

The Role of Immunization Registries in Emergency Preparedness and Response Infrastructure

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AMERICAN
IMMUNIZATION
REGISTRY
ASSOCIATION

HEALTH INFORMATION FOR A NEW ERA

What are Immunization Registries?

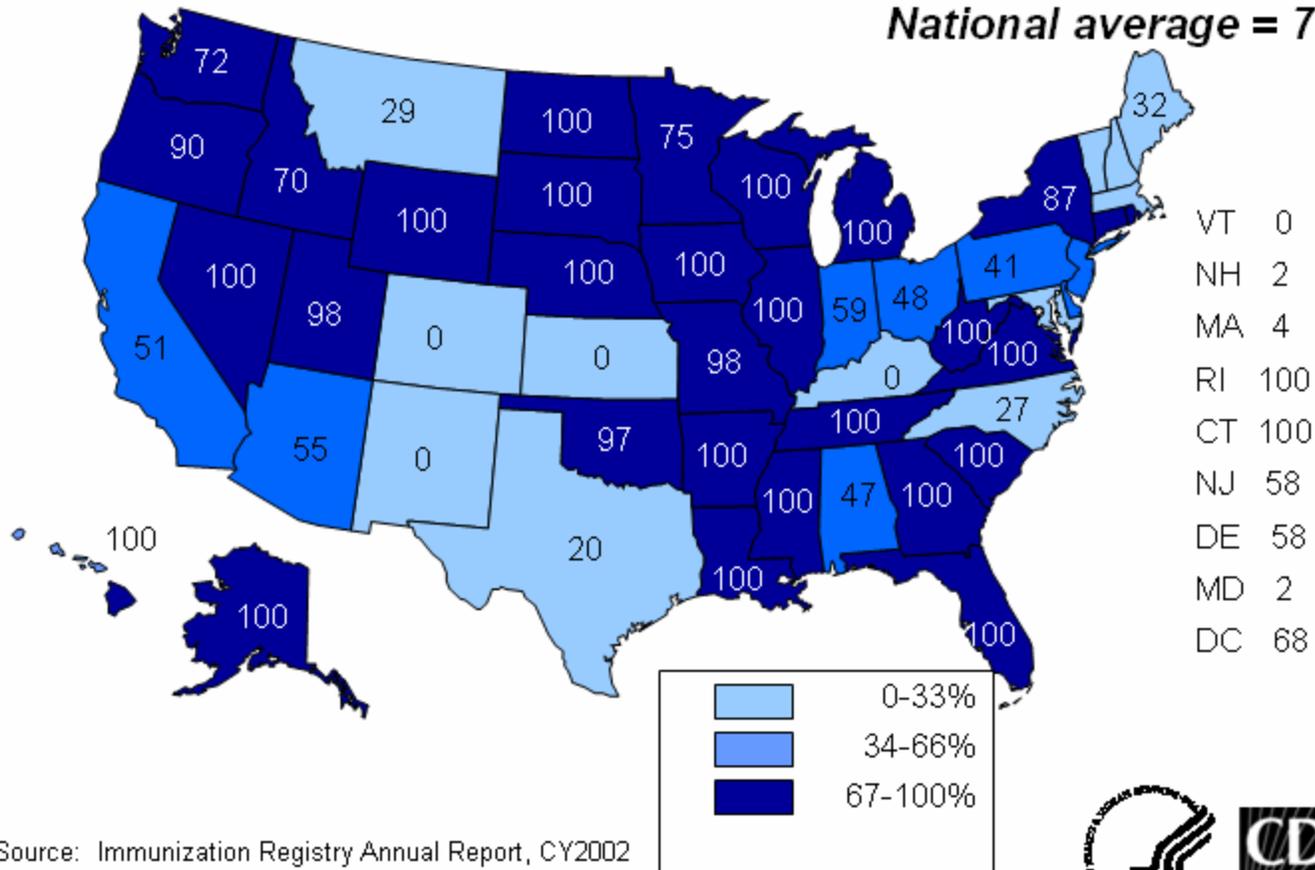
- Confidential, population-based, computerized information systems
- Collect vaccination data about children and in some cases adults within a geographic area
- An important tool to:
 1. Increase and sustain high vaccination coverage
 2. Consolidate vaccination records
 3. Generate reminder and recall vaccination notices
 4. Provide official vaccination forms and vaccination coverage assessments

Source: Centers for Disease Control and Prevention

Immunization Registry Participation Nationwide – Public Providers

Public Provider Participation in Registries, 2002

National average = 75%



Source: Immunization Registry Annual Report, CY2002

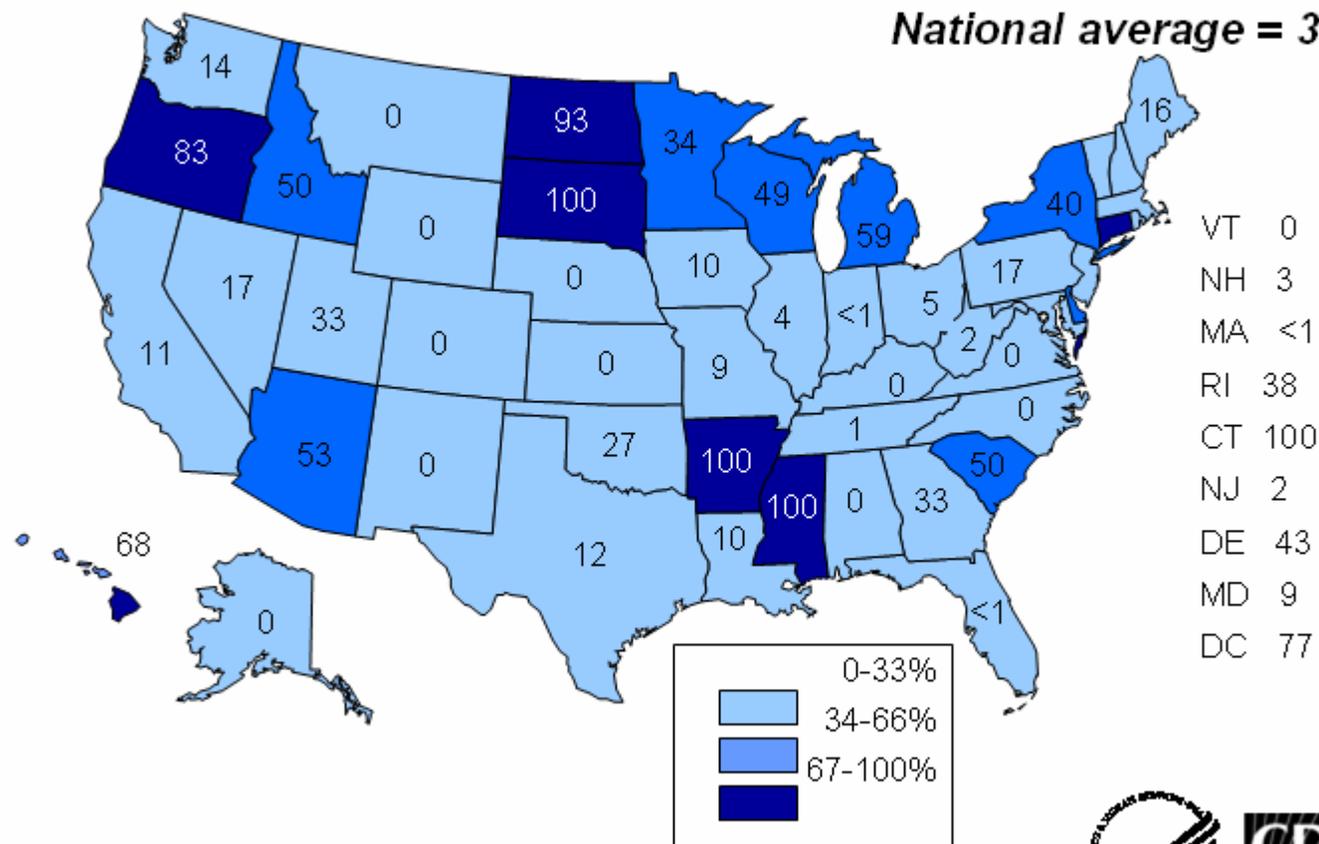
*: % of provider sites reporting to the registry within the last six months of 2002



