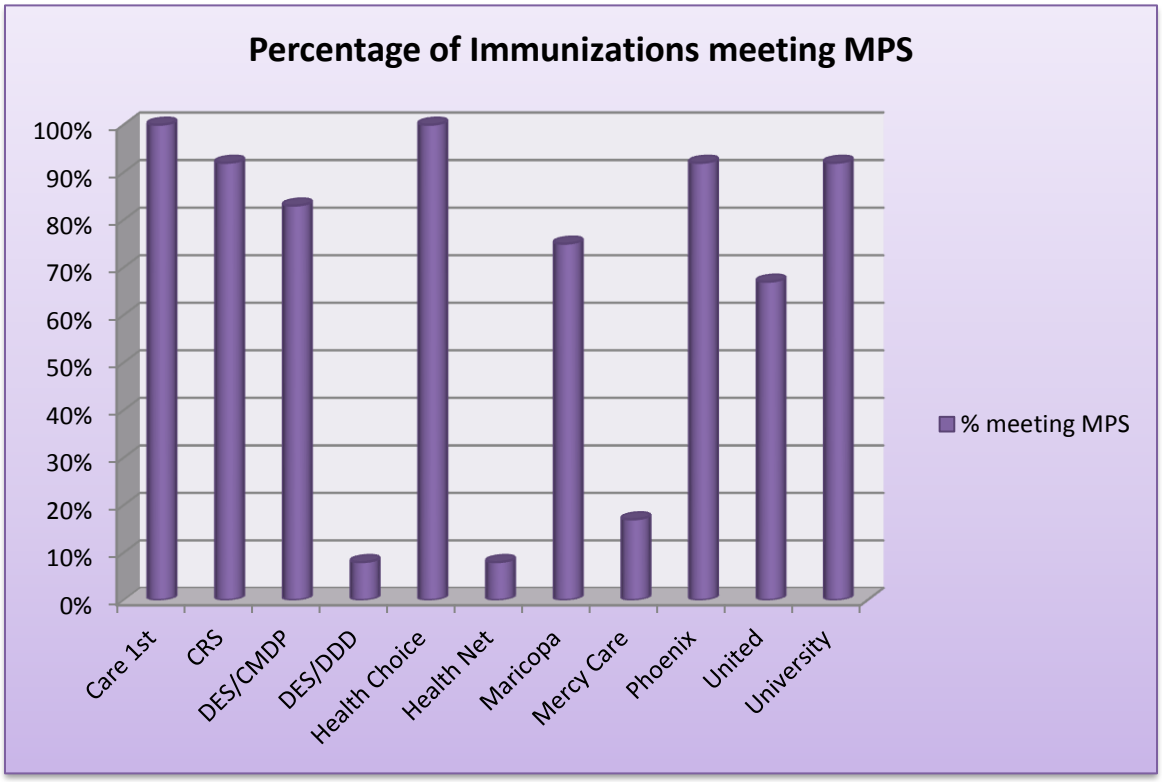
Table 1:
Medicaid Rates for Individual Immunizations, by Health Plan

AHCCCS Contractor	Percent of Immunizations Completed by 24 Months of Age									
	DTaP (4 doses)	IPV (3 doses)	MMR (1 dose)	Hib (3 doses)	Hep B (3 doses)	VZV (1 dose)	PCV (4 doses)	Hep A (1 dose)	RV (2-3 doses)	Flu (2 doses)
Care 1st Arizona	85.8	92.9	93.3	92.5	94.5	93.3	82.6	93.1	83.2	49.1
	88.5	96.8	94.2	96.2	94.2	92.9	87.2	n/a	n/a	n/a
CRS	82.9	92.7	94.9	94.1	92.2	94.3	82.4	93.7	65.3	53.3
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
DES/CMDP	82.4	95.1	98.0	94.5	93.1	97.4	77.7	96.1	70.8	55.8
	85.1	95.5	95.2	94.4	95.2	95.2	85.1	n/a	n/a	n/a
DES/DDD	63.9	72.2	84.2	81.2	66.2	81.2	58.6	86.5	57.1	40.6
	74.2	79.6	80.7	87.1	78.5	82.8	76.3	n/a	n/a	n/a
Health Choice Arizona	90.9	93.7	93.5	94.7	91.1	93.9	88.8	94.7	89.5	52.7
	77.5	88.8	89.7	89.4	84.5	88.7	75.3	n/a	n/a	n/a
Health Net Access	52.0	63.8	80.3	27.1	62.4	79.0	49.3	82.5	59.8	10.5
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Maricopa Health Plan	85.2	91.5	93.7	90.1	89.2	93.7	81.3	93.5	81.9	43.2
	86.6	94.7	96.8	94.3	82.9	95.5	86.9	n/a	n/a	n/a
Mercy Care Plan	76.9	83.2	88.2	85.2	81.3	87.8	72.6	90.9	76.9	35.3
	83.5	93.6	92.6	93.5	93.6	92.0	85.4	n/a	n/a	n/a
Phoenix Health Plan	87.8	92.7	93.7	93.7	91.1	93.5	84.8	93.7	87.6	44.6
	77.2	91.0	90.2	90.8	87.0	89.1	77.6	n/a	n/a	n/a
United Health Care	76.7	89.2	91.3	91.3	90.1	89.9	77.5	87.8	66.3	42.6
	78.9	91.3	91.9	92.1	88.6	91.1	79.6	n/a	n/a	n/a
University Family Care	85.6	92.5	93.3	90.7	93.1	93.1	80.5	90.7	79.3	45.8
	75.3	91.9	90.4	91.2	92.2	90.3	79.2	n/a	n/a	n/a
TOTAL	**81.7**	**89.6**	**92.5**	**88.5**	**88.6**	**92.0**	**78.8**	**92.0**	**76.4**	**45.0**
PREVIOUS TOTAL	79.5	91.4	91.3	91.5	87.9	90.5	79.9	n/a	n/a	n/a

