

an Interprofessional, Medical Assistant-Focused Quality Improvement Project to Increase Influenza Vaccination Rates in an Urban Academic Primary Care Clinic

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BACKGROUND

- Influenza vaccination is recommended for all persons ≥ 6 months without contraindication¹
- Our preliminary institutional data review from (n=5341) indicated a influenza vaccination rate of 38% but 42% of patients had no data

OBJECTIVE

- To increase influenza vaccination rates in a racially diverse, academic primary care primary care practice in the latter half of the 2018-2019 influenza season through standardization of practice and enhanced data capture

METHODS

- Sample comprised of patients at a single academic, teaching practice in Wilmington, Delaware, serving over 8,600 patients
- Sequential chart review of serial clinic visits was performed monthly from November 2018 to February 2019
- Target weekly sample was $\geq 10\%$ of weekly census (58/575)
- Primary outcome was vaccination status as documented in the electronic medical record (EMR)
- Secondary measures included date and source of vaccination, reasons for refusal, and rates of using vaccine registry
- Plan-Do-Check-Act (PDSA) model of quality improvement was implemented

PDSA Cycle 1 – December 2018

- MA champion to engage with peers
- Review protocols and best practices toward standardization of process and documentation. CDC vaccination flyers placed in care areas and patient waiting areas

PDSA Cycle 2 – January 2019

- Re-engagement booster plus feedback with clinic vaccination data from December 2018
- Encouraged use of immunization registry (DelVax) integrated into EMR in December 2018 to assist with documentation
- Competition between MA teams for highest rate of vaccination, completeness of documentation, and DelVax utilization

Post-intervention survey was administered to MAs — March 2019

DISCLOSURES: This project was in part supported by Sustainable Healthy Communities, LLC

PLAN

- Large data gap – 40% patients unknown
- Late start in the season
- Medical assistant focused

DO

- Peer-driven engagement
- Standardization of process and documentation

ACT

- Booster through re-engagement
- Incentives via competition
- Objective feedback