Immunization Registry Participation Nationwide – Private Providers

Private Provider Participation in Registries, 2002

National average = 31%



Source: Immunization Registry Annual Report, CY2002

*: % of provider sites reporting to the registry within the last six months of 2002



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Current Registry Standards Include:

- Store NVAC approved core data elements
- Establish a registry record within 6 weeks of birth
- ✓ ● **Enable easy record access and retrieval at time of encounter**
 - Receive and process data within 1 month of shot
- ✓ ● **Protect confidentiality**
- ✓ ● **Ensure security**
 - Exchange using HL7
 - Automatically determine routine childhood shots needed at patient encounter
- ✓ ● **Automatically identify individuals due/late for immunizations**
- ✓ ● **Automatically produce immunization coverage reports**
- ✓ ● **Produce official records**
 - Promote accurate and complete records

Immunization Registry Certification

Certification Process

- NIP will contract with an outside organization to collect certification information.
- Registries that request certification will agree (by signature on the application for certification) to abide by the decision of the IRCC.
- NIP will receive information collected by the contractor and will provide support staff for the IRCC process.
- The IRCC should expect to receive a well-reviewed application. If deficiencies or incomplete information are found the application will be returned to the data collector to correct and resubmit to the IRCC.
- The IRCC will either certify the registry or reject the application with an explanation of the deficiencies.
- The written report will reference each standard, describe whether it was met and, if not, what is needed by the registry to meet the standard and describe areas that are exceptional or problematic.
- A registry should be recertified every 3 years.
- The IRCC will have an appeals process in place for registries that dispute the initial assessment.

Source: "Immunization Registry Certification: Recommendation of the National Immunization Program's Technical Working Group (TWG), October 21, 2003"

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Immunization Registries and Emergency Preparedness and Response



Source: Scientific Technologies Corporation

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Building

IMR TRAINING

4TH FLOOR



SMALLPOX
VAC

2ND FLR ↑

Timberwolves Room

Twins Room

Vikings Room

Wild Room



Registry Characteristics that can Support Preparedness

- Fluid Algorithm - table that's easily updated with Vaccine or Antibiotic "of the day"
- Adaptable to PC Version - Data Entry is Needed, not Real Time Updates via the Internet
- Stripped Down Software - for speed and flexibility
- Newer technologies:
 - Card Readers
 - Bluetooth or other wireless device
 - Flash (USB) Drives for fast, efficient data transfers
- Scaled Systems According to Population

Immunization Registries and Emergency Preparedness and Response

- In many large-scale outbreak situations, such as pandemic influenza, immunization registries can be used for:
 - Assessing coverage levels for initial and any subsequent doses of vaccine;
 - Helping to ensure that recipients of an initial dose in a series return on time for subsequent dose(s);
 - Helping to appropriately ration doses of vaccine by ensuring persons who received an initial dose aren't able to receive subsequent doses before they are due and before others have gotten their first dose;
 - Tracking adverse events and helping to identify "cold" lots of vaccine with less than expected efficacy; and
 - Assessing population coverage levels by geographic area, age groups, or other factors of interest.

Source: American Immunization Registry Association

Immunization Registries and Emergency Preparedness and Response

● In combating bioterrorism, immunization registries can be used for :

- Tracking who got what vaccine products on what date;
- Tracking antibiotics or anti-viral drugs, to help ensure multiple prescriptions and black market prescription drug activity are kept to a minimum;
- Reminding patients of their next due date for multi-dose vaccines, such as with anthrax; and
- Assessing population coverage levels by geographic area, age groups, or other factors of interest.

Source: American Immunization Registry Association

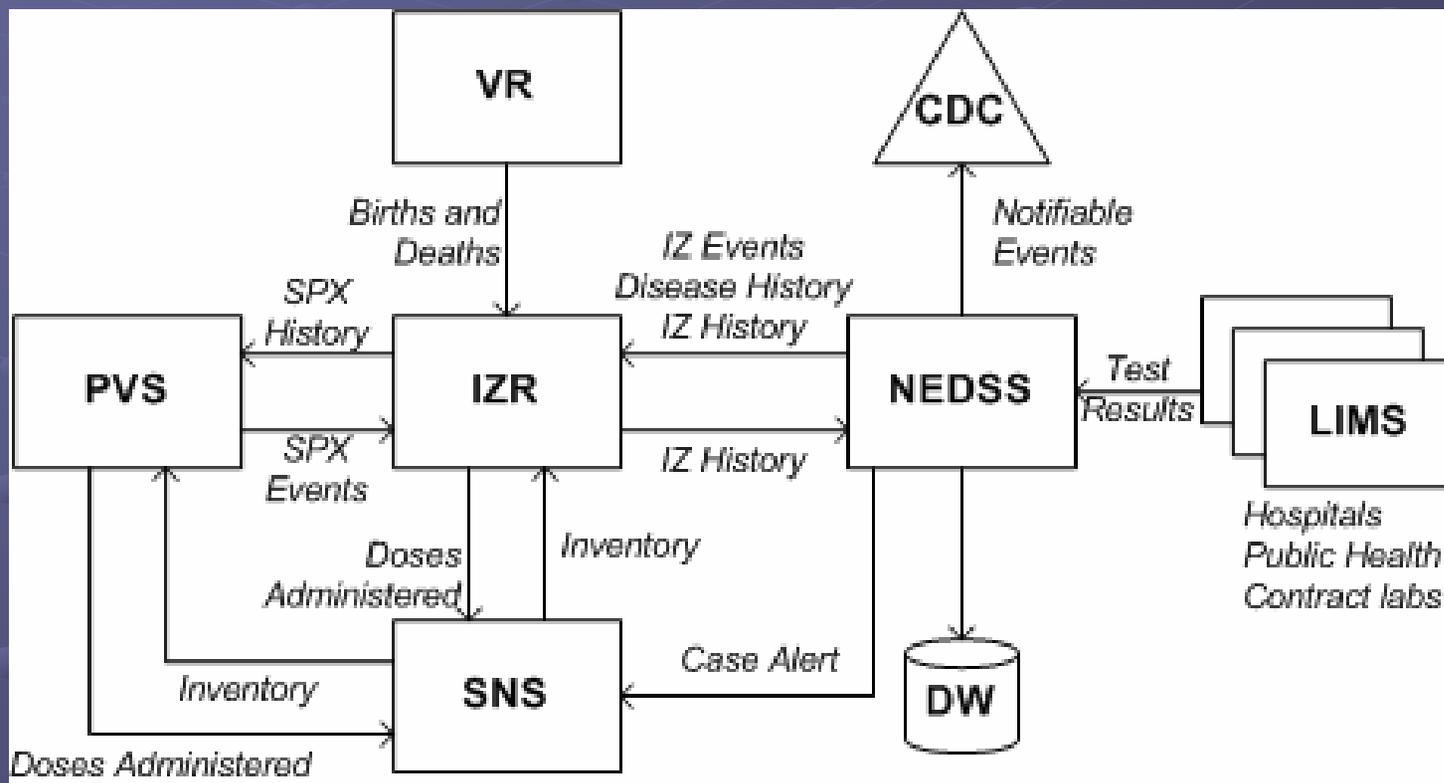
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Immunization Registries and Emergency Preparedness and Response

- Using an existing information system infrastructure like registries presents a number of advantages over creating a new system:
 - Health care providers and other users are already familiar with the software, so minimum training would be required.
 - There already would be minimal access point(s) for the collected data (versus contacting each provider separately).
 - The security (user logins, user authentication, data backups, etc.) and the privacy precautions are already in place.
 - Registry staff are experienced in generating and analyzing assessment reports at various levels of analysis.

