

**Arizona Health Care Cost Containment System (AHCCCS)
Arizona Long Term Care System (ALTCS)**

**PERFORMANCE IMPROVEMENT PROJECT (PIP):
Reducing Inappropriate Refusal of Influenza Vaccine among Long-term Care Members
Second Remeasurement: Sept. 1, 2010, through March 31, 2011**

Background

Epidemics of influenza typically occur during the winter months, and have been associated with an average of 226,000 hospitalizations and approximately 36,000 deaths per year in the United States. Rates of serious illness and death are highest among persons age 65 years and older.¹

Vaccination is a cost-effective way of preventing the flu, and reducing the risk of hospitalization and death among the elderly and those with chronic illness. According to the Centers for Disease Control and Prevention (CDC), flu shots can be 50- to 60-percent effective in preventing hospitalization or pneumonia due to influenza among elderly nursing-home resident, and 80-percent effective in preventing death from the flu. Among elderly persons not living in nursing homes or similar chronic-care facilities, influenza vaccine is 30- to 70-percent effective in preventing hospitalization for pneumonia and influenza.¹ Thus, improving rates of influenza vaccination has significant potential to reduce death and disease, as well as costs for inpatient care among this population.

AHCCCS previously measured influenza vaccination rates among Arizona Long Term Care System (ALTCS) Contractors as a Performance Measure. The standard was dropped in 2002 because coverage was deemed to be at consistently high levels. However, a relatively high percentage of members or their authorized representatives refused vaccination. Recent measurement of influenza vaccination by individual Contractors indicates there is still room for improvement in flu vaccination levels among ALTCS members, with reported rates in CYE 2006 of less than 80 percent among members in nursing homes and as low as 40 percent among members in home and community based settings.

Nationally, self-reported influenza vaccination rates during the 2006-07 season, when this Performance Improvement Project (PIP) was implemented, were 65.6 percent among all people 65 years and older and 36.0 percent among all people 50 to 64 years, according to the CDC. The self-reported vaccination rate among people 18 through 64 years with high-risk conditions was only 33.4 percent. In the 2008-09 season, rates were 65.5 percent among all people 65 years and older and 40.1 percent among all people 50 to 64 years. The rate among people 18 through 64 years with high-risk conditions was 38.8 percent.²

Prior to 2011, the CDC recommended that all persons age 50 years or older have one dose of seasonal influenza vaccine each year. Vaccination of persons ages 19 through 49 years was primarily recommended for those with certain chronic medical conditions (such as asthma, cardiovascular disease and diabetes) or whose immune systems were suppressed, and women who were pregnant during the influenza season. All health-care personnel, including those employed by long-term care and assisted-living facilities, and caregivers of children aged <5 years, also were included in the recommendation for annual vaccination, as were residents of nursing homes and other long-term care and assisted-living facilities and persons likely to transmit influenza to persons at high risk.

In early 2011, the CD published a revised Adult Immunization Schedule, recommending annual vaccination against seasonal influenza for all persons ages 6 months and older, including all adults.

Purpose

The purpose of this PIP is to support good health outcomes among ALTCS members through high levels of influenza vaccination. AHCCCS and its Contractors will work to improve education of members and caregivers about the benefits of influenza immunization and the minimal risks associated with vaccines compared with the risks of disease, thus decreasing unnecessary or uninformed refusal of vaccination against influenza.

Goal

In 2000, the U.S. Department of Health and Human Services set *Healthy People 2010* objectives for annual influenza vaccination of 90 percent for residents of long-term care facilities and 60 percent for people 18 through 64 years with high-risk conditions. AHCCCS has set a goal of 90 percent for annual vaccination among all ALTCS elderly and physically disabled members (E/PD). However, for the purpose of this PIP, ALTCS E/PD Contractors must demonstrate improvements in their vaccination rates from the Baseline Measurement.

Study Question

What is the number and percentage of ALTCS members who did not receive an influenza vaccination for reasons other than medical contraindications during the measurement period?

