



**AIRA**  
AMERICAN IMMUNIZATION  
REGISTRY ASSOCIATION

# INFORMATION REQUEST

Topic: Missing Patient-Reported Doses

**Request Date:** June 13, 2022

**Information Requested:**

The Colorado Department of Public Health and the Environment is requesting feedback from other jurisdictions on any vaccine scheduling and administration solutions that were adopted during the COVID-19 vaccination response.

- What solution did you implement for vaccine scheduling and vaccine administration?
- What did you like about this solution?
- What limitations did you experience with this solution?
- Any additional feedback.

**Requesting Member:** Kim Gulliver

**Responding Member(s):** Amanda Lusk (AZ), David Juen (Chicago), Stephen White (SC), Bridget Ahrens (VT),

**Results:**

Note: AIRA recognizes that our members and partners often create solutions or provide services that our members and partners may be interested in. We invite entities to join AIRA with the understanding that AIRA must maintain a neutral stance with regards to promoting specific products and services. AIRA does not endorse or imply any endorsement of any member or partner or their products and/or services.

**AZ:**

- What solution did you implement for vaccine scheduling and vaccine administration?
  - The Arizona Department of Health Services (ADHS) created and implemented the Vaccine Management System (VMS) and our user



guides for the system can be found [here](#).

## Vaccine Management Help Desk

Vaccine Management System Helpdesk Support is

- [Organization & Site Admin Guide](#)
  - [Clinician User Guide](#)
  - [Patient Portal User Guide](#)
  - [Clinic Staff User Guide](#)
- This solution was built on the Google platform.
  - What did you like about this solution?
    - The VMS offered counties, tribes, and our health partners a scheduling system that was directly linked to our immunization state registry - Arizona Immunization Information System (ASIIS).
    - The VMS was in place and critical to implementing State PODs. The VMS also enabled community partners that didn't have electronic health records to vaccinate.
    - We had the ability to add features and change questions as the pandemic progressed to account for the new info or changes to vaccines.
  - The following were lessons learned:
    - Ensure to have all parties needed for the implementation of the VMS included in the early planning stages. This will ensure that required fields get covered by all programs and added to the system.
    - Call center support was needed to ensure individuals that were not technologically savvy or lacked technology resources could access the registration site. Initially, ADHS hosted a vaccine call center and then shifted it to a contracted vendor.
      - This is an important component to ensure accessibility to registration. Call Center staff also recommended ensuring a block of appointments are set aside/dedicated to the call center, as they were competing for the same appointments as the public.
    - Add a "reasonable request for accommodations" field to capture access and functional needs considerations.
    - Strive for quality data upfront. Make a concerted effort to ensure the record information is correct when entered. Consider including a field to confirm the vaccine recipient verified the information.
      - An incredible amount of time was spent afterward reconciling (volunteer user error, duplicate appointments, appointments with spouse listed, etc.).



- Arizona ran a 24/7 POD and the VMS system was not built with 24/7 operations in mind. When updates or changes had to be made, there was no downtime allotted for maintenance.
  - Needed a window to have reasonable downtime.
- Adding report and summary methods to the system for providers/PODS to see how many appointments are open/appointments for the day/appointments done for the day, etc. This was added later but would have been useful from the beginning.

## **Chicago:**

- What solution did you implement for vaccine scheduling and vaccine administration?
  - We implemented a home grown solution using Salesforce and a development team. It took 9 months for a Minimal Viable Product. And we are still working out the kinks on our production environment.
- What did you like about this solution?
  - Were able to customize the solution down to very granular needs for our Immunization program and our mass vaccination and direct services efforts. We were able to accommodate PODs, mobile carevans, and regular brick and mortar clinics simultaneously.
- What limitations did you experience with this solution?
  - IT resources and involvement. IT security and HIPAA regulations. Building a software from scratch is much more time consuming than getting an off the shelf product. Off the shelf products have been tested much more extensively than a home grown product.
- Any additional feedback.
  - Price tag was very hefty for Salesforce and development through MTX. We have ongoing service and license charges.
  - Either way they can make an appointment here if they wish to see the patient experience <https://getvaxchi.chicago.gov>

## **SC:**

What solution did you implement for vaccine scheduling and vaccine administration?

- We used VAMS to start our COVID vaccine rollout. We ended up getting another solution called CVAS which was a system brought from Mississippi because it didn't require an email like VAMS did in the beginning. However, we are about to sunset CVAS very soon because it is not sustainable.



What did you like about this solution?

- We still use VAMS today for COVID vaccine ordering and some providers do continue to use VAMS for vaccine scheduling. Deloitte is willing to listen and look for solutions to any challenges we have. VAMS is now able to export a file which can then be easily uploaded to VTrckS. The vendor continuously sends out minutes and updates to their system.

What limitations did you experience with this solution?

- It was very restrictive in late 2020, due to needing to have an email in order to create and appointment. However, it has come and extremely long way since the early days of VAMS and an email is no longer needed.

Any additional feedback.

- It is an overall good product with a development team which is willing to listen and make adjustments as needed. It also doesn't have a fee, so it works for us.

**VT:**

Vermont chose to use VAMS software for vaccine scheduling and reporting data to our IIS.

I can only speak to the use of VAMS from the perspective of the IIS – clearly there was a need for scheduling that was beyond the scope of what our IIS was able to do.

That said, we experienced some drawbacks and have some concerns.

In my view, the biggest challenge was that the VAMS system meant the public was creating their own records including names and addresses. We already had a robust system for patient matching, so the addresses were the bigger problem. Incoming addresses were so bad (misspelled town names, town/zip concordance) that we had to build a completely new tool -- that we used in conjunction with Smarty Streets—to correct them prior to load. Nevertheless, the experience clearly impacted on the quality of our data in a significant way.

There were some little hiccups early on – like an inability to record Canadian addresses (we are on the border with Canada and had a number of Canadian health care workers). Bigger issue was that VAMS was set up to report first to the data clearinghouse and then to the IIS – so reporting was a bit slower for the sites using VAMS.



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In my opinion, any scheduling tool should have consistency checks and autofill features to help maintain quality. In our IIS, entering a zip code will pre-select a town (or set of towns) for instance - which will save a lot of cleaning later. Even a town like Barre VT - 5 letters - was literally misspelled more than two dozen ways. I'd like to see something like drivers license scanning or some other identity confirmation too.

The IIS community has already solved a lot of problems with data, and I'd like to see some of our lessons learned make the larger world a better, more smoothly running place.