Source: American Immunization Registry Association

Integration of Immunization Registries into the PHIN Architecture



Source: HLN Consulting, LLC

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Real World Examples of Immunization Registry Uses for Emergency Preparedness and Response

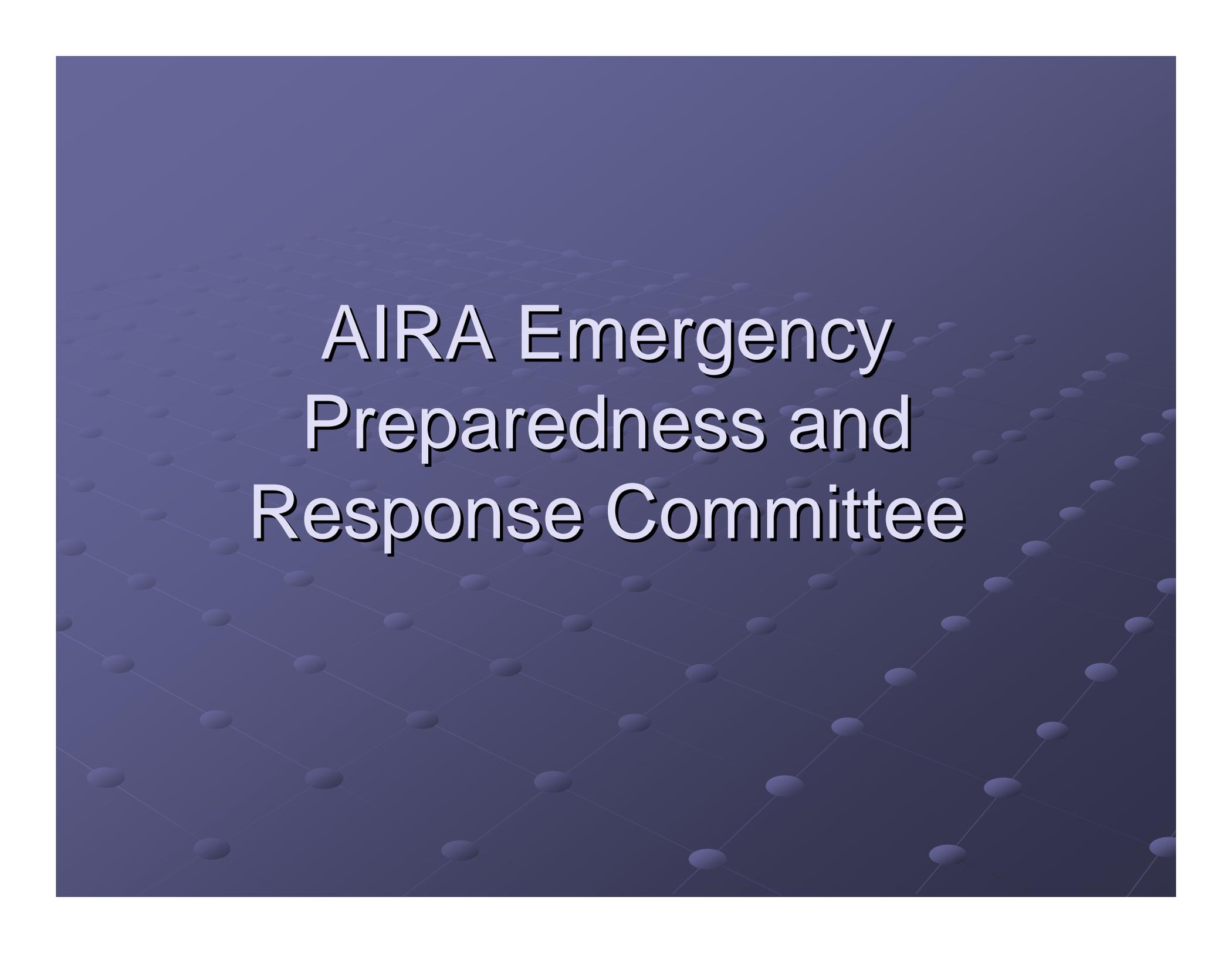
Leveraging Registry Knowledge

- NYC - developed a smallpox database known as Smallpox Immunization Tracker.
 - Independent of the Citywide Immunization Registry (CIR) but run by registry program
 - Incorporated fields for Adverse Event (AE) tracking
 - Designed Smallpox Immunization Reporting forms and various AE forms
 - used the forms provided by CDC as templates
 - System works very well, easy to retrieve data ; user friendly
 - Funding from Federal BT grant
 - Challenges mostly from sudden changes in CDC system requirements and the short time allowed to create system

Leveraging Registry Tools

● Louisiana LINKS

- PVS alternative registry add-on
 - Vendor developed
 - Certified by CDC
- Statewide mass immunization drill
 - Used LINKS as centerpiece to drill – scaled down mass immunization module
 - Nearly 240,000 reminder/recall notices were sent out to children in need of immunizations
 - During drill, over 11,000 patients received approximately 25,000 vaccinations.
 - Nearly 8,000 patients provided historical immunization records that brought LINKS record up to date—over 100,000 historical immunizations entered into system
- Statewide SNS Drill
 - Used registry to track administration of antibiotics



AIRA Emergency Preparedness and Response Committee

AIRA Emergency Preparedness and Response Committee

● Purpose:

The Emergency Preparedness and Response Committee works to identify issues related to the use of registries in bioterrorism and emergency preparedness. This committee also works closely with CIRSET on related technical issues.

● Summary of Activities, 2003

- Provided information about the possible uses of IZ registries in BT preparedness and planning to CDC and other key stakeholders.
- Provided input to CDC on the layout and flow of smallpox forms
- Conducted survey of AIRA membership to gather information about how registries were being used in smallpox clinics, and future plans for registry use in smallpox vaccination programs.

AIRA Emergency Preparedness and Response Committee

2004 Goals:

- Goal: Increase understanding of role of immunization registries in emergency preparedness and response infrastructure.

Objectives:

- Provide information on emergency preparedness and response resources to IZ All registry managers.
- Convene ongoing dialog on a monthly basis about the role of immunization registries in the public health emergency preparedness and response infrastructure.
- Utilize AIRA organization resources to educate key partners and stakeholders on the potential uses of IZ registries for preparedness and response activities.

- Goal: Encourage the development of registry functional standards in support of emergency preparedness and response and alignment with PHIN

Objective:

- Work with CDC/NIP and other AIRA workgroups to outline recommendations for standards development.

AIRA Emergency Preparedness and Response Committee

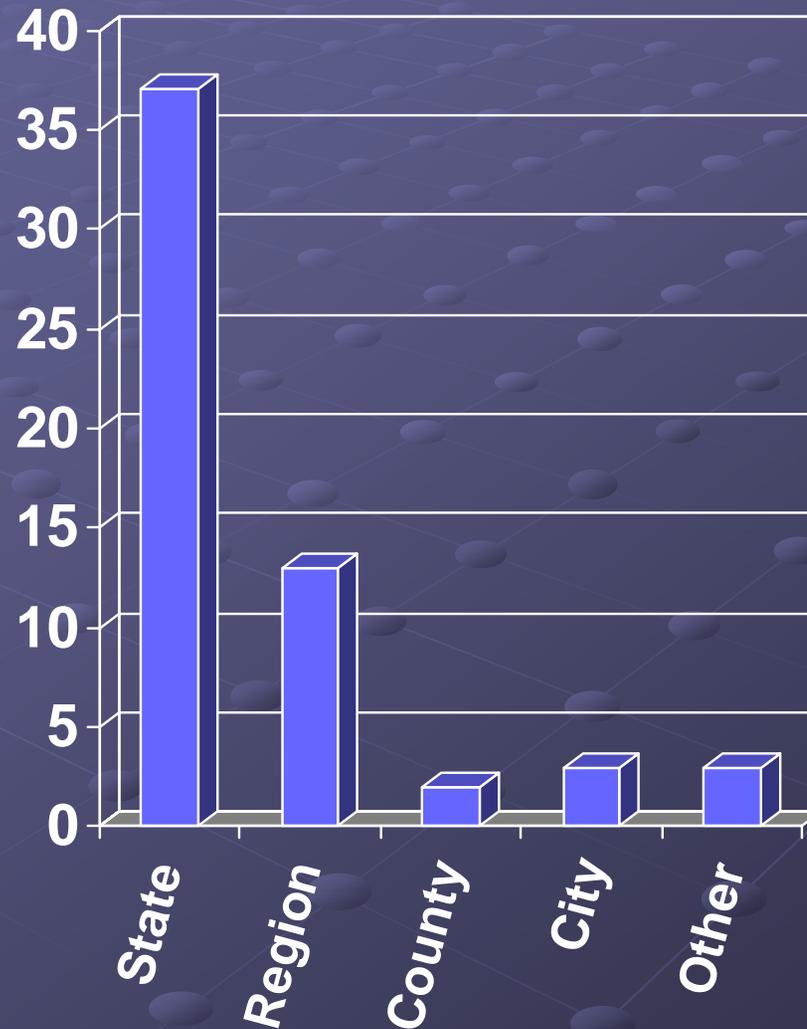
2004 Major Activities

- Meetings with key partners at CDC (1/04)
- Participation in NDMS Conference
- AIRA Emergency Preparedness and Response Committee (EPRC) Survey
 - Help AIRA and CDC understand how registries are being used around the nation for emergency preparedness and response
 - Use this information to create educational materials for immunization registry programs

