

## **2021-2022 Indian Health Service (IHS) Influenza Vaccination Action Plan**

### **Background:**

Influenza is a serious disease that causes significant morbidity and mortality, especially in the American Indian /Alaska Native (AI/AN) population. Influenza and resulting sequelae such as pneumonia are among the top 10 leading causes of death for AI/ANs, and influenza-related mortality is significantly higher among AI/AN children younger than 5 years being more than 2 times higher than non-Hispanic Whites [1]. Influenza vaccination remains the best strategy for reducing influenza-related illness, and the Advisory Committee on Immunization Practices (ACIP) recommends everyone 6 months and older receive an influenza vaccination each year [2].

With SARS-CoV-2 continuing to circulate since early-2020, increasing influenza vaccination coverage is a particularly important strategy for reducing not only overall disease burden but also stress on the health care system by decreasing hospitalizations and reducing influenza diagnostic testing demand. While all age groups (>6 months) remain priorities for influenza vaccination, additional emphasis this season will be on adults at higher risk from COVID-19 complications, which includes AI/AN populations, adults with underlying illness, and adults who are “essential workers” or otherwise contribute to critical industries, services, or infrastructure.

Healthy People 2030 goals for influenza vaccine are to achieve 70% seasonal influenza vaccine coverage among children ages 6 months to 17 years and among adults 18 years and older, and the IHS coverage target among healthcare personnel (HCP) is 90% [3, 4]. According to the IHS Influenza Awareness System (IIAS), IHS influenza vaccine coverage data for patients has remained relatively unchanged over the last 10 influenza seasons and remains considerably below the Healthy People 2030 goal of 70% [Figure1]. In addition, influenza vaccine coverage among HCP remained relatively stagnant and fell short of the Healthy People 2020 goal of 90% until implementation of policy requiring influenza vaccination among IHS HCP in the 2015-2016 season [Figure 2]. Healthy People 2030 does not specify a goal for HCP influenza vaccine coverage. The IHS Influenza Vaccination Action Plan was developed to provide a framework for IHS to increase influenza vaccination coverage among both patients and HCP with the eventual goals of reducing influenza-related morbidity and mortality among these groups while also achieving Healthy People benchmark(s).

There are significant barriers to vaccinating during this pandemic, which will require additional planning considerations. The Centers for Disease Control and Prevention (CDC) has resources that specify personal protective equipment (PPE) for this season, as well as distancing, scheduling and other coordination activities. Links to these resources are provided in Appendix D.

