



# Adopting 2D Barcodes

## Information for Pharmacies

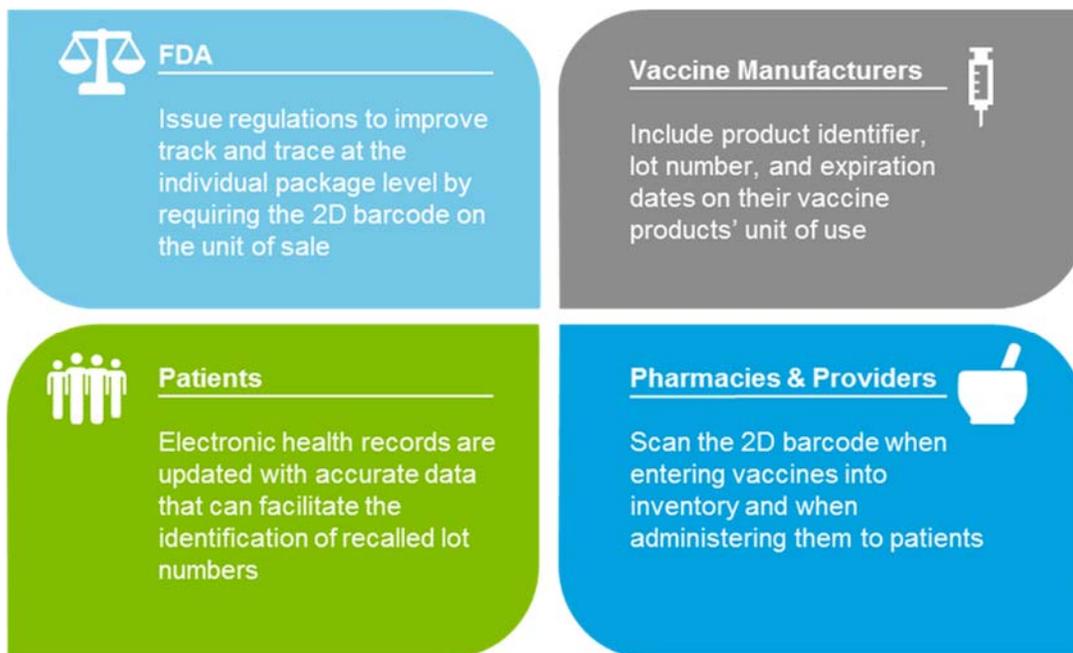
### Scan Products with 2D Barcodes

Two-dimensional (2D) barcodes are an important part of the United States' drug safety infrastructure. They facilitate the accurate tracking of product identifiers (ID) by the Food and Drug Administration (FDA) as well as help healthcare providers capture accurate and complete data about vaccine inventory and administration. Current guidance allows for a product ID, such as the National Drug Code (NDC), a lot number and an expiration date on 2D barcoded vaccine products.

While these same data are present on vaccine vial and syringe labels, these data are often captured manually into an electronic medical record (EMR) or Immunization Information System (IIS) by a provider at inventory and administration. 2D barcodes capture more data elements and occupy less space than a linear barcode while improving accuracy and completeness when the data within the barcode is captured by scanning.

### Industry Investment in 2D Barcoding

For the last several years, stakeholders across government, provider practice, and technology have worked together to promote the use of 2D barcode scanning. In 2011, the FDA issued guidance that opened the door for placing 2D barcodes on vaccine products, allowing manufacturers to replace linear barcodes with alternative symbols that capture product ID, expiration date, and lot number.



In 2013, the Drug Supply Chain Security Act (DSCSA) was introduced, which requires all manufacturers to affix 2D barcodes on vaccine units of sale in the next couple of years. This means that pharmacists will be able to scan these 2D barcodes to get all necessary information into inventory records. In addition, an increasing number of health care providers are investing in scanning technology and 2D barcode-compatible EMR systems, as well as taking the necessary steps to integrate the new technology into their daily workflow in anticipation of benefits in data quality and efficiency.



## Benefits for Pharmacies

Over the last four years, the Centers for Disease Control and Prevention (CDC) initiated two 2D Vaccine Barcode Pilot projects to assess the effect of the 2D barcodes on the completeness and accuracy of vaccination data collected during vaccine administration. Vaccine manufacturers, health information systems vendors, and pharmacies were recruited to participate. The overall findings of the pilot demonstrated that 2D barcode scanning was associated with an improvement in the accuracy and completeness of both lot number and expiration date in vaccine administration records. Additionally, providers reported positive user experiences with 2D barcode scanning to enter vaccine data into both inventory and administration records and as a result, are increasingly seeking this new functionality.

High volume products like flu injectable were observed to be scanned more frequently at pharmacies. In these pharmacies, it was observed that flu vaccines were administered in large quantities during a short time period, allowing for expedited handling by the pharmacy technician and greater utilization of 2D barcodes. These observations are a clear indication that 2D barcodes are becoming more prevalent, and will soon become an accepted mechanism by which data are entered into electronic systems.

## Improve Data Quality in Your Pharmacy

Pharmacies can use the 2D barcoded products and adjust software for 2D barcode functionality in order to improve data quality of immunization records. Pharmacies can look to improve data quality in their facilities by taking steps to incorporate 2D barcoding into their workflow and to support the continued adoption of 2D barcode scanning at the point of care. A Summary Report is available for reference and provides further detail on potential improvements in data quality. Below is a list of activities to promote the adoption of 2D barcodes.

- Request that pharmacy information system vendors continue to integrate scanning functions into their systems
- Obtain 2D barcode scanners and train staff to use them
- Develop a 2D barcode scanning protocol to include:
  - Staff training on the use of 2D barcode scanners
  - Regular testing to ensure that scanners are working properly (e.g., scan 2D barcode into a word processing document to validate output)
  - Support scanner configuration, troubleshooting and continuing education as needed
- Encourage scanning of 2D barcodes on vaccines and promote consistency of use among pharmacists



### Interested in learning more?

To find out more about how adopting 2D barcode functionality can benefit your organization, please scan the barcode above or visit the CDC's Two-Dimensional Vaccine Barcoding website at:  
<http://www.cdc.gov/vaccines/programs/iis/2d-vaccine-barcodes/>