AIRA Emergency
Preparedness and Response
Committee Survey of State,
Regional and Local
Immunization Registries

AIRA EPRC Survey

Jurisdiction

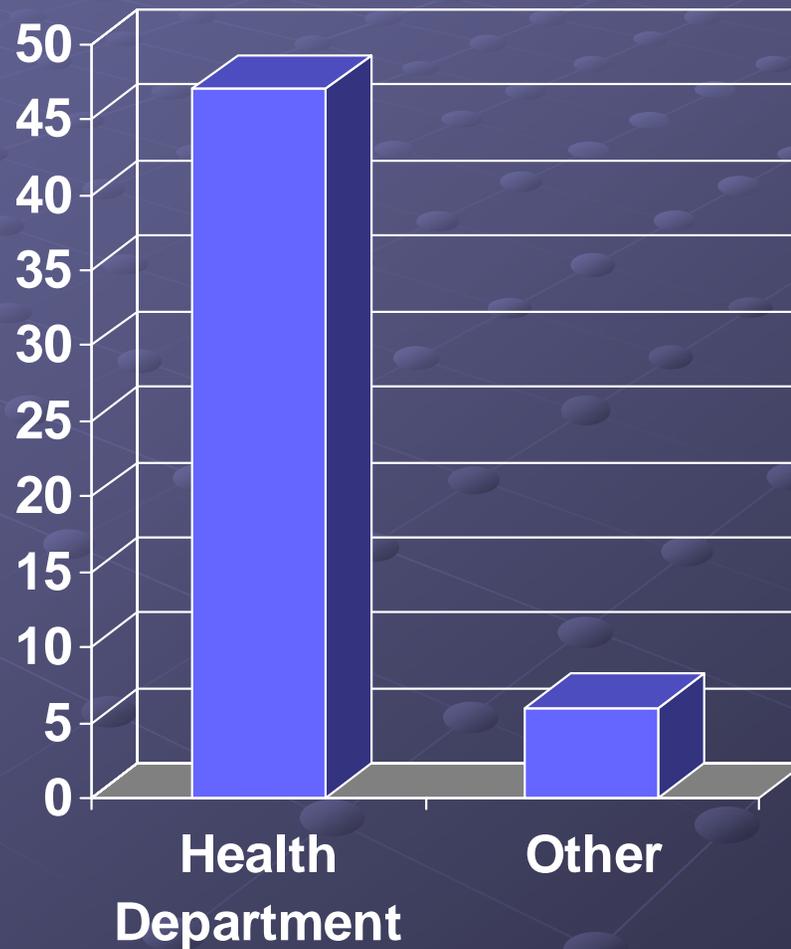


AIRA EPRC Survey

- 53 Immunization Registries Participated
- Catchment areas of respondents
 - State – 37
 - City – 2
 - County – 1
 - Region - 12

