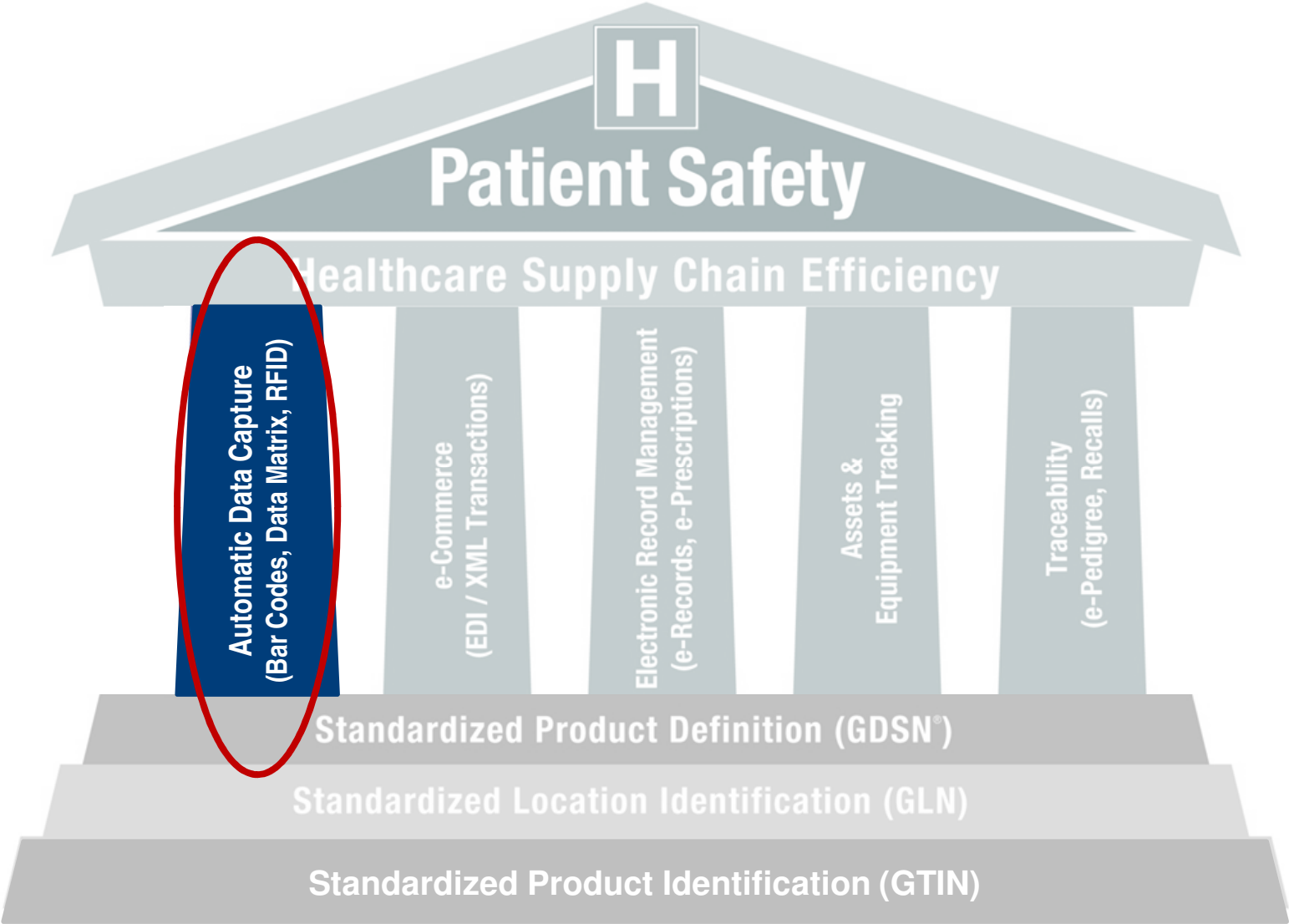


“Building Patient Safety”



Standardization → Interoperability



Bar Code Verification Data Capture & Reporting

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Office of Health Information
Chief Health Informatics Office





History of Bar Code Medication Administration

- **1994**
 - The Department of Veteran Affairs (VA) was one of the first health care organizations to develop Bar Code Medication Administration (BCMA) technology to improve patient safety
 - Piloted by field staff at the Topeka Veterans Affairs Medical Center
- **1999**
 - Roll out to all VA Medical Centers (60,000 beds)
- **2003**
 - 100% of all VA Medical Center in-patient wards document using BCMA
- **2009**
 - 1.3 Billion medications scanned since inception
 - 678,000 medications scanned each day





