

# Interfacing External Information Systems with VTrckS – Lessons Learned from the Pilot Test

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## Background

### VMBIP

CDC initiated VMBIP to increase efficiency of vaccine ordering and distribution. VTrckS, the ordering component of VMBIP, supports ordering and tracking of publicly funded vaccines. A total of 38 of 60 grantees who responded in a survey conducted by the CDC ISD in 2009 indicated that they support vaccine ordering through an External Information System (ExIS) now or plan to do so in the future.

Their goals in doing so are to:

- eliminate the need for providers and grantees to learn and use a new system
- leverage vaccine management and VFC reporting in VTrckS to avoid duplicate reporting mechanisms
- leverage communication strategies in VTrckS to support providers' own communication strategies

In a follow-up survey conducted in December 2010, a total of 45 of 63 grantees said they planned to or were considering using their ExIS for vaccine ordering.

### VTrckS

The first release of VTrckS became available on December 13, 2010. It provides an interface through which Grantees can upload provider demographic data, provider inventory, and vaccine orders exported from their ExIS. Grantees can also download shipping data for import into their ExIS.

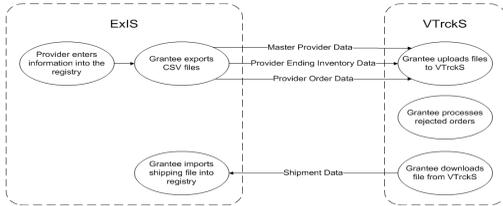


Figure 1. VTrckS ExIS interface.

## Project Description

Michigan and Washington grantees collaborated with the CDC to pilot test the interface between their respective ExIS and VTrckS. Pilot grantees engaged in the following activities to ensure a smooth transition to VTrckS.

- Participated actively on the CDC Grantee Advisory Committee and provided feedback prior to development
- Recommended ExIS file layouts
- Mapped the VTrckS specification files to VACMAN to identify gaps
- Conducted data cleanup
- Provided sample ExIS files for testing the VTrckS interface
- Shared lessons learned for inclusion in a readiness guide

## Lessons Learned

Grantees' ExISs successfully interfaced with VTrckS.

Washington and Michigan staffs uploaded 119 and 226 orders respectively on the first day. The volume of orders entered through the ExIS interface was helpful in testing both the ExIS interface and the overall system on a larger scale than was possible at the time with the non-ExIS pilot grantees.

Non-pilot grantees interested in implementing the VTrckS ExIS interface can learn from the experiences of the pilot. Lessons are noted below.

### Advanced preparation smoothed the transition.

Advanced preparation smoothed the transition to VTrckS.

- Provider training** – The impact of VTrckS go live on providers was low because they had already been trained on how to enter orders through the ExIS.
  - week-long train-the-trainer session in Atlanta
  - online training materials
  - on-the-job training upon go live
- Grantee training** – Grantee staff learned VTrckS processes.
  - grantee processes rejected orders
- Grantee workarounds** – Grantees had to devise workarounds for some of their business processes.
- Data conversion** – Historical provider data was formatted and cleansed to meet VTrckS standards.
- ExIS file testing** – CDC staff uploaded test data files to a non-production site and provided feedback on problems to correct before go live.
- Reporting needs** – Grantees planned how to meet their reporting needs either by using VTrckS reports or by devising workarounds.



Figure 2. Kyle Wildt of Michigan successfully uploads an ExIS file, December 13, 2011.

### Phasing in ExIS functions is possible.

- NDC** – The mechanism for exporting inventory data with NDC, lot number, and expiration date must be in place at go-live.
- Lot Number and Expiration Date** – Functionality for collecting and tracking actual lot numbers and expiration dates can be added later.
- Shipment data** – Grantees can continue to rely on daily shipment updates from McKesson until their ExIS is able to make use of Shipment data downloads from VTrckS.
- Reporting** – Reporting processes may continue to evolve after go live.

### Strategies are needed to synchronize systems.

Strategies need to be identified for keeping VTrckS and the ExIS in sync. Some strategies are:

- ExIS Order ID** – To maintain a unique ExIS Order ID, enter all orders through the ExIS, as opposed to entering some orders in the ExIS and some in VTrckS.
- NDC assignment** – Assign/verify the NDC as close to ExIS file export as possible.
- File upload** – Upload data files to VTrckS as soon as possible after they are exported from the ExIS.
- NDCs in short supply** – Explore ways to receive advanced notice of NDCs in short supply.

### Grantees' IT environments may need tuning.

- Response time** – IT support staff may need to modify system and network software settings (e.g., for logging and blocking software, spam filters) to avoid slow response times and poor connectivity.
- Security** – IT support staff may need to modify browser security settings for grantee staff to be able to access VTrckS.

### There is more work to be done.

- Reports** – There is an on-going and unmet need for timely access to vaccine ordering data for reporting.
- Additional interfaces** – There is still work to be done with VTrckS to ensure that grantee data and other program management needs are met. Suggested interfaces are for uploading returns, transfers, and wastage; and for downloading VTrckS marketing attributes.

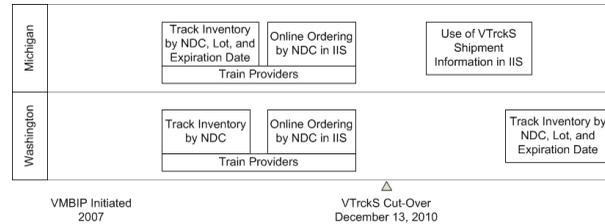


Figure 3. Michigan and Washington phased in ExIS functions. Note: Time in the figure is not to scale.

## Conclusions

When they were able to upload and process dozens of vaccine orders successfully on the first day of go-live, VTrckS ExIS grantees proved the viability of ordering vaccines through an external system. Lessons learned through the pilot will help future ExIS grantees to build on that success.

These lessons include:

- Advanced preparation smoothed the transition to VTrckS.
- Phasing in some ExIS functions is possible.
- Strategies need to be identified for synchronizing VTrckS and the ExIS.
- Grantees' IT environments may need tuning to ensure VTrckS access and acceptable performance.
- CDC will continue to work with grantees to improve VTrckS.

Support documents and training will be enhanced or developed based on specific lessons learned. Documents now available or in progress are:

- ExIS Readiness Guide*, a document in progress with a checklist for preparing for an ExIS interface implementation
- VTrckS ExIS Integration: File Specifications & Additional Information*, with added clarifications and examples
- How to Process ExIS Orders*, a document that describes business rules and procedures for addressing errors
- Understanding VTrckS ExIS Reports*, a document in progress that describes available reports and their uses

Additionally, a MIROW best practice document has been proposed to address enhancement needs specific to Immunization Information Systems.

## Contact for VTrckS ExIS

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