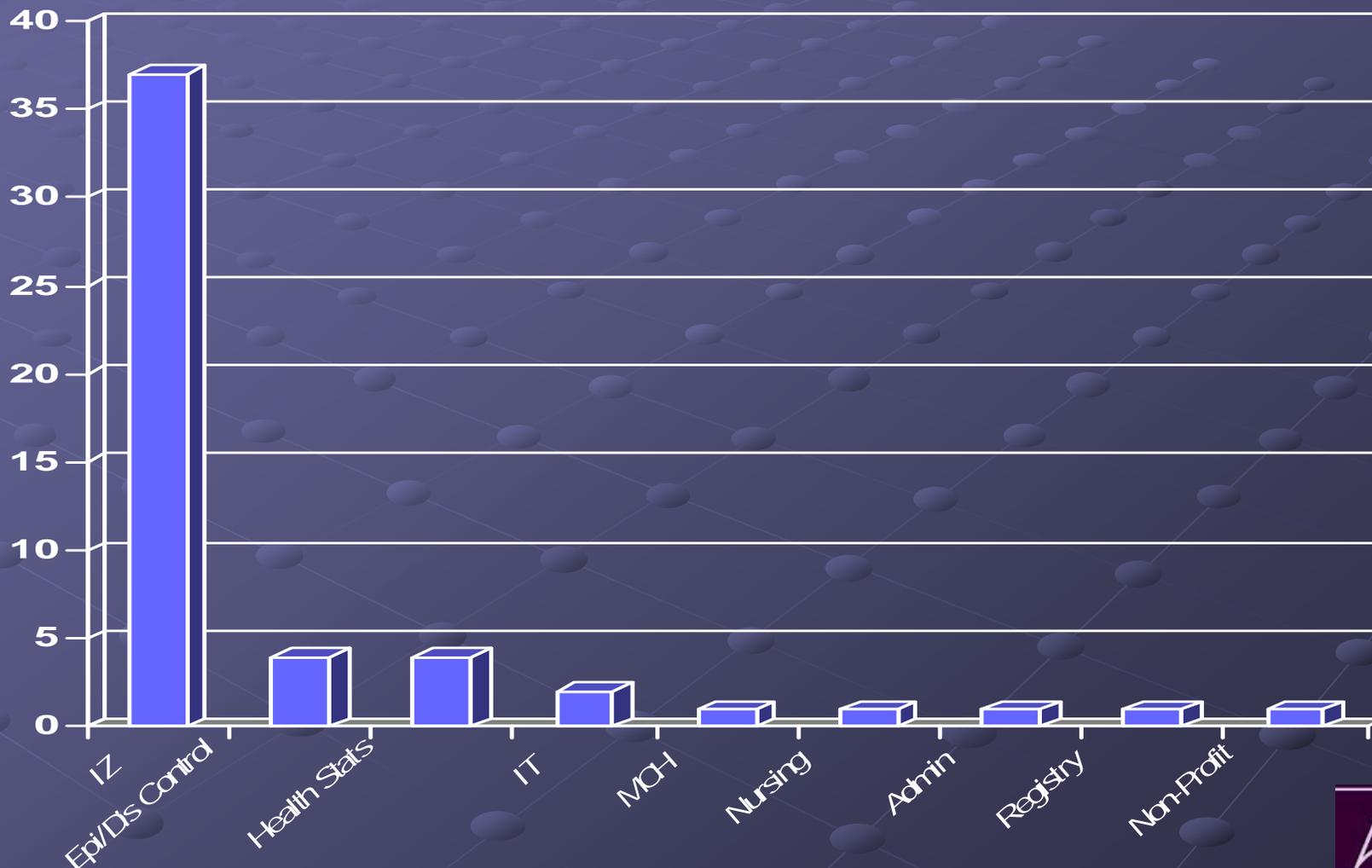
AIRA EPRC Survey

Public vs. Other Registries



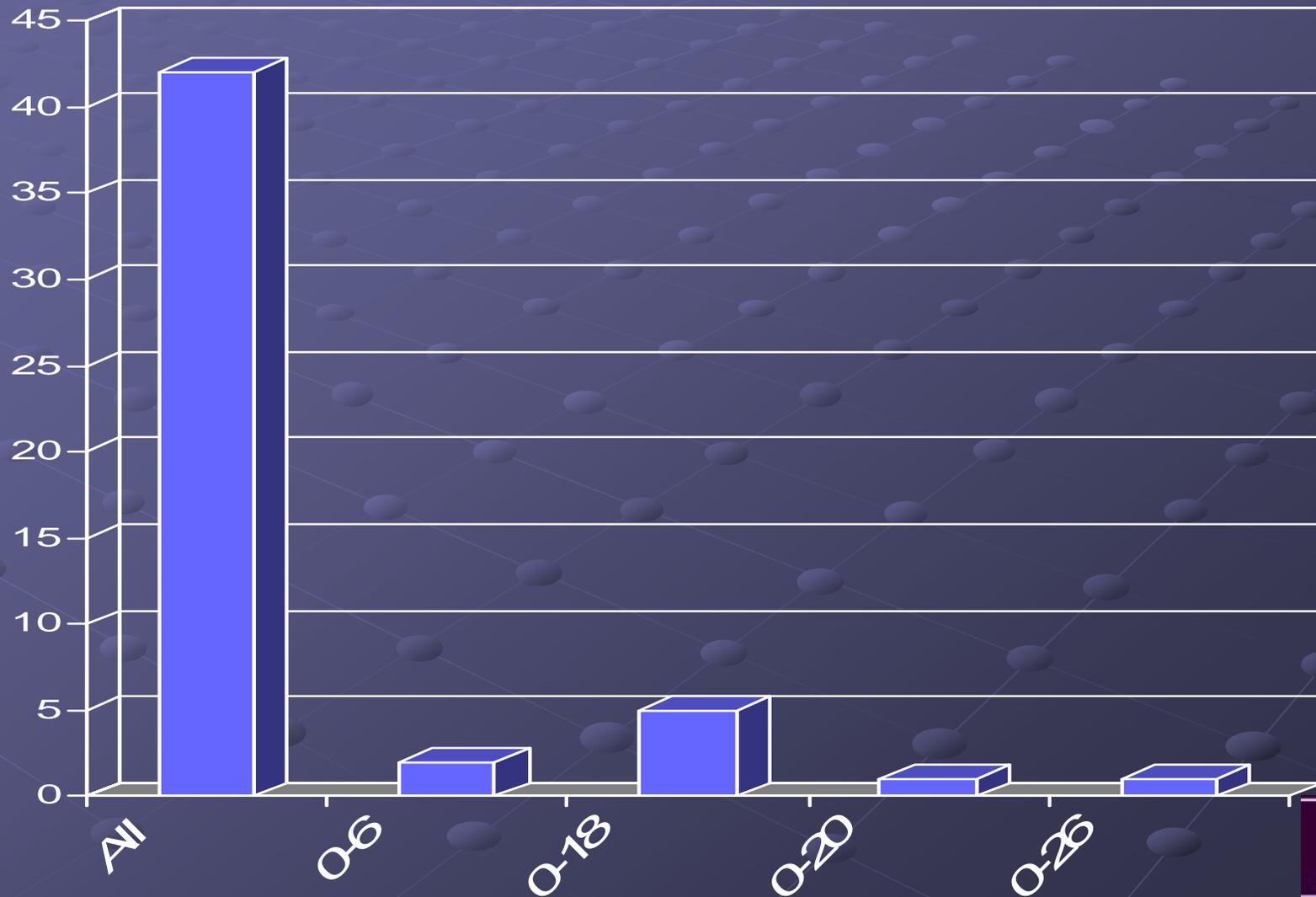
AIRA EPRC Survey

Location of Registry within Organization



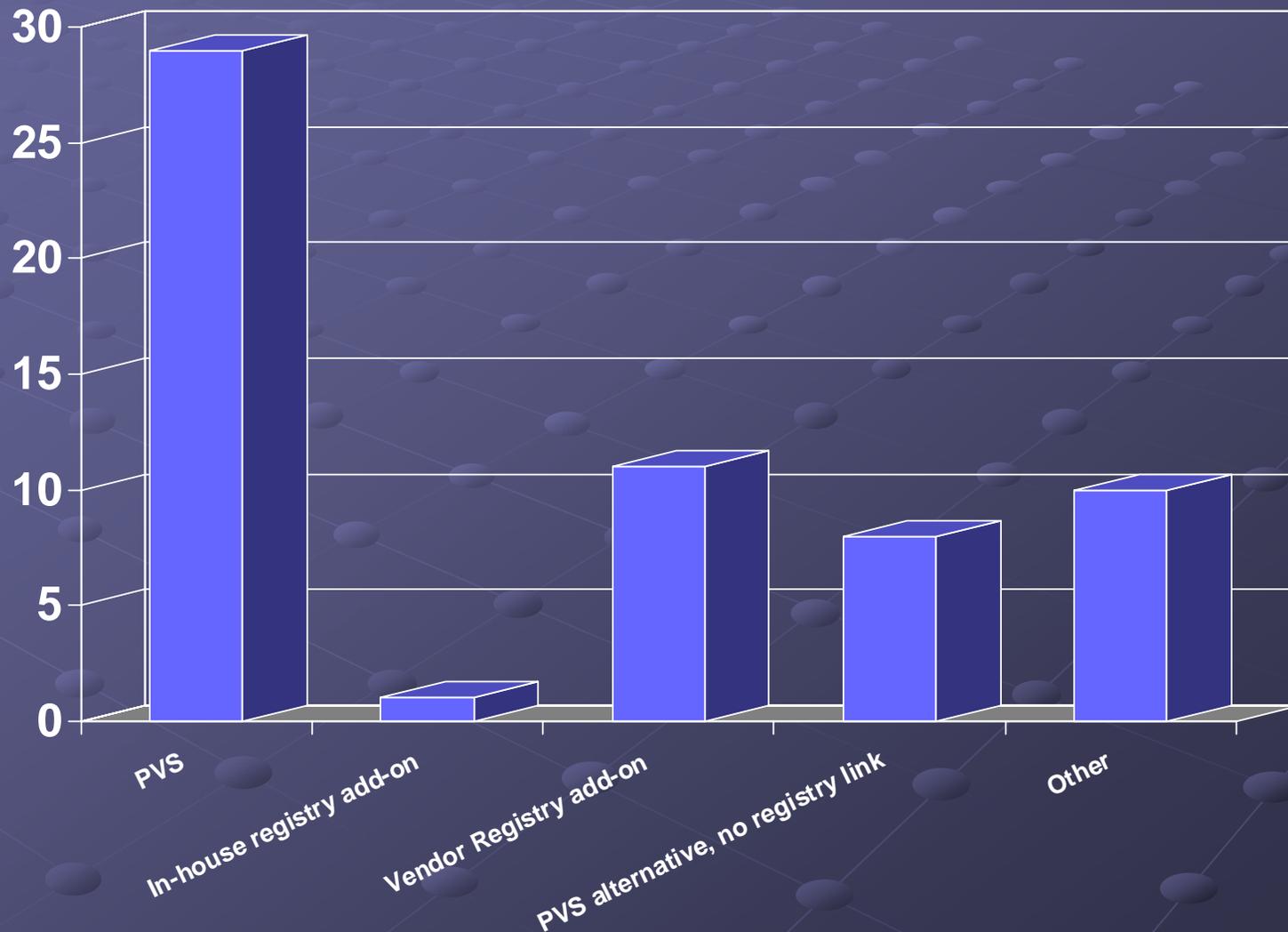
AIRA EPRC Survey