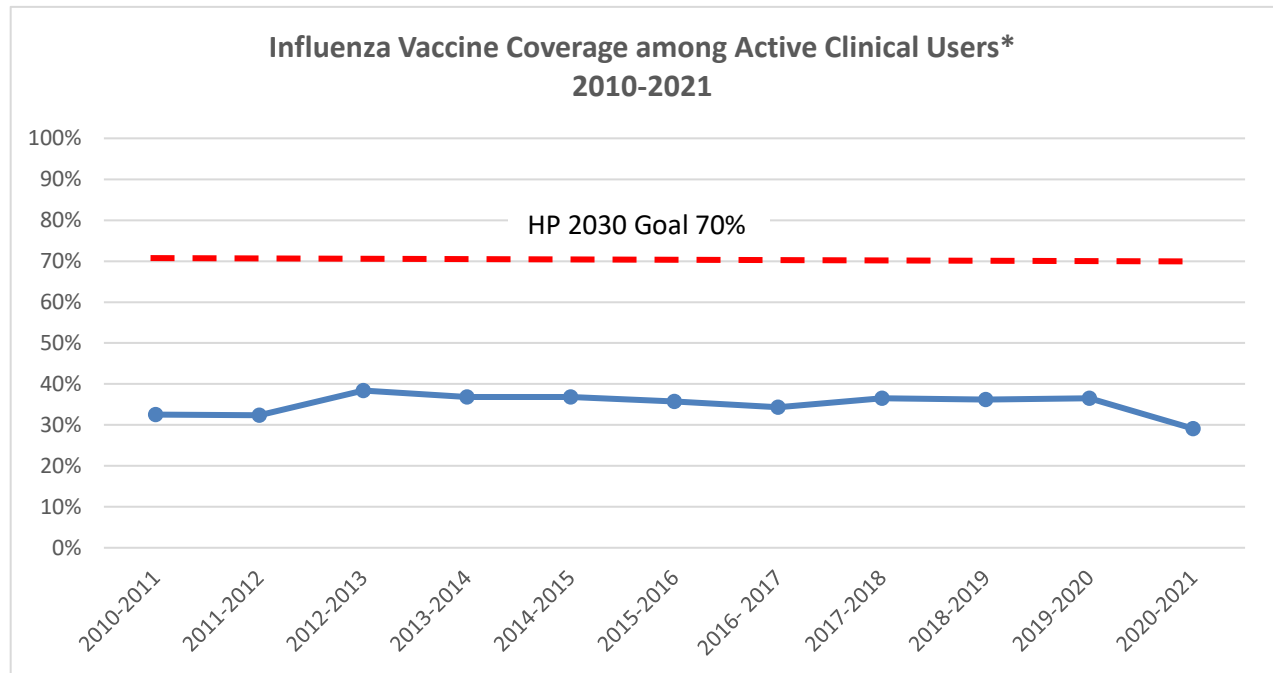
### **Data Limitations**

There are potential limitations that may impact the completeness of the coverage data in this report. At this time, IHS collects all vaccine coverage data through the National Immunization Reporting System (NIRS), which requires a clinic staff person to retrieve data from the clinic’s electronic health record system (EHR) and manually enter that data into NIRS. Because of this effort required, not all clinics report and

therefore coverage assessments from NIRS may be incomplete snapshots of actual coverage.

It is also important to notate that not all clinics utilize the RPMS-EHR for their electronic health record system and therefore may not have the immunization reporting logic required to capture all the same immunization data that RPMS-EHR captures for NIRS data entry. Currently, NIRS does not accommodate the documentation of historical immunizations nor immunizations performed outside the clinic, which may impact rates for 'fully vaccinated' patients.

**Figure 1: Influenza Vaccine Coverage among Active Clinical Users**



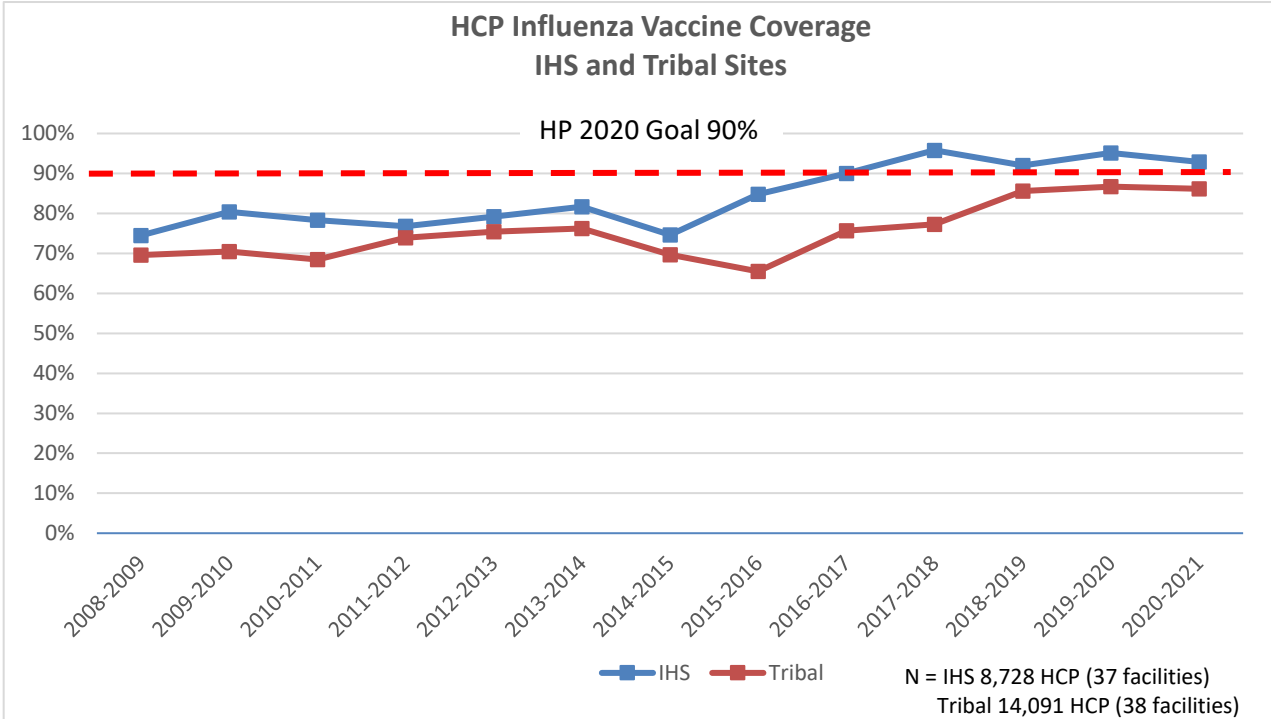
\*Active Clinical Users: Patients with at least 2 visits in the last 3 years, one of which must be to a primary care clinic.