Table 2:
Medicaid Rates for 4:3:1:3:3:1 Combo #2 and 4:3:1:3:3:1:4 Combo #3, by Health Plan

AHCCCS Contractor	Percent of Immunizations Completed by 24 Months of Age	
	DTaP, IPV, MMR, Hib, HBV, and VZV Rate (4:3:1:3:3:1 Combo)	DTaP, IPV, MMR, Hib, HBV, VZV, and PCV Rate (4:3:1:3:3:1:4 Combo)
Care 1st Arizona	83.4	78.5
	87.2	80.8
CRS	79.8	76.1
	n/a	n/a
DES/CMDP	78.1	68.8
	85.1	77.3
DES/DDD	45.9	42.1
	76.3	60.2
Health Choice Arizona	86.0	84.6
	75.3	65.2
Health Net Access	21.8	20.9
	n/a	n/a
Maricopa Health Plan	80.7	76.3
	87.0	69.1
Mercy Care Plan	69.6	64.9
	85.4	77.9
Phoenix Health Plan	83.8	79.9
	77.6	65.6
United Health Care	74.0	70.6
	79.6	69.4
University Family Care	82.2	77.1
	79.2	79.2
Total	76.0	71.7
	72.9	69.1

Graph 2:
Percentage of Immunizations meeting MPS, by Health Plan



Results by County

The data was analyzed by county in order to determine if any disparities exists. For comparative purposes Greenlee was not included in the analysis due to the small, incomparable population size. Counties who had 100 percent compliance for any immunization were not included in the disparity analysis. While these counties are included in the tables below, they were not used in calculating disparities. For individual immunizations, Gila County had comparatively lower rates for three immunizations; DTaP, MMR and Hep A. Vaccine combinations showed no disparities within the counties. Contractors which serve counties showing disparities for any vaccine will be encouraged to study potential barriers leading to lower compliance.

Table 3:

Percentage of Immunizations Completed by 24 Months of Age, by County

County	Percent of Immunizations Completed by 24 Months of Age									
	DtaP (4 doses)	IPV (3 doses)	MMR (1 dose)	Hib (3 doses)	Hep B (3 doses)	VZV (1 dose)	PCV (4 doses)	Hep A (1 dose)	RV (2-3 doses)	Flu (2 doses)
Apache	80.0	100.0	80.0	100.0	80.0	80.0	40.0	60.0	40.0	60.0
Cochise	82.7	93.9	98.0	93.9	94.9	98.0	76.5	91.8	**61.2**	49.0
Coconino	87.2	100.0	97.4	97.4	97.4	97.4	89.7	97.4	71.8	56.4
Gila	**58.6**	75.9	**65.5**	72.4	79.3	65.5	58.6	**75.9**	55.2	17.2
Graham	91.3	91.3	91.3	91.3	95.7	87.0	87.0	91.3	65.2	26.1
Greenlee	100	100.0	100.0	50.0	100.0	100.0	0	100.0	0	100.0
La Paz	87.5	100.0	100.0	100.0	100.0	100.0	87.5	87.5	75.0	37.5
Maricopa	80.2	88.1	91.9	86.6	86.7	91.4	77.1	92.1	77.0	41.2
Mohave	80	91.2	94.4	89.6	88.0	92.0	76.0	90.4	73.6	44.0
Navajo	86.1	86.1	91.7	88.9	83.3	91.7	80.6	86.1	77.8	50.0
Pima	86.0	92.8	93.4	92.3	93.4	93.6	86.1	92.3	74.4	62.8
Pinal	87.3	93.6	95.9	93.2	91.4	95.9	81.8	95.9	81.4	50.5
Santa Cruz	87.5	95.8	97.9	95.8	97.9	97.9	83.3	93.8	72.9	37.5
Yavapai	71.3	86.1	86.1	87.1	86.1	83.2	69.3	**81.2**	71.3	40.6
Yuma	91.1	96.4	95.9	95.9	95.9	95.9	86.4	96.4	91.1	42.6
TOTAL	81.7	89.6	92.5	88.5	88.6	92.0	78.8	92.0	76.4	45.0