Age Restrictions on Collection of Registry Data



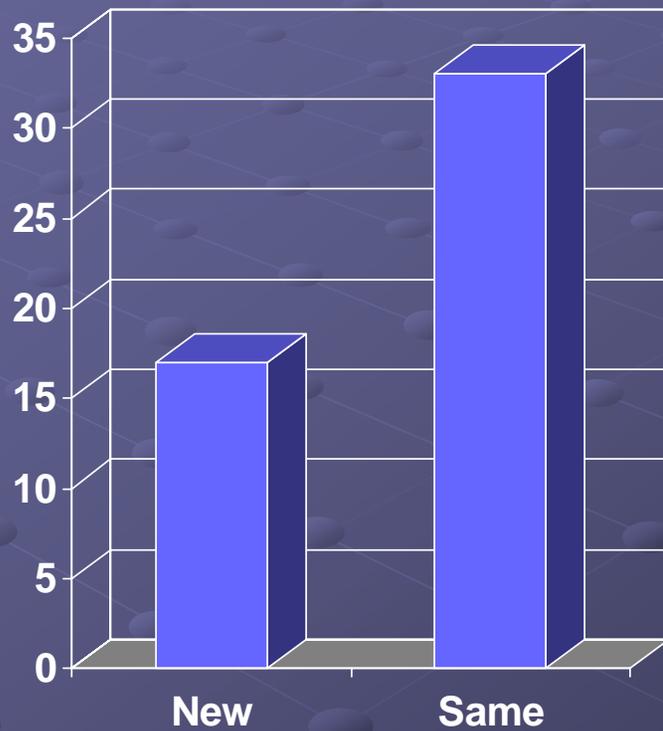
AIRA EPRC Survey

Smallpox Data Collection Methods

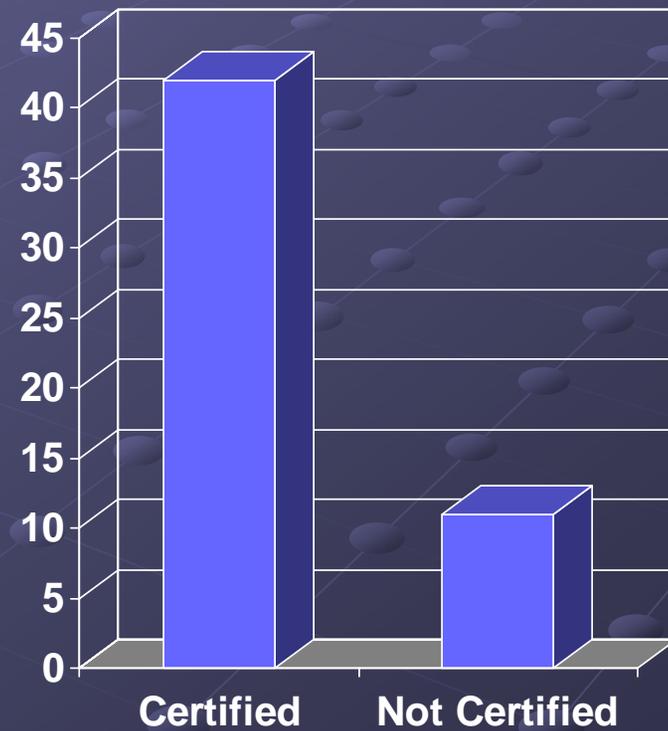


AIRA EPRC Survey

Jurisdictions that Switched Applications since Completion of Phase 1 Smallpox Program