Bar Coding Challenges – A Look Back

- **Bar Code Quality Assurance**
 - Printed in house
 - Received from manufacturer/supplier
- **Absence of manufacturer bar codes on units of administration**
- **No universal bar code data carrier standardization for health care**
- **No contractual bar code quality standards communicated to manufacturers/packagegers**





VA Addresses Bar Code Quality

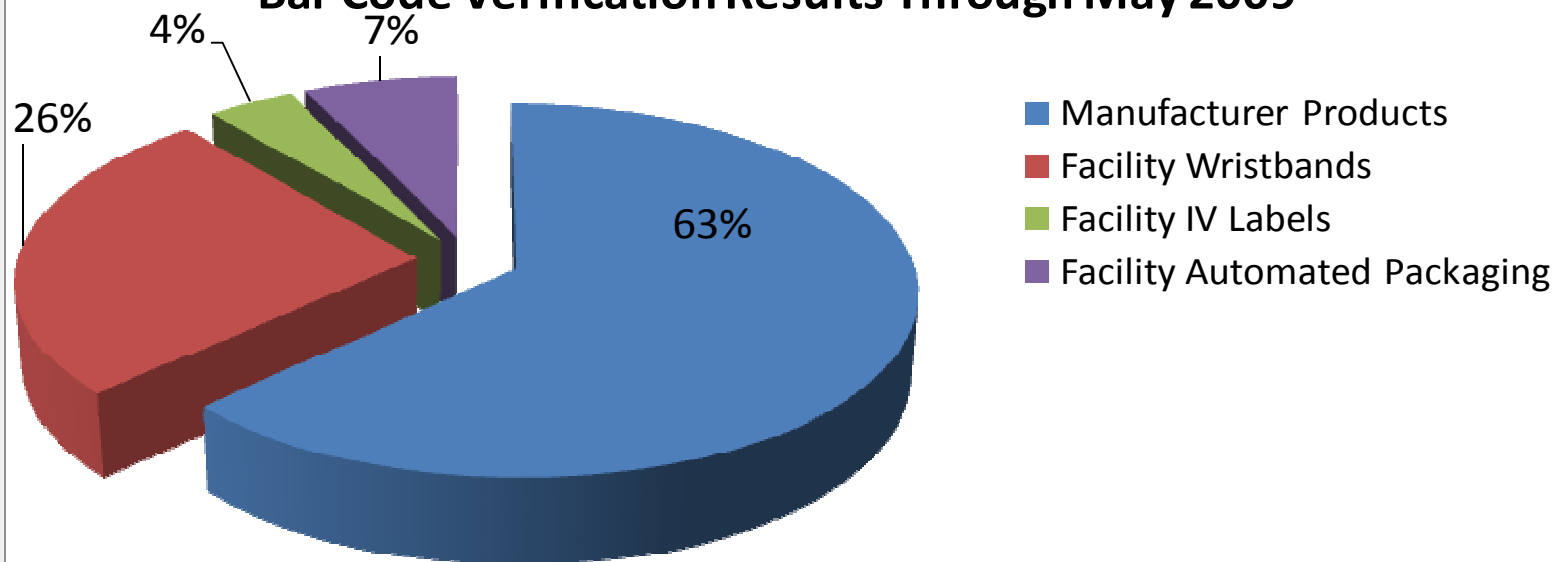
- **Sept 2004**
 - Developed “Closed Loop” bar code verification procedures
- **Oct 2004**
 - Established bar code verification labs
- **Mar 2005**
 - Bar Code Quality clause added to VA contract vehicles
- **May 2005**
 - Annual wristband verification testing conducted for all Veterans Health Administration (VHA) facilities
- **Feb 2006**
 - Bar Code Quality Directive distributed
- **Dec 2006**
 - All scanners, bar code printers, and bar code print media must meet minimum standards of the Bar Code Resource Office to be approved for purchase
- **Mar 2009**
 - Automated data capture of bar codes not scanning at the point of care