Measurement Periods

Baseline Measurement: September 1, 2007, through March 31, 2008

First Remeasurement: September 1, 2009, through March 31, 2010

Second Remeasurement: September 1, 2010, through March 31, 2011

Additional measurements will be conducted as necessary for all Contractors to demonstrate significant and sustained improvement.

Population

The population will consist of ALTCS E/PD members

Population Exclusions

For the Second Remeasurement, the following members will be excluded from the population:

- Members who enrolled in ALTCS after October 1, 2010
- Members who are not placed in a nursing facility (Q placement) or a home and community based setting (H placement)
- Members who died during the measurement period
- Tribal and Fee-for-service members, because of the inability to accurately collect complete data on these members, who often obtain medical care through Indian Health Services
- Members enrolled with DES/DDD
- Members who had a gap in enrollment between October 1, 2010, and March 31, 2011
- Members younger than 18 years of age
- Members who change Contractors within the measurement period
- E/PD members who receive Acute Care services only

Population Stratification

The population will be stratified by Contractor

Sample Frame

The sample frame will consist of members who:

- Were continuously enrolled with one ALTCS E/PD Contractor from October 1, 2010, through March 31, 2011, with no gaps in enrollment, and were enrolled on the last day of the measurement period
- Were placed in a nursing facility (Q placement) or a home and community based setting (H placement)
- Were at least 18 years old as of September 1 of the measurement period

Sample Selection

A statistical software package will be used to select a random representative sample by Contractor from the sample frame. The sample size will be determined using a 95-percent confidence level and a 5-percent confidence interval, plus an oversample of 10 percent.

Data Sources

- AHCCCS recipient data will be used to select the sample frame.
- AHCCCS will collect service data (influenza vaccinations) for sample members from its encounter system.
- Contractors will collect additional service data using claims, immunization records, and/or medical records supplied by providers, well as any data that will exclude members from the denominator; e.g., medical contraindication to vaccination.
- The following CPT codes will be used to identify an influenza vaccination from administrative data (claims/encounters):

90656	Influenza virus vaccine, split virus, preservative free, when administered to individuals 3 years and older, for intramuscular use
90658	Influenza virus vaccine, split virus, when administered to individuals 3 years and older, for intramuscular use
90661	Influenza virus vaccine, derived from cell cultures, subunit, preservative and antibiotic free, for intramuscular use
90662	Influenza virus vaccine, split virus, preservative free, enhanced immunogenicity via increased antigen content, for intramuscular use
90663	Influenza virus vaccine, pandemic formulation

Note: The above vaccine codes may be used in conjunction with CPT codes 90471 and 90472 for immunization administration; however, the code for the vaccine must be included on the claim or encounter.

Indicator Description

The indicator will measure whether sample members received one dose of trivalent (inactivated) influenza vaccine (TIV) during the measurement period or whether members did not receive TIV, which will be considered refusal of vaccination unless they meet exclusionary criteria.

Denominator

The number of members selected for the sample, minus those who met exclusionary criteria

Denominator Exclusions

- Members with a severe allergy to chicken eggs, as documented in medical records
- Members who had a severe reaction to an influenza vaccination in the past, as documented in medical records
- Members who developed Guillain-Barré syndrome within six weeks of getting an influenza vaccine previously, as documented in medical records
- Members who are in hospice during all or part of the measurement period, as documented through medical records or other recipient data

Numerators

The number of members who did not receive an influenza vaccination during the measurement period

Performance Goal

A Contractor's performance will be evaluated on its rate of members who did not receive an influenza vaccination (considered as refusing vaccination), except those excluded for medical reasons. Since lower rates for this measure are better, a Contractor will have demonstrated significant and sustained improvement when it:

- demonstrates a statistically significant decrease from its baseline rate in a remeasurement year and maintains or further reduces its rate in a successive measurement, or
- is the best performing (benchmark) plan in any remeasurement year, and maintains or reduces its rate in a successive measurement.