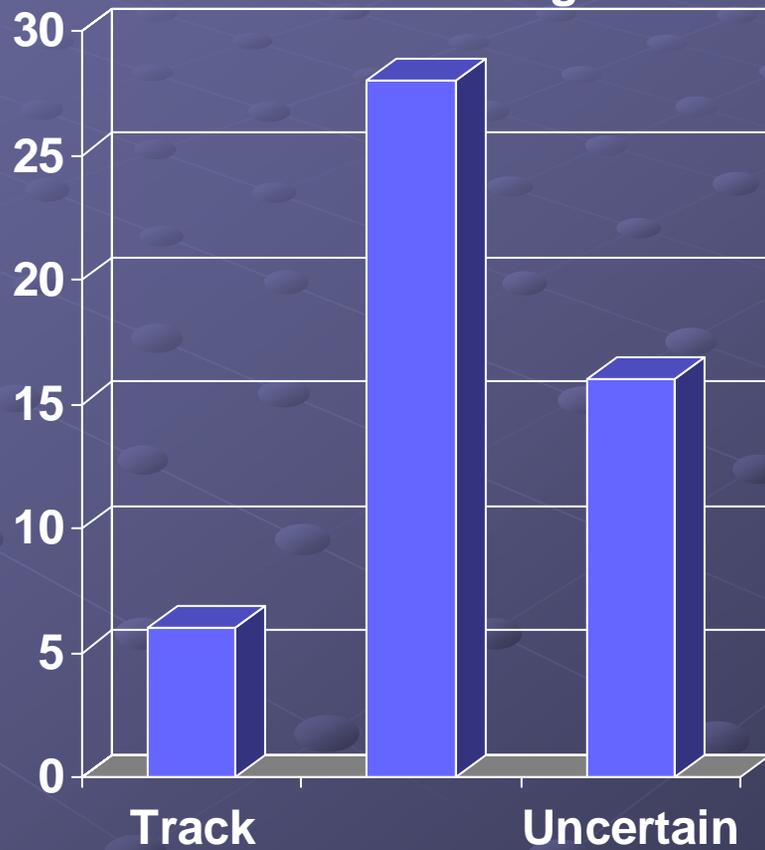


Certification of New Applications

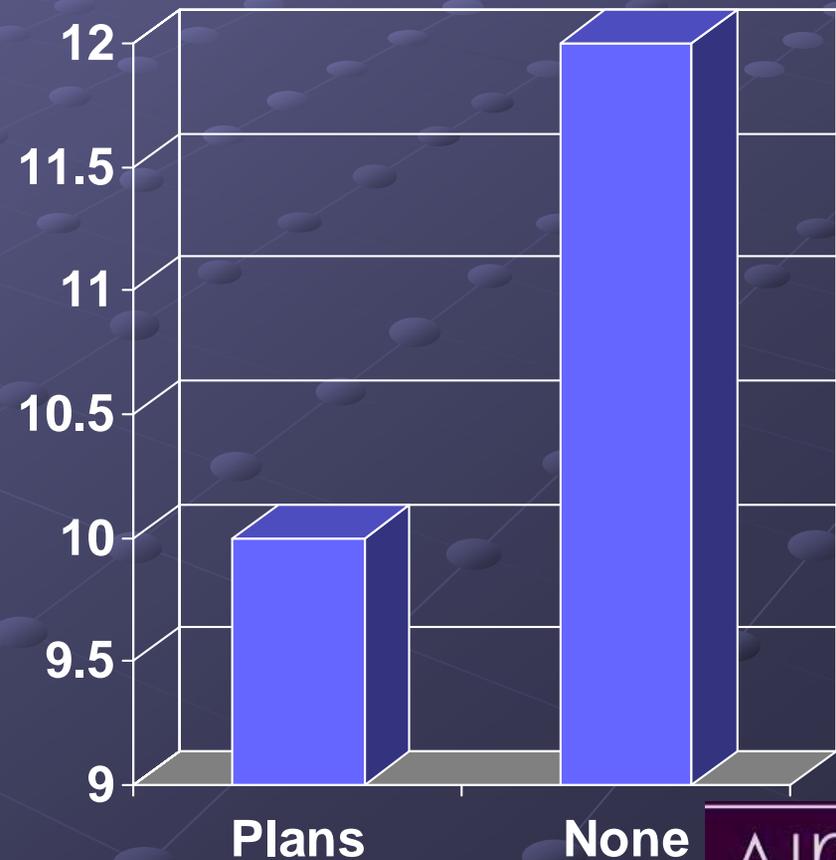


AIRA EPRC Survey

State Law Allows
Antibiotic Tracking



Plans to Use Registry as Part of
SNS Response



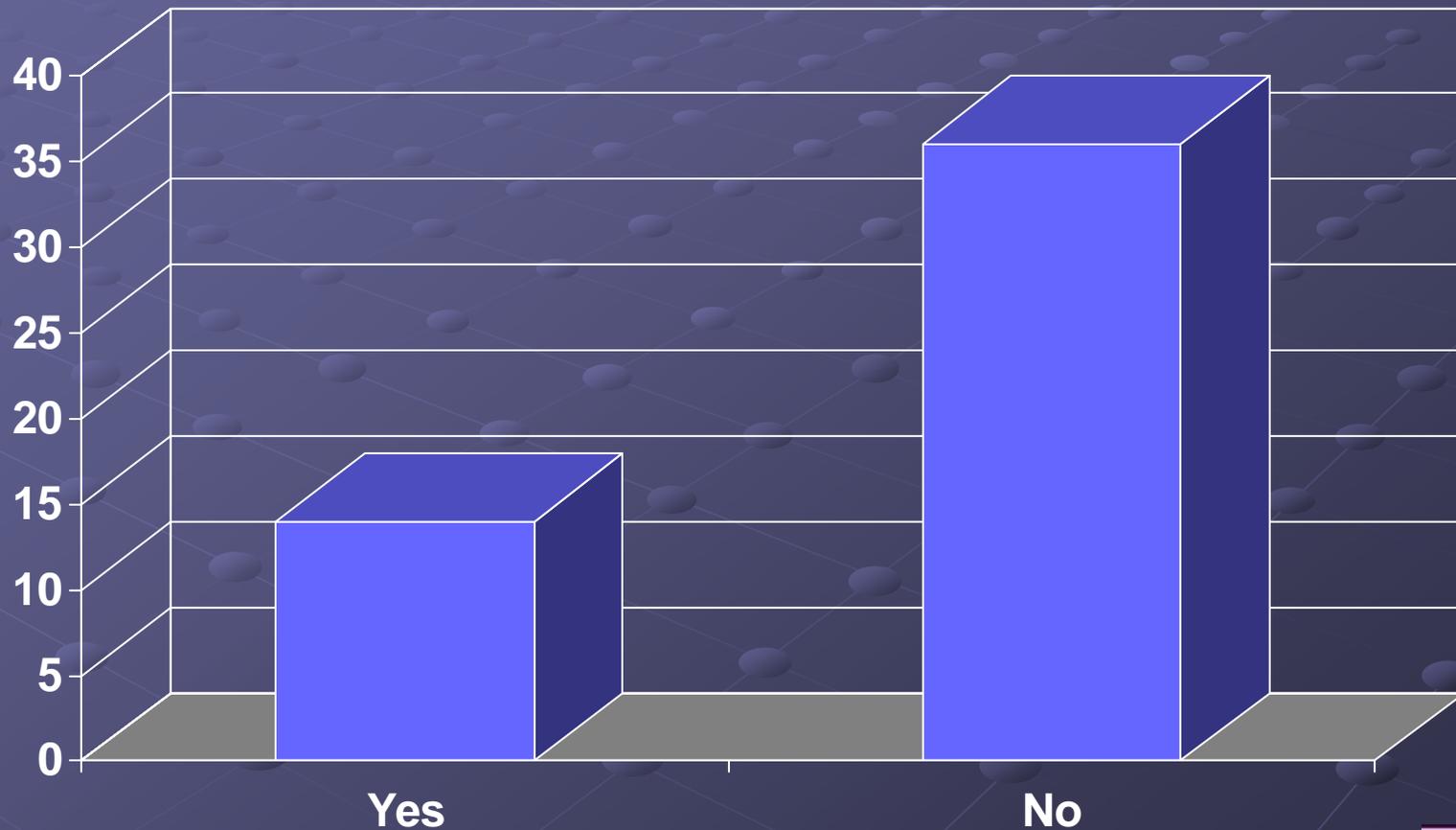
AIRA EPRC Survey

● Examples of Integration with SNS

- Inventory management – pharmaceuticals and durable medical goods
- Record vaccine or prophylaxis doses administered or dispensed
- Drills/exercises

AIRA EPRC Survey

Registry Integrated into Pandemic Flu/Mass Vaccination Plan



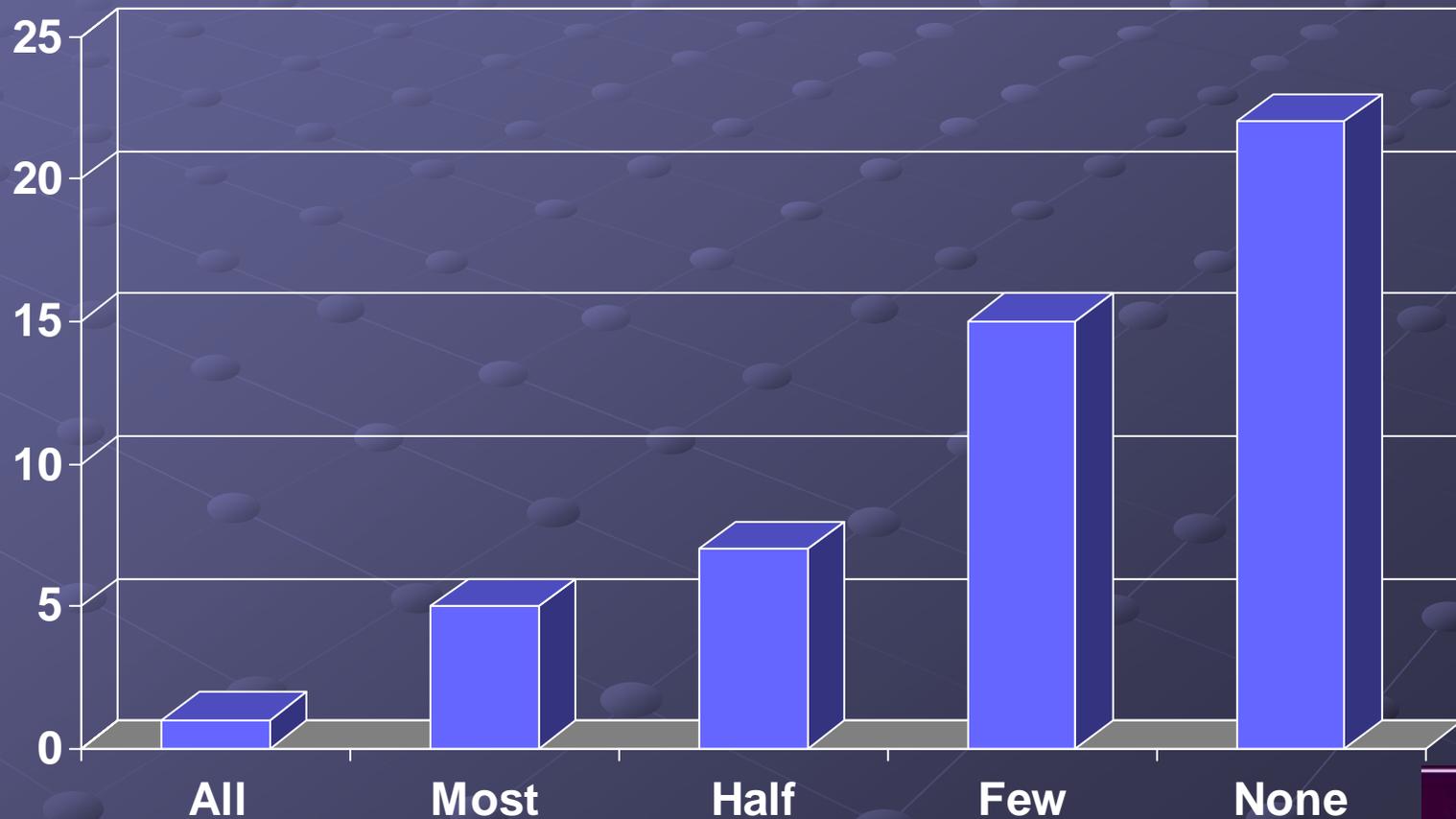
AIRA EPRC Survey

● Examples of Integrations with Pandemic Flu and Mass Vaccination Plans

- Manage inventory
- Record vaccinations administration
- GIS to determine vaccination penetration
- Flu and mass vaccination drills