Bold indicates a disparity exists

Table 4:

Percentage of Immunizations Completed by 24 Months of Age, by County

County	Percent of Immunizations Completed by 24 Months of Age	
	DtaP, IPV, MMR, Hib, HBV, and VZV Rate (4:3:1:3:3:1 Combo)	DtaP, IPV, MMR, Hib, HBV, VZV, and PCV Rate (4:3:1:3:3:1:4 Combo)
Apache	40.0	20
Cochise	77.6	69.4
Coconino	87.2	84.6
Gila	55.2	51.7
Graham	87.0	82.6
Greenlee	50.0	0.0
La Paz	87.5	75.0
Maricopa	73.3	68.9
Mohave	76.8	72.0
Navajo	83.3	77.8
Pima	82.8	80.7
Pinal	83.6	77.7
Santa Cruz	87.5	81.3
Yavapai	68.3	63.4
Yuma	88.8	83.4
TOTAL	76.0	71.7

Results by Race/Ethnicity

The data was analyzed by race/ethnicity in order to determine if any disparities exists. For individual immunizations, both African Americans and Caucasians showed disparities for all immunizations. American Indians showed disparities for DtaP, IPV, Hib, PCV and RV, all of which require more than one dose of the vaccine and may be attributing to the lower rates. Contractors must further analyze their data to identify any trends leading to these disparities and develop interventions to improve compliance rates.

Table 5:

Percentage of Immunizations Completed by 24 Months of Age, by Race/Ethnicity

Race/Ethnicity	Percent of Immunizations Completed by 24 Months of Age									
	DtaP (4 doses)	IPV (3 doses)	MMR (1 dose)	Hib (3 doses)	Hep B (3 doses)	VZV (1 dose)	PCV (4 doses)	Hep A (1 dose)	RV (2-3 doses)	Flu (2 doses)
American Indian	**75.8**	**87.0**	91.9	**82.6**	89.4	90.7	**71.4**	93.2	**68.9**	39.8
African American	**75.9**	**84.9**	**89.4**	**83.9**	**84.4**	**90.1**	**72.1**	**88.9**	**65.2**	**36.6**
Asian/Pacific Islander	82.4	**86.1**	90.7	**83.3**	**83.3**	88.9	76.9	90.7	76.9	46.3
Caucasian	**76.8**	**85.6**	**89.1**	**84.3**	**84.5**	**87.8**	**73.9**	**87.7**	**74.1**	**41.7**
Hispanic	86.6	93.3	94.8	92.0	92.2	94.7	83.9	94.9	81.4	47.7
Other	75.0	75.0	87.5	87.5	62.5	87.5	62.5	100.0	62.5	75.0
Unknown	**75.5**	**86.9**	92.9	88.8	**85.3**	92.4	**73.6**	**91.0**	**67.8**	49.3
TOTAL	81.7	89.6	92.5	88.5	88.6	92.0	78.8	92.0	76.4	45.0

Bold indicates a disparity exists

Table 6:

Percentage of Immunizations Completed by 24 Months of Age, by Race/Ethnicity

County	Percent of Immunizations Completed by 24 Months of Age	
	DtaP, IPV, MMR, Hib, HBV, and VZV Rate (4:3:1:3:3:1 Combo)	DtaP, IPV, MMR, Hib, HBV, VZV, and PCV Rate (4:3:1:3:3:1:4 Combo)
American Indian	**67.1**	**62.7**
African American	**69.5**	**63.8**
Asian/Pacific Islander	72.2	66.7
Caucasian	**69.8**	**65.8**
Hispanic	81.8	77.6
Other	50.0	50.0
Unknown	**71.7**	**67.3**
TOTAL	76.0	71.7