Data Collection

- Data will be collected through a hybrid methodology. AHCCCS will initially obtain denominator data and some numerator data (influenza vaccinations) for sample members and provide the sample file in a predetermined electronic format to Contractors, with detailed instructions for collecting additional data.
- Contractors will collect additional service and exclusion data and enter it on the electronic data file, which will then be returned to AHCCCS in the predetermined format.
- AHCCCS will require Contractors to submit copies of the source documentation to verify the additional data they collect.

Data Sources

- AHCCCS will collect denominator data from the Recipient Universe of the AHCCCS Data Decision Support (ADDS) data warehouse. Numerator data will be collected by AHCCCS from the Encounter Universe of ADDS, as well as by Contractors, who will collect data from claims, medical records and/or other sources as specified below.
- Sources of vaccination data collected by Contractors may include: claims; physician medical records; CDC patient consent forms signed by members at the time of vaccination showing the specific vaccination and date administered; other immunization records that indicate the type and dates of vaccination and the provider administering the dose; and information provided by SNFs or Assisted Living Facilities (ALFs) on members who received vaccination during the flu season, including copies of immunization sheets or medication administration records that specify the type of vaccination and date administered.
- Medical or immunization records must identify the month, date and year the vaccination was administered.

Confidentiality Plan

AHCCCS continues to work in collaboration with Contractors to maintain compliance with the Health Insurance Portability and Accountability Act (HIPAA) requirements. The Data Analysis and Research (DAR) Unit maintains the following security and confidentiality protocols:

- To prevent unauthorized access, the sample member file is maintained on a secure, password-protected computer, by the DAR project lead.
- Only DAR and Clinical Quality Management (CQM) Unit employees who analyze and/or validate data will have access to study data.
- All employees and Contractors are required to sign a confidentiality agreement.
- Requested data are used only for the purpose of performing health care operations, oversight of the health care system, or research.
- Only the minimum amount of necessary information to complete the project is sent to and returned from Contractors.
- Sample files given to Contractors are tracked to ensure that all records are returned.
- Member names are never identified or used in reporting.
- Upon completion, all study information is removed from the computer and placed on a compact disk, and stored in a secure location.

Data Quality and Validation

- The sample frame will be validated to ensure that members meet criteria for inclusion in the study and that data collected from administrative sources (e.g., AHCCCS encounters) meet numerator criteria. These data will be validated through review of a random sample of members selected for the denominator as well as those not selected, and a random sample of numerator data collected during the initial phase of data collection.
- Data files received back from Contractors will be reviewed to ensure that:
 - All members included in the sample are listed in the returned data file
 - Provided services meet numerator criteria for this performance measure
 - All requested information has been provided
- Service data provided by Contractors must be accompanied by documentation of the source data (i.e., a copy of the pertinent section of the medical record or a copy/screen print of a claim), including the date(s) of service (medical record data must, at a minimum, identify the month and year the service was provided).
- AHCCCS overall encounter data are validated against medical records on an annual basis. Subject to availability of resources, AHCCCS also may conduct a randomized, double-blind study to evaluate the accuracy and completeness of Contractor-supplied data.

Analysis Plan

- A statistical software package will be utilized to calculate results.
- To assist Contractors in better focusing their interventions, additional analyses may be performed to determine if a particular subgroup of the population is less likely to have influenza vaccinations. This will be accomplished by:
 - Examining each indicator by demographic variables including, but not limited to, age, gender, placement, GSA and race/ethnicity.

Comparative Analysis

- Comparative analysis will include:
 - Individual Contractors to the statewide average
 - Any other stratifications as deemed appropriate (i.e. age, gender, race/ethnicity, placement, GSA)
- Differences between baseline study results and remeasurement results will be analyzed for statistical significance and relative change.
- The results of this study will be compared to the results of any other comparable studies, if available.

