

## APHA Presentation Opening Statement and Learning Objectives

### Opening Statement

Vaccines are one of our greatest public health achievements. A recent economic analysis indicated that vaccination of each U.S. birth cohort (through age 6, protecting against 13 diseases) with the current childhood immunization schedule **prevents approximately 42,000 deaths and 20 million cases of disease each year (1)**.

Given the public health significance of vaccines, how are recent technological improvements in CDC's vaccine supply chain supporting the ordering and distribution of vaccines to VFC providers?

### Learning Objectives

1. Define how electronic data interchange (EDI) is being used as an electronic hub to connect multiple delivery systems within the most complex vaccine supply chain in the United States.
  - **EDI is the hub that directs the flow of data between all of the systems/components involved in CDC's high-volume vaccine supply chain including grantees, providers, VTrckS, manufacturers, distribution centers, and CDC.**
2. Describe how technology is enabling the CDC to project national vaccine demand based on actual data to quickly provide tactical support in the case of a nationwide epidemic.
  - **VTrckS enables CDC to monitor and track ordering patterns and inventory levels at the health care provider level. This improved visibility allows CDC to quickly support allocation of vaccines with limited supply to grantees. In most cases, the vaccine would be re-allocated directly from the distributor to identified providers.**
3. Describe how technology is being used to support nationwide standardization of vaccine ordering and delivery while still providing individual state immunization agencies autonomy to manage local health providers.
  - **VTrckS offers grantees a secure system that provides improved visibility into order and shipment status and health care provider inventory. This integrated, real-time system enhances their ability to manage all aspects of the vaccine supply chain while reducing manual processes and data entry. The system evaluates vaccine orders against specific guidelines or business rules set by grantees (i.e., state, local, and territorial immunization programs/health departments) and the CDC, enabling grantees to either approve provider orders automatically or require additional review and approval.**
  - **In addition, there is increased accountability at the provider location with the requirement of submitted inventory on hand and returns data. VTrckS also provides functionality for grantees to develop and manage spend plans and vaccine formulary,**

**as well as the ability to place and manage vaccine orders to providers and to upload vaccine orders from their ExIS to VTrckS.**

4. Discuss why the demand for using external interfaces to link state immunization systems to VTrckS was much greater than ever anticipated and how that is affecting the support and roll out of VTrckS.
  - **VTrckS was piloted with 4 grantees, 2 VTrckS Direct and 2 ExIS. As a result of the pilot, grantees became more aware of the capabilities of the system. To date, 45 of the 64 grantees have declared their intent to submit data to VTrckS via an ExIS.**
  - **Before the pilot, a number of grantees already had or were planning to support online vaccine ordering and inventory tracking through their ExIS (e.g., an immunization registry). For these grantees, the ExIS solution made a lot of sense since it would eliminate the need for providers to learn another system to order vaccine and track inventory. Building on to their existing system also means that they can maintain a single point of contact with providers.**
  - **In addition to the above reasons, 32 immunization programs are receiving federal funding to create an interface between their ExIS and VTrckS.**

### **Closing Statement**

In closing, the technological improvements to CDC's vaccine tracking and delivery system discussed in this presentation highlight the importance of connecting all of the components involved in one of the largest vaccine supply chains in the United States. This new technology is modernizing and transforming the vaccine supply chain to effectively manage and distribute publicly-funded vaccine, facilitating the efficient ordering and delivery of needed vaccine to VFC providers located across the United States.

*"Health improves when Health is deemed a priority and the focus is on prevention rather than cure"* - Dr. Judith Mackay

1. Zhou F. Updated economic evaluation of the routine childhood immunization schedule in the United States. Presented at the 45th National Immunization Conference. Washington, DC; March 28--31, 2011.