Closed Loop Verification Results

Bar Code Verification Results Through May 2009



Total verification tests = **604**

Different Manufacturers /Suppliers = **58**

Letters to suppliers & contracting authorities = **65**

Supplier products reported to the FDA through MedWatch = **3**





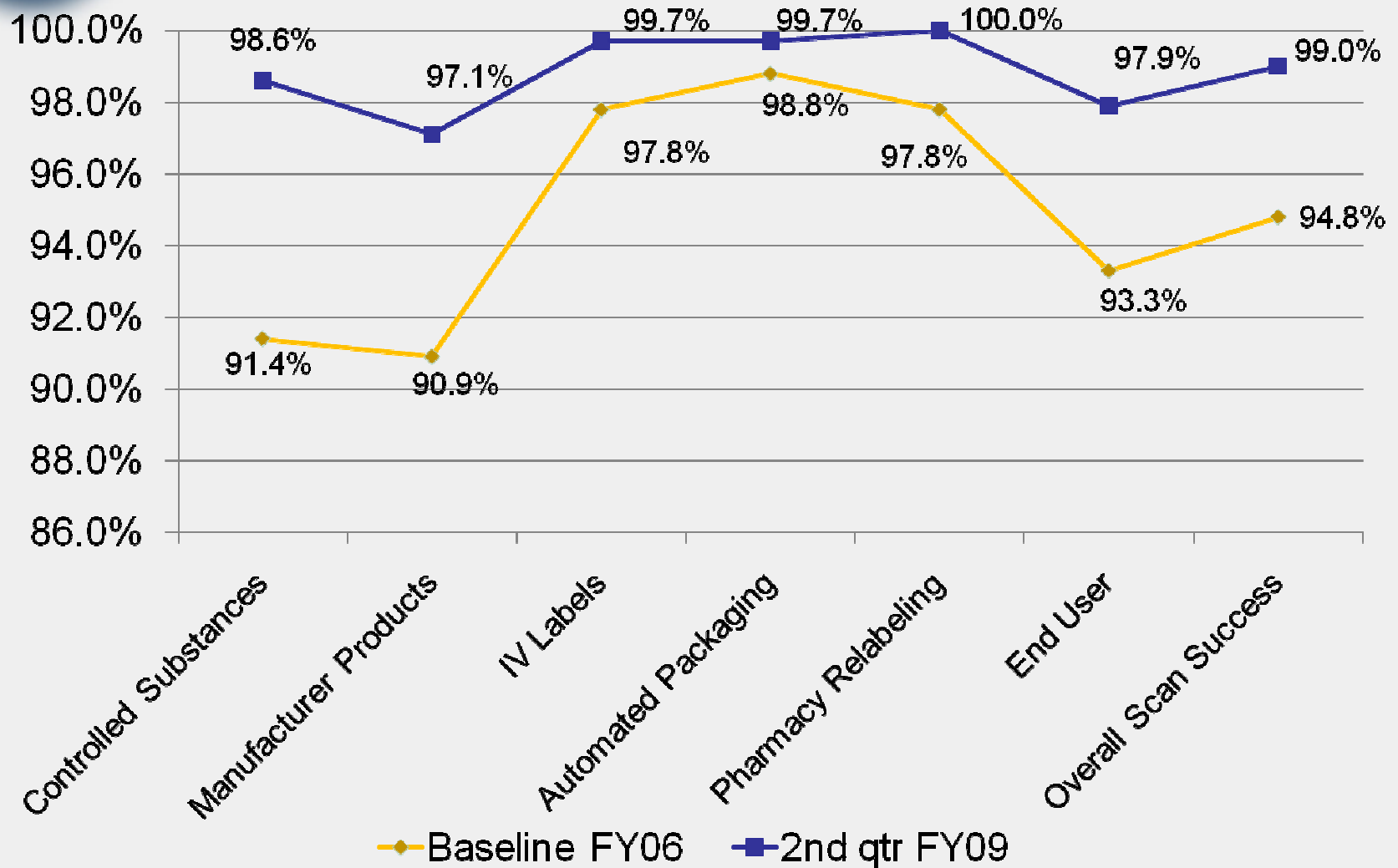
Bar Code Quality Directive – Performance Management

- Measure field ability to scan through direct observation
- Bar Code Quality Directive requires quarterly monitors for 6 areas:
 - Controlled Substances
 - Manufacturer Packaging
 - IV Labels
 - Automated Packaging
 - Pharmacy Re-labeling
 - End User
- To date >2.8 million bar code scans observed





Bar Code Quality Directive - Results





678,000 medications scanned per day

Performance Period	Overall Scan Success	Unsuccessful Scans / Day
FY06 Baseline	94.8%	35,256
YTD FY09	99.0%	6,780

- Approx. 162,000 manufacturer bar codes are scanned each day

Performance Period	Manufacturer Packaging	Unsuccessful Scans / Day
FY06 Baseline	90.9%	14,746
YTD FY09	97.1%	4,699

- Manufacturer packaging 42% of unsuccessful scans at FY06 Baseline
- Manufacturer packaging 69% of unsuccessful scans for YTD FY09





Next Steps

- **Automated data capture of scanner bypass – March 2009**
 - Identifies the most problematic products at the point of care
 - Identifies database irregularities in real time
 - Identifies substandard bar code quality products through filtering
- **Global Trade Item Numbers (GTIN): standardize product identification**
- **Global Data Synchronization Network (GDSN): create a central data source that feeds all information technology systems**