**Table 1: Percentage of Influenza Vaccine Coverage among patients by IHS Area, 2020-2021**

Area	Children (6 mo - 17 yr)	Adults (18+ yr)	Seniors (65+ yr)	All (6 mo +)
NATIONAL	30.1	28.7	30.1	29.1
ALASKA	NR	NR	NR	NR
ALBUQUERQUE	43.3	32.5	11.1	35.0
BEMIDJI	22.3	20.8	27.2	21.2
BILLINGS	27.0	30.1	36.5	29.2
CALIFORNIA	22.8	18.9	26.7	19.8
GREAT PLAINS	27.0	26.3	39.1	26.5
NASHVILLE	30.8	32.3	34.4	31.9
NAVAJO	47.3	44.6	41.2	45.3
OKLAHOMA	18.6	20.2	21.0	19.8
PHOENIX	33.5	32.0	33.9	32.4
PORTLAND	23.2	22.7	31.9	22.8
TUCSON	21.1	21.7	25.8	21.5

\*NR = Not Reported

**Figure 2: Influenza vaccine coverage among healthcare personnel working at an IHS or Tribal facility\***



\*Healthcare personnel defined as all employees, contractors, volunteers and students working in IHS or Tribal Healthcare Facilities

\*\*HP 2030 does not specify a goal for HCP influenza vaccine coverage.

**Table 2: Influenza vaccine coverage among healthcare personnel working at an IHS facility by IHS Area, 2020-2021**

Federal Facilities				
IHS Area	Number of HCP	Received		
		N	%	
ALBUQUERQUE	650	595	91.5	
BEMIDJI	687	628	91.4	
BILLINGS	957	785	82.0	
GREAT PLAINS	413	408	98.8	
NASHVILLE	36	36	100.0	
NAVAJO	3075	2964	96.4	
OKLAHOMA	983	885	90.0	
PHOENIX	1527	1458	95.5	
PORTLAND	400	352	88.0	
<i>IHS TOTAL</i>	<i>8728</i>	<i>8111</i>	<i>92.9</i>	

\*HCP population as reported by sites.

\*\*ALASKA and TUCSON Area are excluded due to their Areas not having any Federal Facilities

**GOALS:**

1. **Reduce influenza-related morbidity and mortality among AI/AN patient populations served by IHS, Tribal, and Urban healthcare facilities by:**
  - a. Increasing influenza vaccine coverage among the IHS Active Clinical User population and achieving the Healthy People 2030 goal of 70% coverage in all age groups.
  
2. **Reduce influenza-related morbidity and mortality among HCP and nosocomial influenza transmission in health facilities serving AI/ANs by:**
  - a. Increasing and/or maintaining influenza vaccine coverage among HCP and achieving the IHS goal of 90% coverage among HCP.

## IHS NATIONAL INFLUENZA PLAN for 2021-2022

To make progress towards achieving these goals, proposed national activities for the 2021-2022 influenza season include:

### 1. Training and Dissemination of Best Practices

- a. **Provide technical assistance to IHS Areas to develop and/or maintain Area Influenza Plans** - Provide data and other resources to assist each IHS Area in developing or updating an Area influenza plan (see Appendix A). Key components will include:
  - i. Identification of barriers to influenza vaccination
  - ii. Strategies to increase influenza vaccine uptake
  - iii. Strategies for influenza mass and alternative vaccination sites during the COVID-19 pandemic
  - iv. Resources
- b. **IHS Influenza Kick-off Event** – Annually in the fall, NIP holds a “Flu Kick-off” webinar for all of IHS. This year’s call was held September 28, 2021 and included: review of current vaccine and treatment recommendations, vaccine supply and procurement updates, and best practices for increasing influenza vaccination. CDC’s operational considerations for this particular season, which include planning for physical distance, will be shared through the Immunization Coordinator network.
- c. **Training opportunities** - The IHS Immunization Program has or will host training opportunities for IHS providers on the following topics:
  - i. **Impact of COVID-19 on Childhood Immunization Services at IHS** – June 2020. Archived recording link: <https://ihs.cosocloud.com/pld4a0u3jzcw/>
  - ii. National IHS COVID-19 ECHO session- July 2020. Archived recording link: [https://www.youtube.com/watch?v=v\\_XlbHmetW8&feature=youtu.be](https://www.youtube.com/watch?v=v_XlbHmetW8&feature=youtu.be)
  - iii. **Childhood and Adult Immunizations During COVID 19** – August 10, 2021. Archived recording link: <https://ihs.cosocloud.com/pld4a0u3jzcw/>
  - iv. **Influenza 2020-2021 Data Sharing**
  - v. **IHS National Immunization Reporting System (NIRS) Overview** – July 13, 2021. Archived recording link: <https://www.youtube.com/watch?v=APsNP-2FHBA>
  - vi. **IHS National Immunization Reporting System (NIRS) Demo** – July 29, 2021. Archived recording link: <https://www.youtube.com/watch?v=PSRmxlbBbNA>
  - vii. **IHS Influenza Webinar FY2022** – September 28, 2021.

### 2. Monitoring and Feedback

- a. **Healthcare Personnel Vaccination Update** – Data on influenza vaccine coverage are collected as of Dec. 31<sup>st</sup> and March 31<sup>st</sup> through the National Immunization Reporting System (NIRS) and will be shared as data become available [Figure 2].
- b. **Government Performance and Results Act (GPRA) Influenza Measure** – The GPRA Influenza measure collects data on influenza vaccine coverage among children ages 6 months – 17 years, adults ages 18 years and older, and overall coverage for patients ages 6 months and older. The most recent GPRA Influenza vaccine coverage goal

under the new Integrated Data Collection System Data Mart is 27.3% for children ages 6 months-17 years, and 25.7% for adults ages 18 years and older. Influenza vaccine coverage data collected in FY 2022 will be used to determine future GPRA IDCS-DM influenza vaccine coverage goals.

- c. **Weekly IHS Influenza Awareness System (IIAS) report** – The IHS Immunization Program will publish a weekly IIAS report available for IHS Area contacts from September to April. This report contains data from the IIAS on Influenza-like illness activity and influenza vaccine coverage. Because of SARS-CoV-2 co-circulation and the symptom similarities, a COVID-like illness (CLI) report has also been created and will be made available in parallel with IIAS ILI reporting.

### 3. Community Outreach

- a. **Distribution of radio public service announcements (PSAs) developed for AI/AN communities to Tribal radio stations** – IHS Immunization Program will work with partners and IHS Public Affairs to distribute PSAs developed by CDC and others for AI/AN communities and featuring native speakers to tribal radio stations (<http://nativepublicmedia.org>) across the country. PSAs can be found here: <http://www.cdc.gov/flu/freeresources/media-psa.htm>.
- b. **Update IHS influenza website to include current influenza resources** – The IHS Immunization Program will ensure the most current AI/AN influenza reports and influenza-related vaccination materials and guidance are available on the IHS website (<https://www.ihs.gov/epi/>).

### 4. Policy

- a. **IHS mandatory Influenza vaccination policy for healthcare personnel (HCP)** – Monitor compliance with the mandatory influenza vaccination policy for all employees, contractors, volunteers and students working in IHS healthcare facilities, which became effective in the 2015-2016 influenza season. All IHS facilities are required to track and report influenza vaccine coverage among HCP two times per influenza season, mid-season as of December 31<sup>st</sup> and end of season as of March 31<sup>st</sup>, through the National Immunization Reporting System.