Bold indicates a disparity exists

DISCUSSION AND CONCLUSION

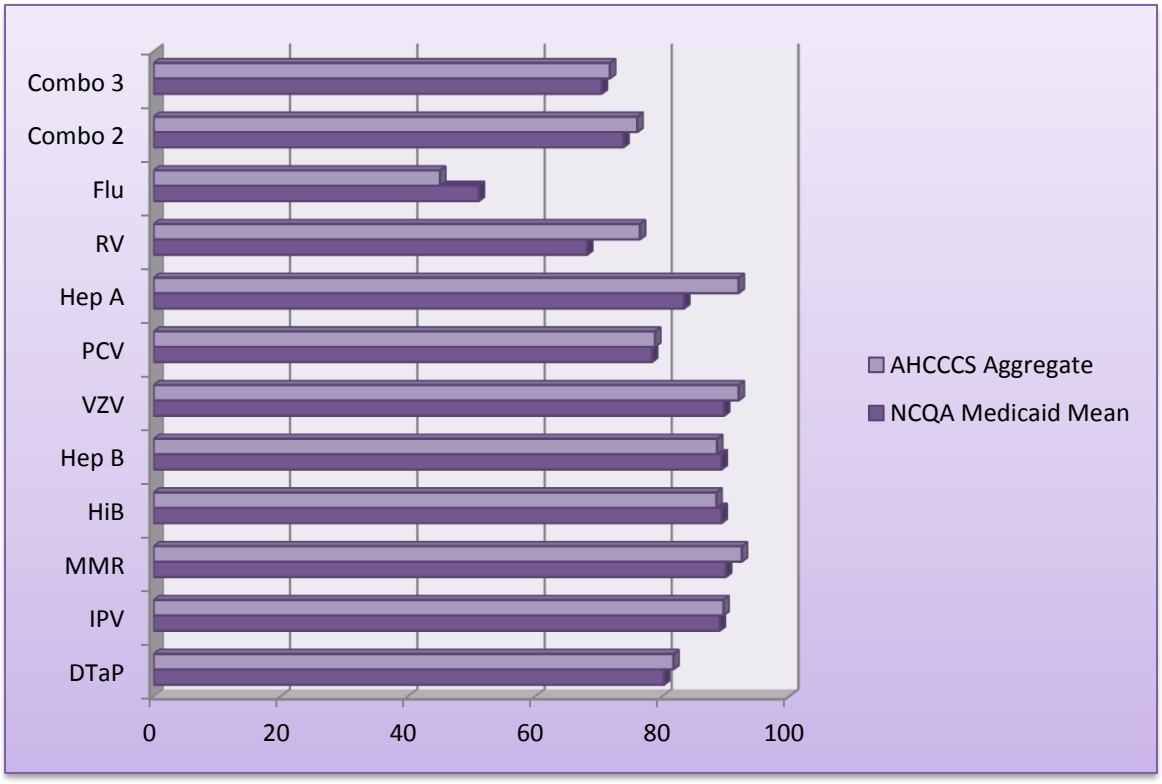
The methodology used to administer these performance measures have been used by Medicaid health plans since 1995 and provide a reliable method to measure compliance with immunization for children two years of age who have been enrolled in these health plans for a year or more. AHCCCS Contractors are contractually mandated to track and trend performance for childhood immunization and provide an action plan for how each will work to reach the established MPS and potential goals. Contractors who do not meet the MPS must submit a Corrective Action Plans (CAPs) and may be subject to sanctions if improvement does not occur.

AHCCCS provides data to Contractors for further analysis and to identify barriers and areas in need for improvement so that interventions can be developed and implemented. AHCCCS will continue to work with Contractors, especially those with the lowest rates of childhood immunizations, to assist them in making progress toward state and national goals. Sustained success and continual improvement will be the major focus over the next two years.

National Comparisons

AHCCCS rates for all immunizations, except influenza, met or exceeded the most recent national means for Medicaid health plans reported by the National Committee for Quality Assurance (NCQA) within the State of Health Care Quality 2015 report. NCQA produces this report annually and it focuses on quality issues this country faces and assists in driving improvement in the delivery of evidence-based medicine and care. The report trends performance overtime, tracks variations in care and recommends quality improvement. When compared on a national Medicaid level, Arizona has high compliance rates regarding childhood immunization.

Graph 3:
Percentage of Immunizations meeting or exceeding national average MPS, by Immunization



The following recommendations to improve or maintain immunization completion rates among two year old members enrolled in AHCCCS were compiled from evidence-based research and identified best practices Many AHCCCS Contractors have implemented several of these strategies, and their continued use should help sustain or further improve performance.