STUDY

- Sequential chart review in December

Figure 1. Overview of PDSA components

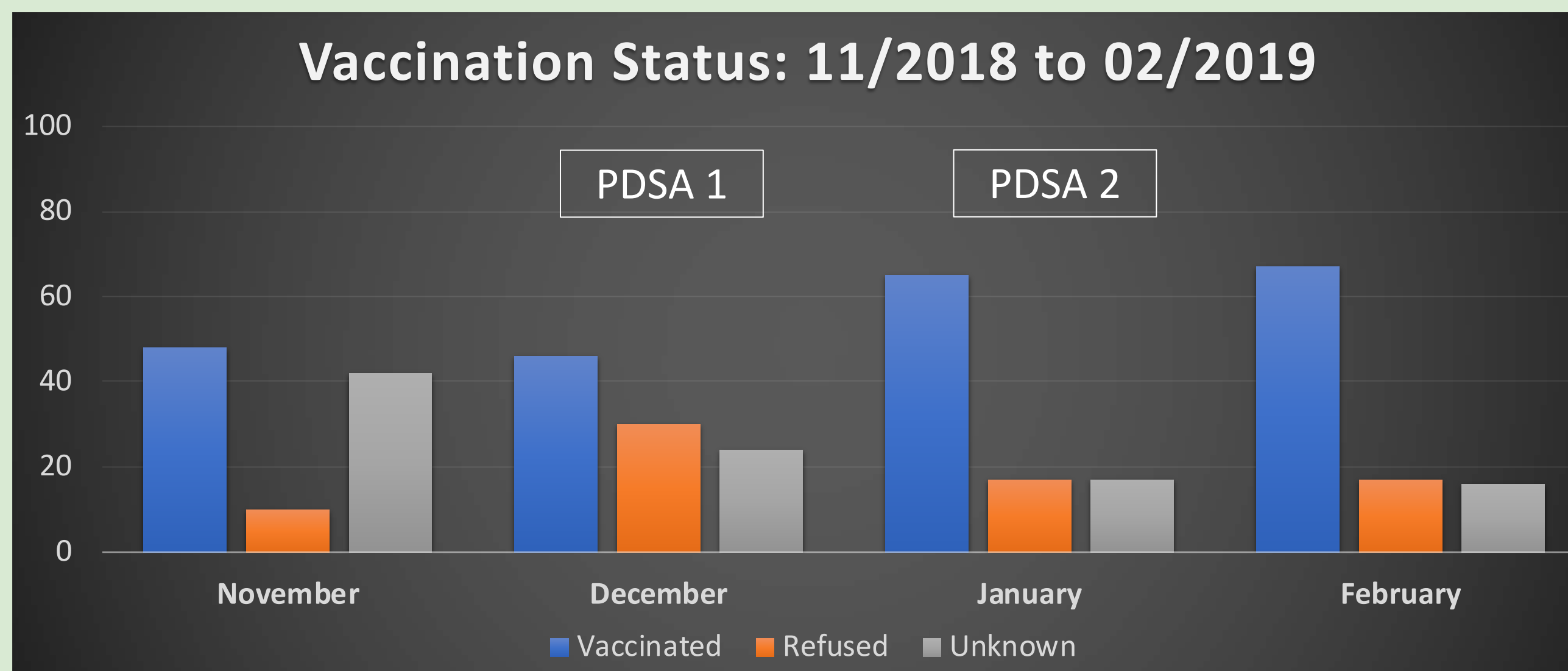


Figure 2. Vaccination status of patients by month

	Nov n = 71	Dec n = 138	Jan n = 185	Feb n = 63
Age (y)	58.70	54.84	53.69	52.71
≥ 65 ; n (%)	26 (37)	37 (27)	46 (25)	15 (24)
Female; n (%)	39 (55)	88 (64)	110 (59)	31 (49)
AA; n (%)	51 (72)	98 (71)	115 (62)	34 (54)

Table 1. Demographics; AA = African American or other

	Nov	Dec	Jan	Feb
Vaccinated; n (%)	34 (48)	63 (46)	121 (65)	42 (67)
Refused; n (%)	7 (10)	41 (30)	32 (17)	11 (17)
Unknown; n (%)	30 (42)	34 (24)	32 (17)	10 (16)

Table 2. Vaccination status by month

	Nov n=71	Dec n=138	Jan n=185	Feb n=63
DOV	16	18	32	8
Previously Eligible	18	45	89	34
(total - previous)	53	93	96	29
DOV%	0.30	0.19	0.33	0.28

Table 3. Vaccination on date of visit (DOV) vs previously. Eligible for vaccination = total patients minus previously vaccinated.
DOV% = Eligible vaccination rate = DOV/Eligible