## References

1. Doxey, M., Chrzaszcz, L., Dominguez, A. and James, R., 2021. *A Forgotten Danger: Burden of Influenza Mortality Among American Indians and Alaska Natives, 1999-2016*. [online] Available at: [https://journals.lww.com/jphmp/Abstract/2019/09001/A\\_Forgotten\\_Danger\\_Burden\\_of\\_Influenza\\_Mortality.4.aspx#:~:text=The%20AI%2FAN%20mortality%20rate,CI%2C%2026.1%2D30.9\).&text=Overall%2C%20mortality%20rates%20dropped%20from,32.8%2D38.6\)%20in%202003](https://journals.lww.com/jphmp/Abstract/2019/09001/A_Forgotten_Danger_Burden_of_Influenza_Mortality.4.aspx#:~:text=The%20AI%2FAN%20mortality%20rate,CI%2C%2026.1%2D30.9).&text=Overall%2C%20mortality%20rates%20dropped%20from,32.8%2D38.6)%20in%202003). [Accessed 8 December 2021].
2. Prevention and Control of Seasonal Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices, United States, 2021-22 Influenza Season. 2021. MMWR 70(5);1-28. [https://www.cdc.gov/mmwr/volumes/70/rr/rr7005a1.htm?s\\_cid=rr7005a1\\_w](https://www.cdc.gov/mmwr/volumes/70/rr/rr7005a1.htm?s_cid=rr7005a1_w)
3. Healthy People 2020 Objectives. <https://www.healthypeople.gov/2020/About-Healthy-People> and [https://www.ihs.gov/california/tasks/sites/default/assets/File/GPRA/BP2011\\_HealthyPeople2020\(Nichols\).pdf](https://www.ihs.gov/california/tasks/sites/default/assets/File/GPRA/BP2011_HealthyPeople2020(Nichols).pdf)
4. Healthy People 2030 Objectives. <https://health.gov/healthypeople/objectives-and-data/browse-objectives/vaccination>



## **Appendix A: Developing an Area Influenza Plan**

Each Area should proactively develop an annual Area influenza plan. The Area influenza plan should provide background on the current status of influenza vaccine coverage among facilities in the Area, identify barriers and issues related to increasing influenza vaccination, provide guidance to facilities on implementing strategies to increase influenza vaccine coverage, and identify measures for monitoring progress in increasing influenza vaccination uptake.

### **Background**

- Current influenza vaccine coverage rates among patients and employees for the Area
- Difference between current coverage and HP 2030 goal
- Current barriers to increasing vaccination

### **Action Steps**

- **Area level support activities**
  - Consider developing Cascading Performance Element for facilities to include in PMAPs (see example Appendix B)
  - Identify measurable outcomes to monitor progress in increasing influenza vaccine coverage
  - Identify data needed
  - Support facilities in developing and implementing strategies to increase influenza vaccination
  - Identify specific strategies to increase coverage (see Appendix C)
  - Develop Facility Driver diagram (see Appendix D)
  - Identify process and outcome measures to monitor success of implementing strategies

## **Appendix B: Best Practice Strategies**

### **To Increase Access to Vaccine**

- Implement standing orders to facilitate vaccination at every opportunity
- Ensure safe-practices and COVID-19 prevention strategies (e.g. PPE, social distancing)<sup>9</sup>
- Increase opportunities for vaccination
  - Pharmacy based immunization
  - Walk in immunization clinics
  - After hours clinics
  - Community –based clinics
  - Mobile vaccine carts (employees)
  - Mass vaccination events, including curbside or drive-thru clinics
  - Alternative vaccination sites