Contractors should continue using a variety of means to reach parents/guardians and encourage them to complete their children's immunizations. Mail and telephone reminders to parents and providers have been found to be effective in improving immunization-completion rates. In addition, Contractors may consider offering incentives to parents of children who complete all immunizations by 24 months.

In addition to ongoing monitoring of completion of all childhood vaccinations, Contractors should focus on rates of DTaP and PCV completion, particularly those children who have received only three doses. Given the effect that missing the fourth dose has on completion rates for the full series of immunizations, health plans and providers should focus on ensuring that children receive all the necessary doses of these vaccines.

Since all childhood vaccines can be completed at about 15 months of age, Contractors should begin checking the immunization status of members at 12 months of age. If members are lacking doses, this could give parents time to get immunizations completed by the time their children turn 2 years. Contractors should utilize the CDC's "catch up" immunization schedule, which is included in Appendix B, to help plan for completion of vaccinations. When children are overdue, Contractors should consider the additional step of assisting parents/guardians with making appointments with their Primary Care Physicians (PCPs) and make arrangements for transportation assistance if needed.

Contractors should target outreach for specific racial/ethnic groups, as needed. Results showed that African Americans and Caucasian children had consistent disparities when compared to their Hispanic counterparts. American Indian members also showed disparities for several vaccines. Contractors should work to bring rates up within these populations by conducting a needs analysis and developing culturally competent interventions.

Contractors should continue or enhance member education to overcome parental fears regarding vaccination. This includes direct communication with members and working with providers to ensure that parents and guardians understand the potential consequences of not having children fully immunized — including seizures, meningitis, hearing impairment and even death due to infectious diseases.

Contractors should use and encourage its network providers to utilize resources from the CDC's National Immunization Program (NIP), such as Vaccine Information Statements, which provide easy-to-understand information on the benefits and risks of specific vaccines. A Vaccine Information Statement (VIS) must be provided to the recipient of any vaccine covered by the National Childhood Vaccine Injury Act (NVCIA), which includes most immunizations given in childhood, and are available for all vaccines licensed in the U.S. Copies of VISs are available from state health authorities responsible for immunization, or they can be obtained from the CDC's website (www.cdc.gov) or from the Immunization Action Coalition (www.immunize.org). Translations of VISs into languages other than English also are available from the Immunization Action Coalition website and may be available from state immunization programs.

One approach to overcoming unwarranted parental refusal that is seeing some success nationally is to educate providers that a parent's refusal at one visit does not necessarily mean that unnecessary fears and objections cannot be overcome in the future. Providers should continue to try educating parents that have previously refused vaccines, focusing on those that are the subject of the least amount of misinformation. Parents may agree to a few vaccines at first and their fears may be eased over time.

Contractors should target outreach activities in specific geographic areas, as needed. Results showed that Gila County had a few disparities for DTaP, MMR and HEP A. Contractors who serve these counties should work to bring

rates in these areas up, including working with providers and possibly county health departments to identify barriers to immunizations and resources to address those barriers. Education in vaccine management and delivery for providers serving some areas of the state may be helpful.

Contractors should continue to ensure that health care professionals providing immunizations report all vaccinations to ASIIS. With complete reporting, an automated registry is a valuable tool in helping providers determine the immunization status of children they are seeing at each visit, so that opportunities to vaccinate are not missed. This is especially important when children receive immunizations at multiple sites and parents do not have current immunization records. Use of ASIIS to check patients' immunization status should prevent the need for them to return for vaccinations.

Contractors should encourage providers to implement an Electronic Health Record (EHR) system. Not only is there value in automating health records for the providers, but would also aid the Contractors in gathering complete data without relying on paper records or disrupting physician office routines. In addition, eligible providers may be eligible to receive incentive payments from CMS if they meet the necessary requirements, one of which being to electronically share immunization information utilizing a certified EHR to the state immunization system, ASIIS.

AHCCCS and its Contractors will continue to monitor immunization coverage levels among children. AHCCCS also will continue to work with low-performing Contractors to ensure they meet contractual standards and goals.

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Appendix A – Statistical Significance Calculation Tables

