Vaccines on a Shoestring: Adult Immunization Program Implementation in Minnesota

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ABSTRACT

Vaccine purchases for Minnesota's Uninsured and Underinsured Adult Vaccine (UUAV) program are supported by a limited amount of federal and state funds. These funds are not sufficient to meet the needs of all eligible adults in MN, especially when factoring in expensive products like shingles, RSV, and COVID-19 vaccines. To ensure equitable access to UUAV vaccine across the state and effectively use our limited budget, we implemented an allocation and redistribution process in October 2023. We collected a needs assessment survey, reviewed past adult annual reports, and assigned enrolled sites a budget allocation for the year. Each quarter, we reviewed ordering data by site and redistributed a proportion of under-utilized budget allocations to high-utilization sites throughout the fiscal year. As we look to a future with potentially even more limited federal funding and without state funding, we hope we can continue to improve on this process to make the best use of our budget.

Background

Vaccine purchases for Minnesota's Uninsured and Underinsured Adult Vaccine (UUAV) program are supported by a limited amount of federal and state funds.

Federal 317 funding has remained flat despite the addition of new, expensive products like shingles, RSV, and COVID-19 vaccines. From 2014-2024, the cost of purchasing every recommended ACIP adult vaccine dose increased 158.55%, and Section 317 funding only increased 11.6%.

These funds are not sufficient to meet the needs of all eligible adults in MN, especially when factoring in newer, more expensive vaccines.

Without controls on ordering, some sites may order more vaccine than they need. This could exhaust our budget and leave other sites without access to UUAV vaccines. This inequitable distribution of UUAV vaccines would create gaps in access throughout the state, making more Minnesotans vulnerable to vaccine preventable diseases.

Methods

The UUAV program initially implemented allocations at the dose-level when the program was established in 2011, and we revisited that idea to help us navigate the current funding limits.

Providers expressed a need for agency when deciding which vaccines to order. This led us to look toward a budget-based allocation system, rather than one based on a specific number of vaccine doses. Sites do not receive any money directly, but the budget allocation represents the value of the vaccines they can order.

We used REDCap to implement this process. Ideally, we would have used our Immunization Information System (IIS), but it did not have the necessary functionality.

The **total funds spent** field adds the total cost of all orders for the site.

The **percent of funds spent** field is used to send automated emails to sites notifying them of their spent and remaining allocations.

1. Data on historical 317 funds and comparison to vaccine prices taken from John McClure's 2024 NIC presentation, Section 317 Vaccine Purchase Funding: The Challenge of Keeping Pace with New Vaccines.