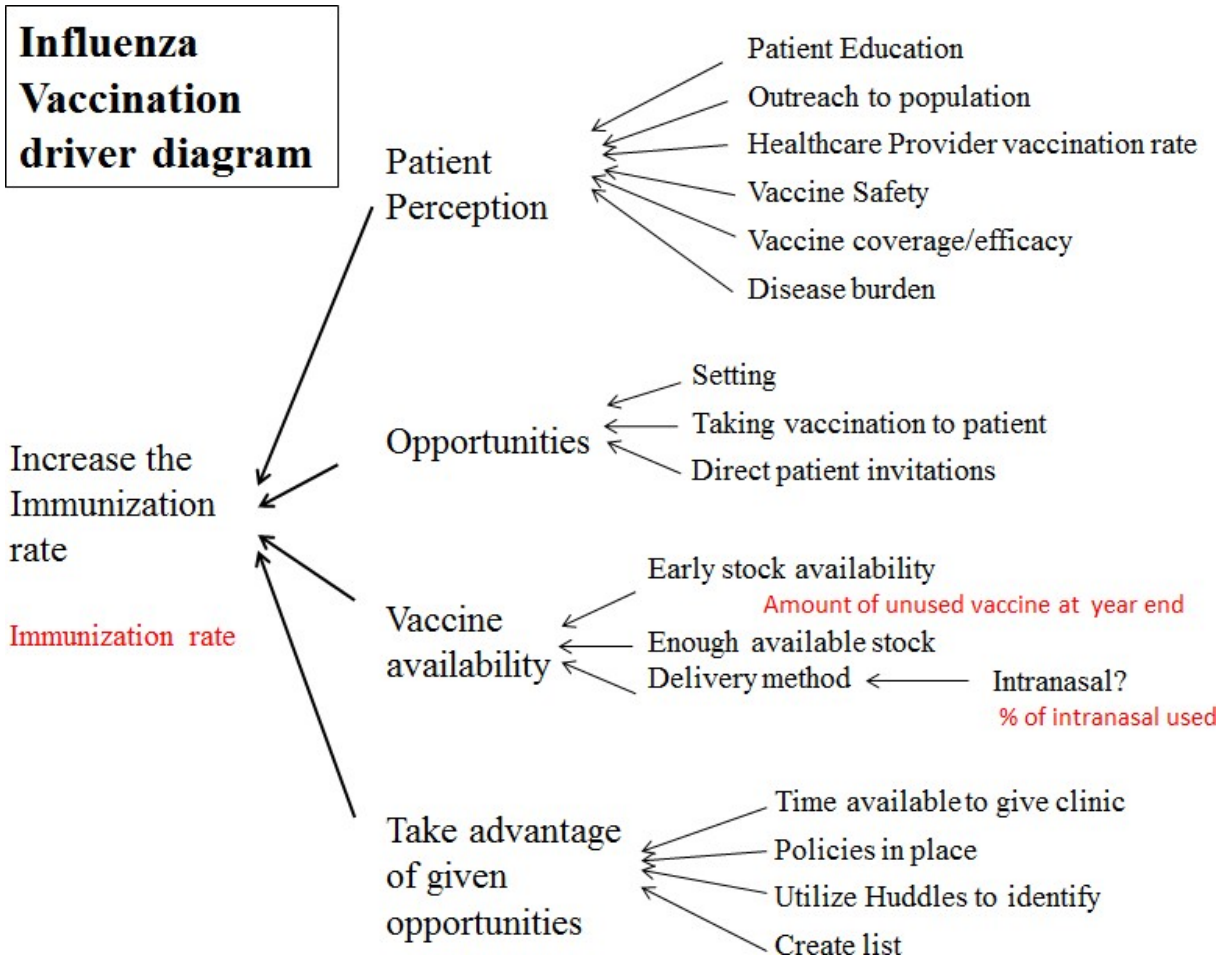
### **To Increase Provider Awareness**

- Influenza education sessions – providers, PHNs, CHRs
- Data feedback – share information re: immunization vaccine coverage on an on-going basis throughout flu season

### **To Increase Community Acceptance**

- Provide education and materials to CHRs
- Reach out to local tribal radio stations to air radio PSAs re: flu
- Provide information in tribal newspapers re: influenza

Appendix C: Examples of Influenza Vaccination Driver Diagrams:



**Appendix C: Examples of Influenza Vaccination Driver Diagrams continued:**

Strategy (or Change Concept)	Primary Drivers	Secondary Drivers	Constraints
<p><b>Start</b> vaccinating <b>sooner</b></p>	<p>Clinic Readiness</p>	<ul style="list-style-type: none"> <li>• Pre-scheduled walk-in flu vaccine clinics</li> <li>• Pharmacists, Medical Assistants (MAs), and nurses trained and ready to vaccinate</li> <li>• All necessary supplies in place prior to arrival of vaccines (gloves, syringes, needles, alcohol wipes, band-aids, VIS, etc)</li> </ul>	<p>Highly dependent on timely vaccine supply delivery to clinic</p>
	<p>Community Readiness</p>	<ul style="list-style-type: none"> <li>• Pre-placed articles/ads in local newspapers about when flu vaccines will be given, benefits of flu vaccines, etc</li> <li>• Messaging throughout the community- posters, brochures, PSAs, video-messages, Social Media, radio, etc</li> <li>• Community-based vaccine days/sites pre-planned</li> </ul>	