AHCCCS Contractor	Percent of Immunizations Completed by 24 Months of Age									
	DTaP (4 doses)	IPV (3 doses)	MMR (1 dose)	Hib (3 doses)	Hep B (3 doses)	VZV (1 dose)	PCV (4 doses)	Hep A (1 dose)	RV (2-3 doses)	Flu (2 doses)
Care 1st Arizona	85.8	92.9	93.3	92.5	94.5	93.3	82.6	93.1	83.2	49.1
	88.6	96.8	94.2	96.2	94.2	92.9	87.2	n/a	n/a	n/a
Statistical Significance (p value)	P=.197	P=.078	P=.682	P=.109	P=.889	P=.877	P=.173			
CRS	82.9	92.7	94.9	94.1	92.2	94.3	82.4	93.7	65.3	53.3
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Statistical Significance (p value)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
DES/CMDP	82.4	95.1	98.0	94.5	93.1	97.4	77.7	96.1	70.8	55.8
	85.1	95.5	95.2	94.4	95.2	95.2	85.1	n/a	n/a	n/a
Statistical Significance (p value)	P=.326	P=.800	**P=.031**	P=.109	P=.258	P=.111	**P=.014**			
DES/DDD	63.9	72.2	84.2	81.2	66.2	81.2	58.6	86.5	57.1	40.6
	74.2	79.6	80.7	87.1	78.5	82.8	76.3	n/a	n/a	n/a
Statistical Significance (p value)	P=.102	P=.205	P=.485	P=.239	P=.044	P=.760	**P=.006**			
Health Choice Arizona	90.9	93.7	93.5	94.7	91.1	93.9	88.8	94.7	89.5	52.7
	77.5	88.8	89.7	89.4	84.5	88.7	75.3	n/a	n/a	n/a
Statistical Significance (p value)	**P<.001**	**P=.002**	**P=.014**	**P=.001**	**P<.001**	**P=.001**	**P<.001**			
Health Net Access	52.0	63.8	80.4	27.1	62.4	79.0	49.3	82.5	59.8	10.5
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Statistical Significance (p value)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Maricopa Health Plan	85.2	91.5	93.7	90.1	89.2	93.7	81.3	93.5	81.9	43.2
	86.6	94.7	96.7	94.3	82.9	95.5	86.9	n/a	n/a	n/a
Statistical Significance (p value)	P=.611	P=.114	P=.082	P=.051	**P=.016**	P=.315	P=.053			
Mercy Care Plan	76.9	83.2	88.2	85.2	81.3	87.8	72.6	90.9	76.9	35.3
	83.5	93.6	92.6	93.5	93.6	92.0	85.4	n/a	n/a	n/a
Statistical Significance (p value)	**P=.005**	**P<.001**	**P=.012**	**P<.001**	**P<.001**	**P=.020**	**P<.001**			
Phoenix Health Plan	87.8	92.7	93.7	93.7	91.1	93.5	84.8	93.7	87.6	44.6
	77.2	91.0	90.2	90.8	87.0	89.1	77.6	n/a	n/a	n/a
Statistical Significance (p value)	**P<.001**	P=.251	P=.020	**P=.050**	**P=.020**	**P=.005**	**P=.001**			
United Health Care	76.7	89.3	91.3	91.3	90.1	89.9	77.5	87.8	66.3	42.6
	78.9	91.3	91.9	92.1	88.6	91.1	79.6	n/a	n/a	n/a
Statistical Significance (p value)	P=.351	P=.226	P=.713	P=.587	P=.410	P=.486	P=.372			
University Family Care	85.6	92.5	93.3	90.7	93.1	93.1	80.5	90.7	79.3	45.8
	75.3	91.9	90.4	91.2	92.2	90.3	79.2	n/a	n/a	n/a
Statistical Significance (p value)	**P<.001**	P=.710	P=.091	P=.785	P=.592	P=.097	P=.605			
TOTAL	**81.7**	**89.6**	**92.5**	**88.5**	**88.6**	**92.0**	**78.8**	**92.0**	**76.4**	**45.0**
PREVIOUS TOTAL	79.5	91.4	91.3	91.5	87.9	90.5	79.9	n/a	n/a	n/a
Statistical Significance (p value)	**P=.005**	**P=.003**	**P=.035**	**P<.001**	P=.262	**P=.008**	P=.171			

Appendix B – Immunization Schedule

2014 Recommended Immunizations for Children from Birth Through 6 Years Old

Vaccine	Birth	1 month	2 months	4 months	6 months	12 months	15 months	18 months	19–23 months	2–3 years	4–6 years
HepB	HepB	HepB			HepB						
RV			RV	RV	RV						
DTaP			DTaP	DTaP	DTaP		DTaP				DTaP
Hib			Hib	Hib	Hib	Hib					
PCV			PCV	PCV	PCV	PCV					
IPV			IPV	IPV	IPV						IPV
Influenza (Yearly)*											
MMR											MMR
Varicella											Varicella
HepA§											

Is your family growing? To protect your new baby and yourself against whooping cough, get a Tdap vaccine in the third trimester of each pregnancy. Talk to your doctor for more details.

Shaded boxes indicate the vaccine can be given during shown age range.