Limitations

A large portion of the ALTCS E/PD population also is covered by Medicare and often seeks services outside the AHCCCS system. Because Medicare is the primary payer for these beneficiaries, AHCCCS does not have the ability to collect complete information on these services. In addition, members may receive vaccinations in a variety of settings, including seasonal community vaccination clinics. AHCCCS will require review of medical charts by Contractors to supplement administrative data, and the proportion of data abstracted from medical charts will vary by Contractor. Because Contractors may not collect complete data for members, the rate of unvaccinated members, or those without a documented refusal, may be reported as higher than the actual rate. Other unidentified factors besides Contractor interventions may falsely influence results.

Operational Definitions

- *Live attenuated influenza vaccine (LAIV), also known as nasal-spray flu vaccine or FluMist®.* This vaccine is only approved for use in healthy people ages 2 to 49 years, except for pregnant women ("healthy" indicates persons who do not have underlying medical conditions that predispose them to influenza complications). If claim/encounter or medical record data indicate that a member received only this vaccine, he or she will be counted as not having been vaccinated.
- *Influenza vaccination:* Vaccinations may be obtained through AHCCCS EP/D Contractors or from another community source. If the vaccination was provided by another source or payer, and documented by one of the data sources identified as valid for this measurement, the member will be counted as meeting the indicator criteria, unless the claim/encounter or medical record indicates live attenuated influenza vaccine (LAIV), nasal-spray flu vaccine or FluMist. Documentation must specify the date of service, including the month, date and year the vaccine was administered.

References

¹ Centers for Disease Control and Prevention. Prevention and control of influenza. MMWR Recommendations and Reports. 2007: 56(RR06);1-54. Atlanta, 2007. Available at: http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5606a1.htm?s_cid=rr5606a1_e

² Centers for Disease Control and Prevention. Influenza vaccination coverage levels for the 2006–07, 2007–08, and 2008–09 influenza seasons, among population groups — National Health Interview Survey (NHIS), United States, 2007–2009, and National Immunization Survey (NIS), 2006–2008. Available at: <http://www.cdc.gov/flu/professionals/acip/coveragelevels.htm#tab3> Accessed March 4, 2011.

INSTRUCTION FOR CONSTRUCTING FILES

Contractors will submit information via the SFTP server. The data layout and instructions described must be followed for submission to ensure accuracy of data translation and acceptance of data elements by AHCCCS.

- All variable fields must be left justified.
- All variable fields are to be used exactly as indicated in the above tables.
- If information does NOT exist for any variable field, leave blank spaces in the columns.
- Do not add any “new” variables that are not listed in the above table.
- Do not change variable names.
- Do not change the order of the variable fields.
- Do not change any information provided by AHCCCS *except the placement code if incorrect*. If there is a question regarding any other information provided, please notify AHCCCS immediately.
- All dates should be formatted as mm/dd/yyyy. Thus, January 2, 2010 would be reported as 01/02/2010.
- Use the file provided by AHCCCS. Do not change the formatting. The format has been designed for accurate importing of the data into AHCCCS software. Any changes to the format could result in lost information and a request for the Contractor to resubmit the data.
- Use the drop down menu of exclusions to select any appropriate reasons for exclusion of the member from the denominator (note: supporting documentation must be provided for the exclusion to be counted).
- If an influenza vaccination was given during the measurement period, enter the date of service in Column N and 1.00 in Column O.

ANY DEVIATION FROM INSTRUCTIONS FOR SUBMISSION OF DATA WILL NOT BE ACCEPTED AND THE FILE WILL BE RETURNED TO THE CONTRACTOR TO CORRECT.

Data needs to arrive at AHCCCS by close of business, by October 28, 2011.

Technical questions related to the data request should be directed to Lucy Valenzuela: email lucy.valenzuela@azahcccs.gov, or call (602) 417-4753.

All other questions related to the project should be directed to Barbara Yedowitz e-mail barbara.yedowitz@azahcccs.gov, or call (602) 417-4381.