Strategy (or Change Concept)	Primary Drivers	Secondary Drivers	Constraints
<p><b>Sustain</b> period of maximum <b>vaccination</b> rate <b>longer</b></p>	<p>Clinic Capability</p>	<ul style="list-style-type: none"> <li>• Ensure adequate staffing throughout the months of October/November</li> <li>• Extend/maintain flu vaccine walk-in clinics</li> <li>• Ensure adequate supplies to last for the duration of the extended flu vaccine campaign</li> </ul>	<ul style="list-style-type: none"> <li>• Dependent on a sustained demand from patients/community</li> <li>• May require additional efforts to vaccinate outside of the clinic</li> </ul>
	<p>Community Demand or Acceptance</p>	<ul style="list-style-type: none"> <li>• May need to develop new messaging strategies or repeat messages multiple times</li> <li>• Anticipate and provide information about the benefits of flu vaccine specific to any issues that develop (vaccine mismatch, adverse events, reported “severity” of the circulating flu strain, special populations.</li> </ul>	<ul style="list-style-type: none"> <li>• Mistrust of IHS/CDC</li> <li>• Negative media messages</li> </ul>

Strategy (or Change Concept)	Primary Drivers	Secondary Drivers	Constraints
<p><b>Increase</b> weekly number of vaccines given per week by some percent (e.g., <b>by 25%</b>)</p>	<p>Clinical systems change to increase capacity</p>	<ul style="list-style-type: none"> <li>• Remove barriers to getting flu vaccine (standing orders, walk-in clinics, offering universally to all patients, etc)</li> <li>• Provide multiple types of vaccine (live attenuated, preservative free, high-dose, quadrivalent, etc)</li> <li>• Providers educated and committed to providing flu vaccine to all patients</li> <li>• Providers and staff get vaccinated</li> <li>• Create new vaccination venues- evening/weekend clinics, community-based clinics, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• System must increase its daily capacity to give vaccines (staff must work harder than previous years)</li> <li>• Staff reluctance to promote vaccine or reluctance to receive their own flu vaccine</li> <li>• Insufficient staff to provide evening/weekend vaccination clinics</li> </ul>
	<p>Community Demand or Acceptance</p>	<ul style="list-style-type: none"> <li>• May need to develop new messaging strategies or repeat messages multiple times</li> <li>• Anticipate and provide information about the benefits of flu vaccine specific to any issues that develop (vaccine mismatch, adverse events, reported “severity” of the circulating flu strain, special populations.</li> </ul>	<ul style="list-style-type: none"> <li>• Mistrust of IHS/CDC</li> <li>• Negative media messages</li> </ul>

## Appendix D: Influenza Resources

1. **Centers for Disease Control and Prevention Flu website** – includes surveillance data, fact sheets for providers and patients about influenza and influenza vaccine, and free printed, video and radio resources - [www.cdc.gov/flu](http://www.cdc.gov/flu)
2. **Influenza Manual from the Veterans' Administration** - includes guidance for facilities re: setting up a comprehensive staff and patient influenza vaccination programs: <http://www.publichealth.va.gov/docs/flu/va-flu-manual.pdf#>
3. **Indian Health Service Flu website** – links to IHS surveillance data and educational resources for American Indian and Alaska Native Communities – [www.ihs.gov/epi](http://www.ihs.gov/epi)
4. **National Foundation of Infectious Disease** - Information for Healthcare Professionals – <http://www.nfid.org/influenza>
5. **Personal Testimonies** - Stories about families affected by flu - <http://www.familiesfightingflu.org/>  
<http://www.vaccineinformation.org/influenza/>
6. **Influenza Vaccine and Antiviral Ordering** - IHS National Supply Service Center <http://www.ihs.gov/NSSC/>
7. **CDC Guidance for Planning Vaccination Clinics Held at Satellite, Temporary, or Off-Site Locations** – includes precautions and considerations for vaccination clinics held during SARS-CoV-2 circulation - <https://www.cdc.gov/vaccines/hcp/admin/mass-clinic-activities/index.html>
8. **CDC Vaccination Guidance During a Pandemic** – includes a collection of federal resources for vaccine planning during a pandemic - <https://www.cdc.gov/vaccines/pandemic-guidance/index.html>
9. **COVID-19 Protect Yourself and Others** – includes links on protection guidance against COVID-19 - <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/index.html>