NOTE: If your child misses a shot, you don't need to start over, just go back to your child's doctor for the next shot. Talk with your child's doctor if you have questions about vaccines.

FOOTNOTES: * Two doses given at least four weeks apart are recommended for children aged 6 months through 8 years of age who are getting a flu vaccine for the first time and for some other children in this age group.

§ Two doses of HepA vaccine are needed for lasting protection. The first dose of HepA vaccine should be given between 12 months and 23 months of age. The second dose should be given 6 to 18 months later. HepA vaccination may be given to any child 12 months and older to protect against HepA. Children and adolescents who did not receive the HepA vaccine and are at high-risk, should be vaccinated against HepA.

If your child has any medical conditions that put him at risk for infection or is traveling outside the United States, talk to your child's doctor about additional vaccines that he may need.

SEE BACK PAGE FOR MORE INFORMATION ON VACCINE-PREVENTABLE DISEASES AND THE VACCINES THAT PREVENT THEM.

Appendix C – Technical Specifications

Numerators

For MMR, hepatitis B, VZV and hepatitis A, count any of the following:

- Evidence of the antigen or combination vaccine, or
- Documented history of the illness, or
- A seropositive test result for each antigen.

For DTaP, IPV, HiB, pneumococcal conjugate, rotavirus and influenza, count only:

- Evidence of the antigen or combination vaccine.

For combination vaccinations that require more than one antigen (i.e., DTaP and MMR), evidence of all the antigens must be found.

DTaP

At least four DTaP vaccinations (DTaP Vaccine Administered Value Set), with different dates of service on or before the child's second birthday. Do not count a vaccination administered prior to 42 days after birth.

IPV

At least three IPV vaccinations (Inactivated Polio Vaccine (IPV) Administered Value Set), with different dates of service on or before the child's second birthday. Do not count a vaccination administered prior to 42 days after birth.

MMR

Any of the following with a date of service on or before the child's second birthday meet criteria:

- At least one MMR vaccination (Measles, Mumps and Rubella (MMR) Vaccine Administered Value Set).
- At least one measles and rubella vaccination (Measles/Rubella Vaccine Administered Value Set) and at least one mumps vaccination or history of the illness (Mumps Vaccine Administered Value Set; Mumps Value Set) on the same date of service or on different dates of service.
- At least one measles vaccination or history of the illness (Measles Vaccine Administered Value Set; Measles Value Set) and at least one mumps vaccination or history of the illness (Mumps Vaccine Administered Value Set; Mumps Value Set) and at least one rubella vaccination or history of the illness (Rubella Vaccine Administered Value Set; Rubella Value Set) on the same date of service or on different dates of service.

HiB

At least three HiB vaccinations (Haemophilus Influenzae Type B (HiB) VaccineAdministered Value Set), with different dates of service on or before the child's second birthday. Do not count a vaccination administered prior to 42 days after birth.

Hepatitis B

Either of the following on or before the child's second birthday meet criteria:

- At least three hepatitis B vaccinations (Hepatitis B Vaccine Administered Value Set), with different dates of service.
- History of hepatitis illness (Hepatitis B Value Set).

VZV

Either of the following on or before the child's second birthday meet criteria:

- At least one VZV vaccination (Varicella Zoster (VZV) Administered Value Set), with a date of service on or before the child's second birthday.
- History of varicella zoster (e.g., chicken pox) illness (Varicella Zoster Value Set).

Pneumococcal Conjugate

At least four pneumococcal conjugate vaccinations (Pneumococcal Conjugate Vaccine Administered Value Set), with different dates of service on or before the child's second birthday. Do not count a vaccination administered prior to 42 days after birth.

Hepatitis A

Either of the following on or before the child's second birthday meet criteria:

- At least one hepatitis A vaccination (Hepatitis A Vaccine Administered Value Set), with a date of service on or before the child's second birthday.
- History of hepatitis A illness (Hepatitis A Value Set).

Rotavirus

Any of the following on or before the child's second birthday meet criteria. Do not count a vaccination administered prior to 42 days after birth.

- At least two doses of the two-dose rotavirus vaccine (Rotavirus Vaccine [2 Dose Schedule] Administered Value Set) on different dates of service.
- At least three doses of the three-dose rotavirus vaccine (Rotavirus Vaccine [3 Dose Schedule] Administered Value Set) on different dates of service.
- At least one dose of the two-dose rotavirus vaccine (Rotavirus Vaccine [2 Dose Schedule] Administered Value Set) and at least two doses of the three-dose rotavirus vaccine (Rotavirus Vaccine [3 Dose Schedule] Administered Value Set), all on different dates of service.

