



Children's Hospital Colorado

General anesthesia is a “teachable moment” for influenza vaccination in pediatric patients: demonstration of a sustainable process change

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Background and Problem Statement:

- Flu vaccine recommended for six months of age and older during all healthcare seeking opportunities.
- Perioperative period is an underutilized setting to increase influenza vaccination in children.
- General anesthesia represents a "teachable moment", to “motivate individuals to spontaneously adopt risk-reducing health behaviors”, like smoking cessation or vaccination.
- Vaccination under general anesthesia provides several benefits, including patient comfort, expedited care, and leveraging existing workflows and processes which we also believed would increase vaccination rates.
- Our team began actively offering flu vaccines to all patients during 2020-21 flu season, increasing our perioperative vaccinations by ~4000% without increase in post-op ED visits, post-op fever, or other reported complications.

Project AIM (goal statement):

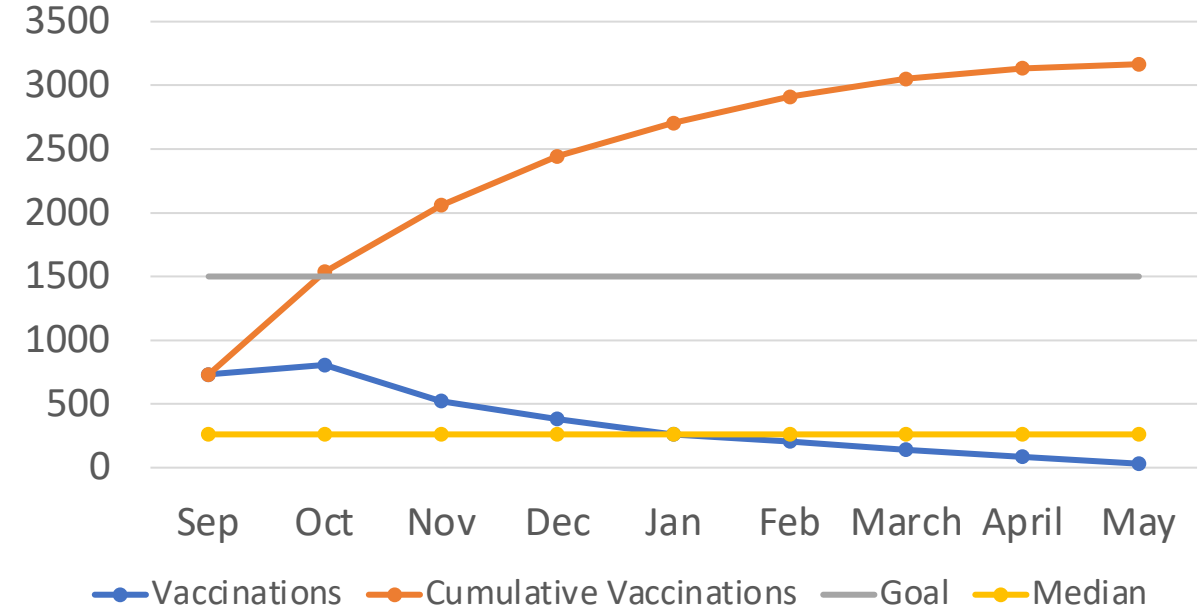
Our goal for the 2021-22 influenza vaccination season (September 1, 2021 – June 1, 2022) was to increase perioperative vaccinations from 1300 to 1500.

Key Drivers and Interventions:

- Actively offer to all patients undergoing elective general anesthesia: BPA fires for nurse upon patient arrival
- Electronic decision support: BPA provides inclusion and exclusion criteria
- Easy ordering process: admit nurse may utilize standing order
- Efficient medication preparation: Pharmacy has doses prepared that are sent to admit upon order placement
- Efficient administration: Medication placed on chart signals circulating nurse and anesthesia to administer
- Efficient documentation: Circulating nurse documents
- Communication with patient/family and PCP: Information automatically populates into After Visit Summary and MyChart

Project Results / Performance:

Perioperative Vaccinations 2021-2022



Challenges and Barriers:

- Parent/patient refusal
- Busy workflow in admit on day of surgery/procedure
- Surgeon/anesthesiologist concern about safety, efficacy and time
- Vaccine availability and speed of dispensing from time of ordering
- Documentation for family and PCP
- Ensuring healthcare equity for families whose primary language is not English

Lessons Learned and Next Steps:

- Important to start at the beginning of influenza season; expected decrease per month as season progresses
- Need to better understand reasons for refusal
- Multidisciplinary collaboration is critical to success
- Engaging key stakeholders is critical for buy-in

Key Measures	Definitions	Baseline	Goal	Progress
Outcome	Number of vaccines given under anesthesia	1271	1500	3166
Process	Percent of time influenza vaccine given when ordered	91.4%	95%	86.4%
Process	Number of anesthetized patients	22,724		26,946
Balancing	QSRS reports (vaccine side effects, administration errors)	0	0	1