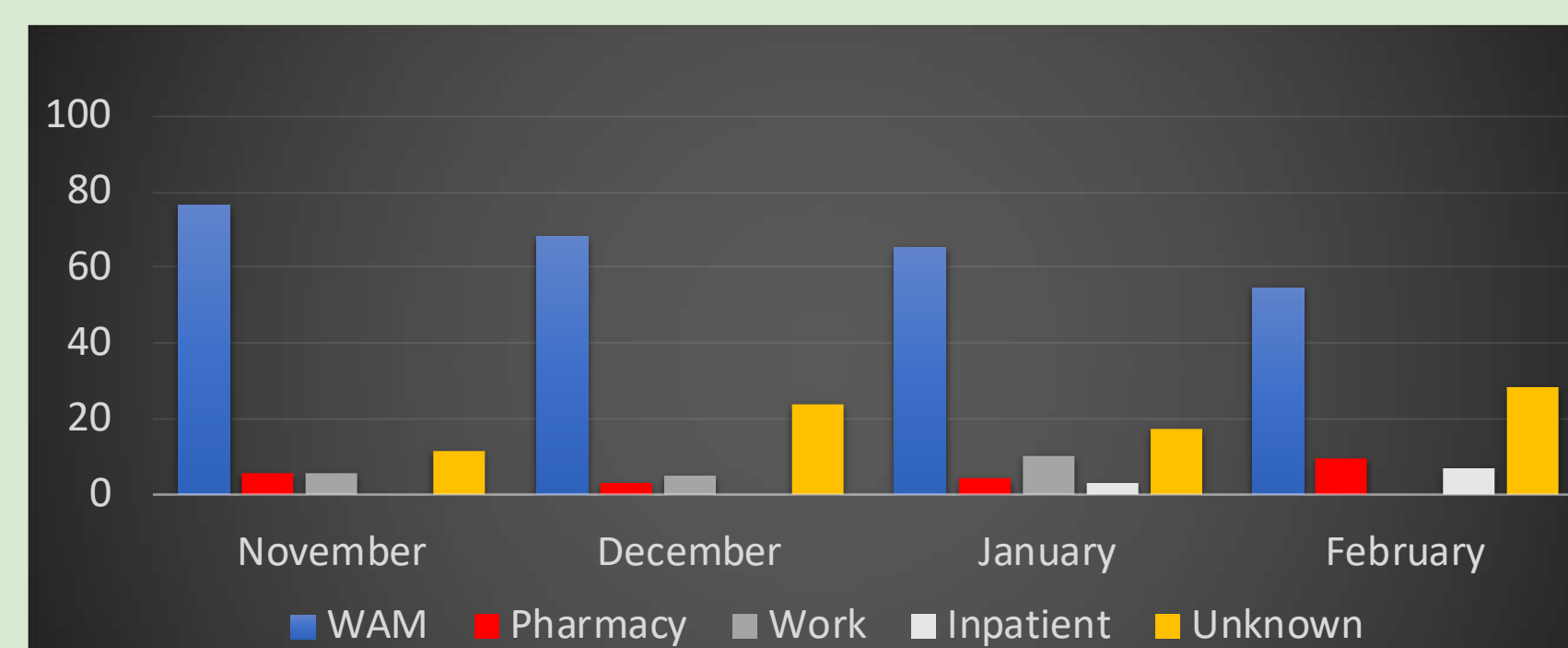


Figure 3. Source of vaccinations by % in 11/2018; WAM = Wilmington Adult Medicine Clinic. Unknown includes Delaware Vaccine Registry

RESULTS

- 458 patient visits were reviewed from November 2018 to February 2019
- Influenza vaccination rates increased from 48% to 65%
- Data capture of vaccination status increased from 60% to 85%
- The majority of vaccinations were given in the clinic (55 – 75% of vaccinations monthly)
- Most common reasons for refusal were "I don't want it" followed by "It makes me sick" and "Unspecified refusal"
- As the season progressed, the proportion of vaccinations on day of visit decreased but vaccination rate of eligible patients (total minus previously vaccinated), increased from 30% to 33%
- All MAs surveyed (7/7) responded they changed their intake and vaccination documentation practice as a result of the project. Nearly all (6/7) strongly agreed that objective feedback motivated them to support the project

DISCUSSION AND LIMITATIONS

- Provider/physician-directed interventions, eg reminders have shown to increase vaccination rates but may be complicated by provider reports of alert fatigue²
- In a study of active choice in primary care practices, focusing on MAs alone showed higher rates of vaccination versus combined MA/Provider interventions³
- Limitations
 - Manual retrospective chart review
 - Integration of Delaware Immunization Registry (DelVAX) into the EMR during intervention period (12/2018) was an unexpected confounder. The investigators viewed DelVAX an opportunity for to enhance data capture and thus included in PDSA2
 - Increase in vaccination rate may be in part due to integration of immunization registry but MAs were likewise encouraged to use it

CONCLUSION

- We improved our vaccination data capture rate by 25% through MA focused interventions utilizing peer-driven engagement and objective feedback

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