Influenza

At least two influenza vaccinations (Influenza Vaccine Administered Value Set), with different dates of service on or before the child's second birthday. Do not count a vaccination administered prior to six months (180 days) after birth.

Combination rates

Calculate the following rates for Combination 2–Combination 10.

Combination Vaccinations for Childhood Immunization Status

Combination	DTaP	IPV	MMR	HiB	Hep B	VZV	PCV	Hep A	RV	Influenza
Combination 2	x	x	x	x	x	x				
Combination 3	x	x	x	x	x	x	x			
Combination 4	x	x	x	x	x	x	x	x		
Combination 5	x	x	x	x	x	x	x		x	
Combination 6	x	x	x	x	x	x	x			x
Combination 7	x	x	x	x	x	x	x	x	x	
Combination 8	x	x	x	x	x	x	x	x		x
Combination 9	x	x	x	x	x	x	x		x	x
Combination 10	x	x	x	x	x	x	x	x	x	x

Exclusion (optional)

Exclude children who had a contraindication for a specific vaccine from the denominator for all antigen rates and the combination rates. The denominator for all rates must be the same.

Exclude contraindicated children only if administrative data do not indicate that the contraindicated immunization was rendered in its entirety.

Any of the following on or before the child's second birthday meet optional exclusion criteria:

Any particular vaccine:

- Anaphylactic reaction to the vaccine or its components (Anaphylactic Reaction Due To Vaccination Value Set).

DTaP:

- Encephalopathy (Encephalopathy Due To Vaccination Value Set) with a vaccine adverse-effect code (Vaccine Causing Adverse Effect Value Set).

MMR, VZV and Influenza:

- Immunodeficiency (Disorders of the Immune System Value Set).
- HIV (HIV Value Set).
- Lymphoreticular cancer, multiple myeloma, or leukemia (Malignant Neoplasm of Lymphatic Tissue Value Set).
- Anaphylactic reaction to neomycin.

IPV:

- Anaphylactic reaction to streptomycin, polymyxin B or neomycin.

Hepatitis B:

- Anaphylactic reaction to common baker's yeast.

D. HYBRID SPECIFICATION

Denominator

A systematic sample drawn from the eligible population.

Use a sample size of 411, unless special circumstances apply. States may reduce the sample size using information from the current year's administrative rate or the prior year's audited, hybrid rate. Regardless of the selected sample size, NCQA recommends an oversample to allow for substitution in the event that cases in the original sample turn out to be ineligible for the measure. For additional information on using a reduced sample size, refer to Appendix B, Guidance for Selecting Sample Sizes for Hybrid Measures.

Numerators

For MMR, hepatitis B, VZV, and hepatitis A, count any of the following.

- Evidence of the antigen or combination vaccine.
- Documented history of the illness.
- A seropositive test result.

For DTaP, HiB, IPV, pneumococcal conjugate, rotavirus, and influenza, count only:

- Evidence of the antigen or combination vaccine.
- For combination vaccinations that require more than one antigen (i.e., DTaP and MMR), evidence of all the antigens must be found.

Administrative

Refer to Administrative Specification to identify positive numerator hits from the administrative data.

Medical Record

For immunization evidence obtained from the medical record, count children where there is evidence that the antigen was rendered from one of the following:

- A note indicating the name of the specific antigen and the date of the immunization.
- A certificate of immunization prepared by an authorized health care provider or agency including the specific dates and types of immunizations administered.

For documented history of illness or a seropositive test result, there must be a note indicating the date of the event, which must have occurred by the child's second birthday.

Notes in the medical record indicating that the child received the immunization "at delivery" or "in the hospital" may be counted toward the numerator only for immunizations that do not have minimum age restrictions (e.g., before 42 days after birth). A note that the "child is up to date" with all immunizations but which does not list the dates of all immunizations and the names of the immunization agents does not constitute sufficient evidence of immunization for HEDIS reporting.

Immunizations documented using a generic header or "DTaP/DTP/DT" can be counted as evidence of DTaP. The burden to substantiate the DTaP antigen is excessive compared to a risk associated with data integrity.

For rotavirus, if documentation does not indicate whether the two-dose schedule or three-dose schedule was used, assume a three-dose schedule and find evidence that three doses were administered.

Exclusion (Optional)

Refer to Administrative Specification for exclusion criteria. The exclusion must have occurred by the child's second birthday.

E. ADDITIONAL NOTES

This measure follows the Centers for Disease Control and Prevention (CDC) and Advisory Committee on Immunization Practices (ACIP) guidelines for immunizations. HEDIS implements changes to the guidelines (e.g., new vaccine recommendations) after three years, to account for the measure's look-back period and to allow the industry time to adapt to new guidelines.