Figure 1. UUAV Allocation and Redistribution Process Timeline

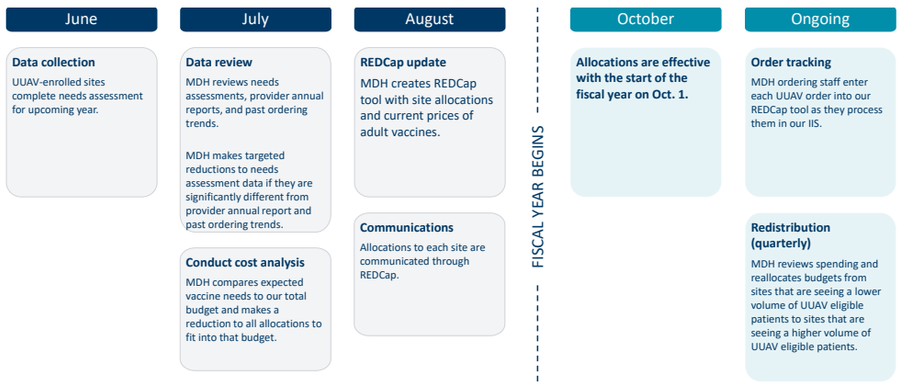


Figure 2. REDCap Site Information Instrument

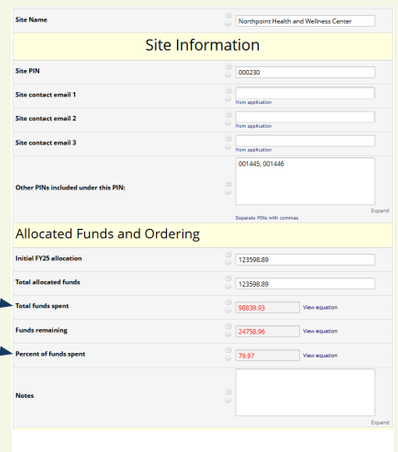
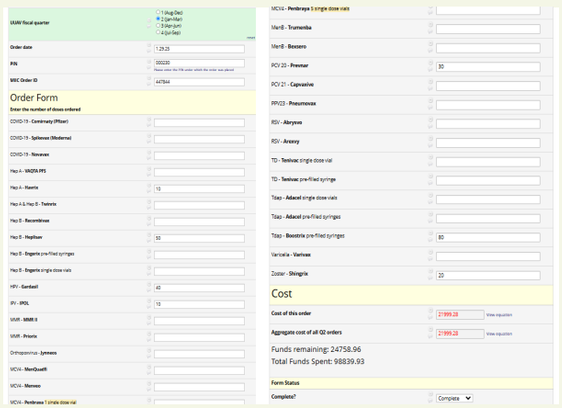


Figure 3. REDCap Order Tracking Form



This is a repeatable instrument. We create a new version with updated prices each quarter.

Results

Determining Allocations

We conducted a needs assessment survey to identify enrolled sites' needs for the coming year. We compared this to the past annual reports for each site to identify UUAV immunization volume and reduced vaccine estimates if there was a large discrepancy between anticipated need and past volume.

We conducted a cost analysis of the vaccine needs for all sites and reduced the allocations wholesale for all sites by a percentage to keep the total under the budget limit.

UUAV sites are given a "budget allocation." This is a dollar amount that corresponds to the vaccines they can order that year. They can use their budget allocation to order any vaccine type they need, as long as the cost of the order fits within their allocation.

When sites have spent 100% of their allocations, they may not order more UUAV vaccine until the next fiscal year or until they receive additional budget via redistribution, in which some of the funds allocated to sites with lower use rates are re-allocated to sites with higher use rates.

Tracking Allocations

For every UUAV order placed in our IIS, our team enters the order into a REDCap database that tracks the price of the products and the site's allocation. Each time an order is entered, the calculated fields update to show the new remaining balance for the site.

The REDCap project sends out automated emails to the site contacts when they spend 50%, 75%, 90% and 100% of their allocation.

Redistribution

Sites can't predict exactly what their needs will be each year; some sites will see more demand, and some will see less. We implemented a redistribution process to help manage this. Each quarter, we review ordering data by site and redistribute a proportion of under-used budget allocations to high-use sites throughout the fiscal year. We do this once more near the very end of the fiscal year to ensure no money is wasted.

Discussion

In the face of limited funding, it is challenging but important to provide adult program vaccines while balancing flexibility, transparency, and accountability for our providers.

Providers have reported that they prefer the flexibility of having an allocated budget amount rather than a prescribed list of allocated vaccine doses. This allows them to make ordering decisions in real time based on patient need throughout the year. This also helps relieve our staff from having to review and approve changes to the allocated doses, which we anticipated would be frequent and time-consuming.

The process requires more hands-on staff time, which may be an obstacle to implementation. It requires significant time to prepare each year in the spring and summer. It also takes time throughout the year; staff track all UUAV orders daily, and we analyze spending data for redistribution quarterly.

We relieved some staff burden by automating parts of the process with the tools available in REDCap, but there is opportunity to do more. Jurisdictions that have more functionality built into their IISs could implement this process directly. In the future, if we are able to modernize our IIS, we aim to include functionality to support this process.