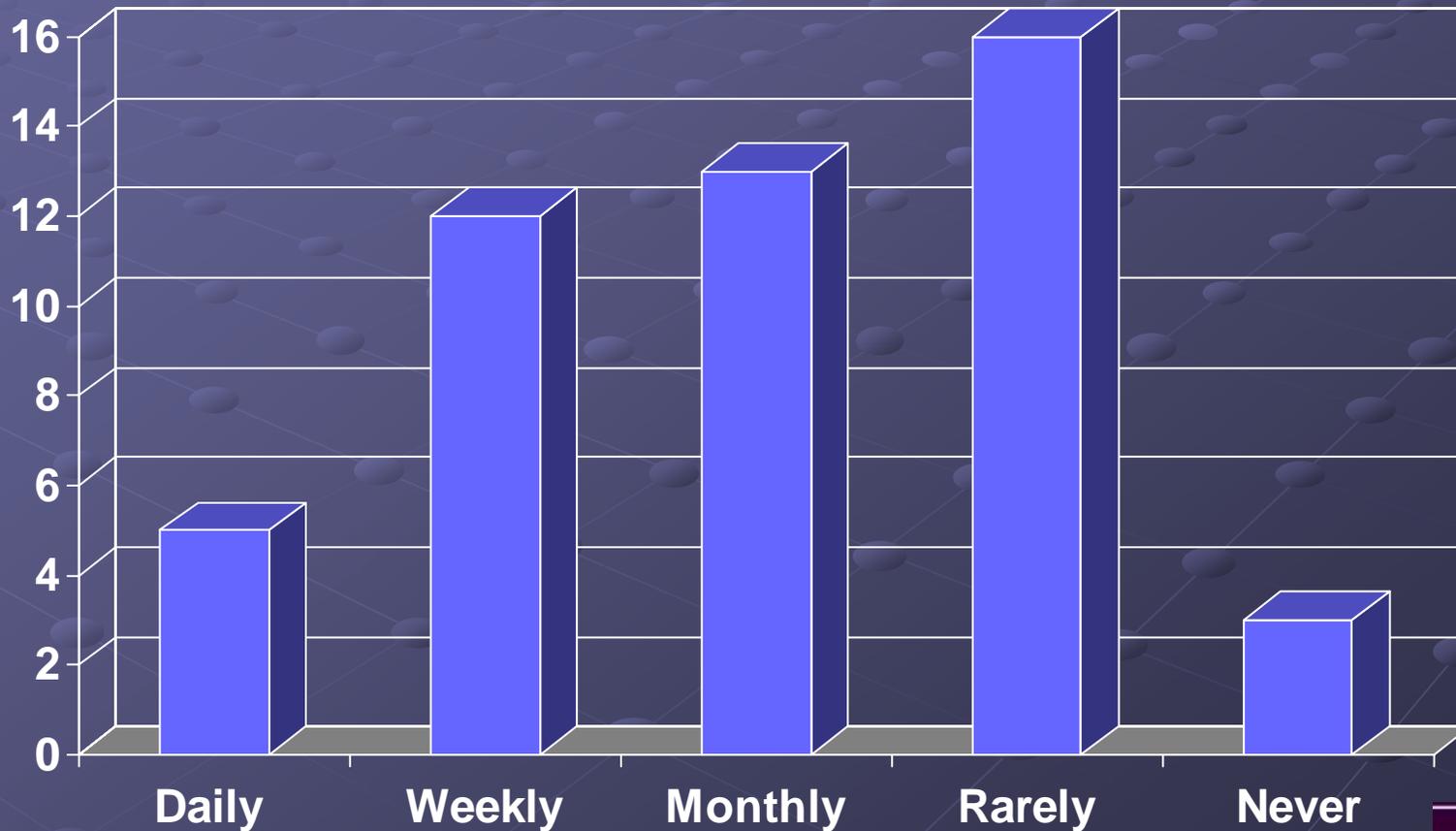
AIRA EPRC Survey

Providers Sending Timely or Real-Time Immunization Data to Registry 2003-2004 Flu Season



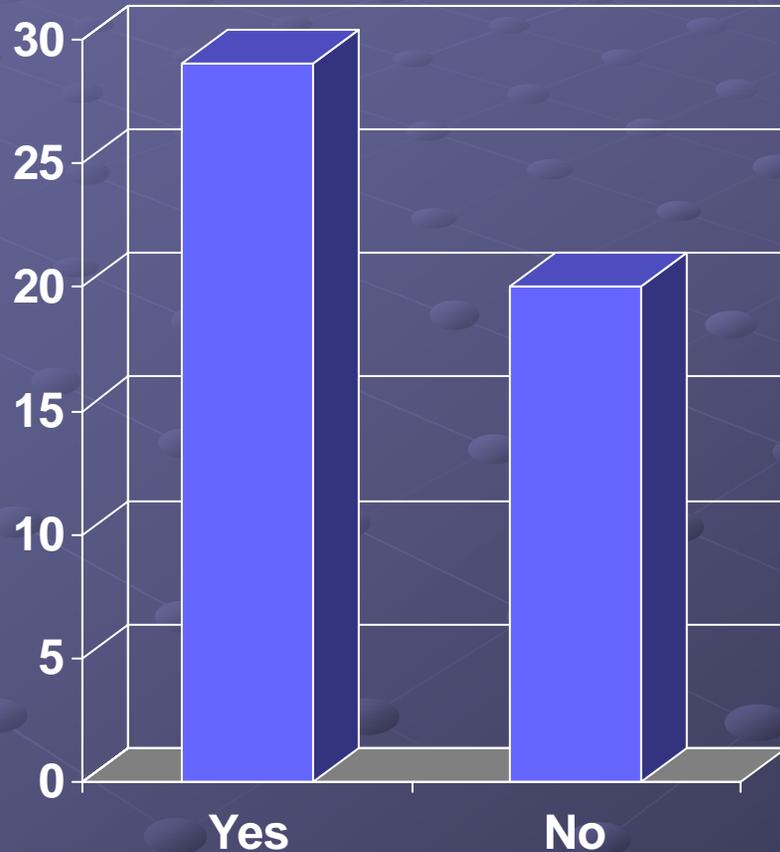
AIRA EPRC Survey

Frequency of Registry Staff Communication with Emergency Preparedness Staff in Catchment Area

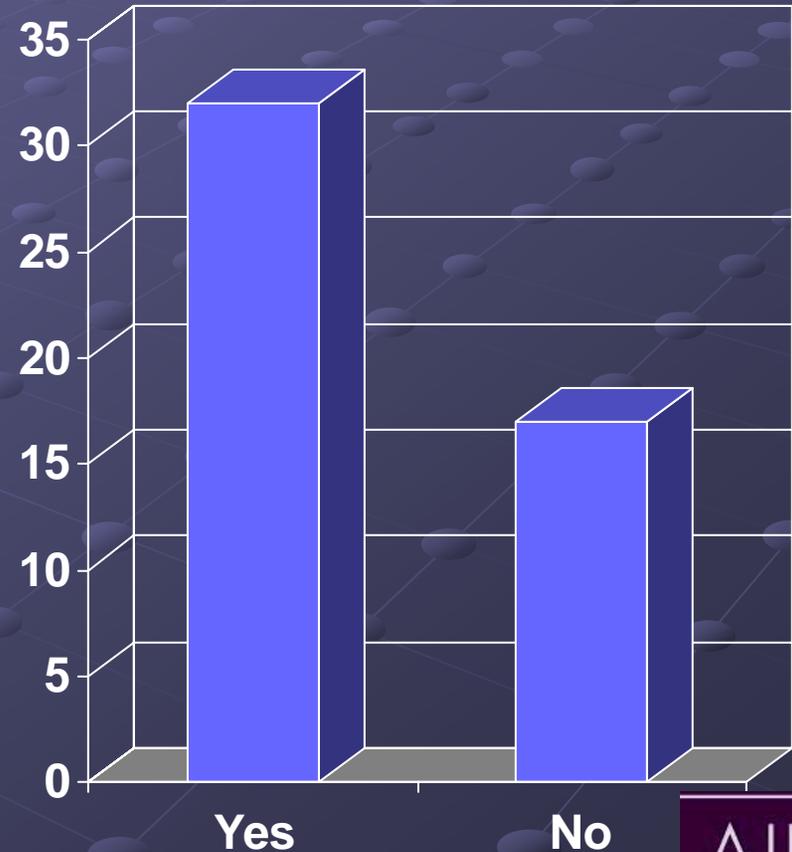


AIRA EPRC Survey

Active Participation by registry Staff in
Emergency Preparedness Workgroups



Registry Staff Received Formal
Emergency Preparedness Training in
Last 2 Years



AIRA EPRC Survey

● Types of Workgroups

- SNS
- Emergency response teams
- Statewide advisory groups
- EPO
- Smallpox
- CDC grant
- Mass immunization/prophylaxis/clinic planning

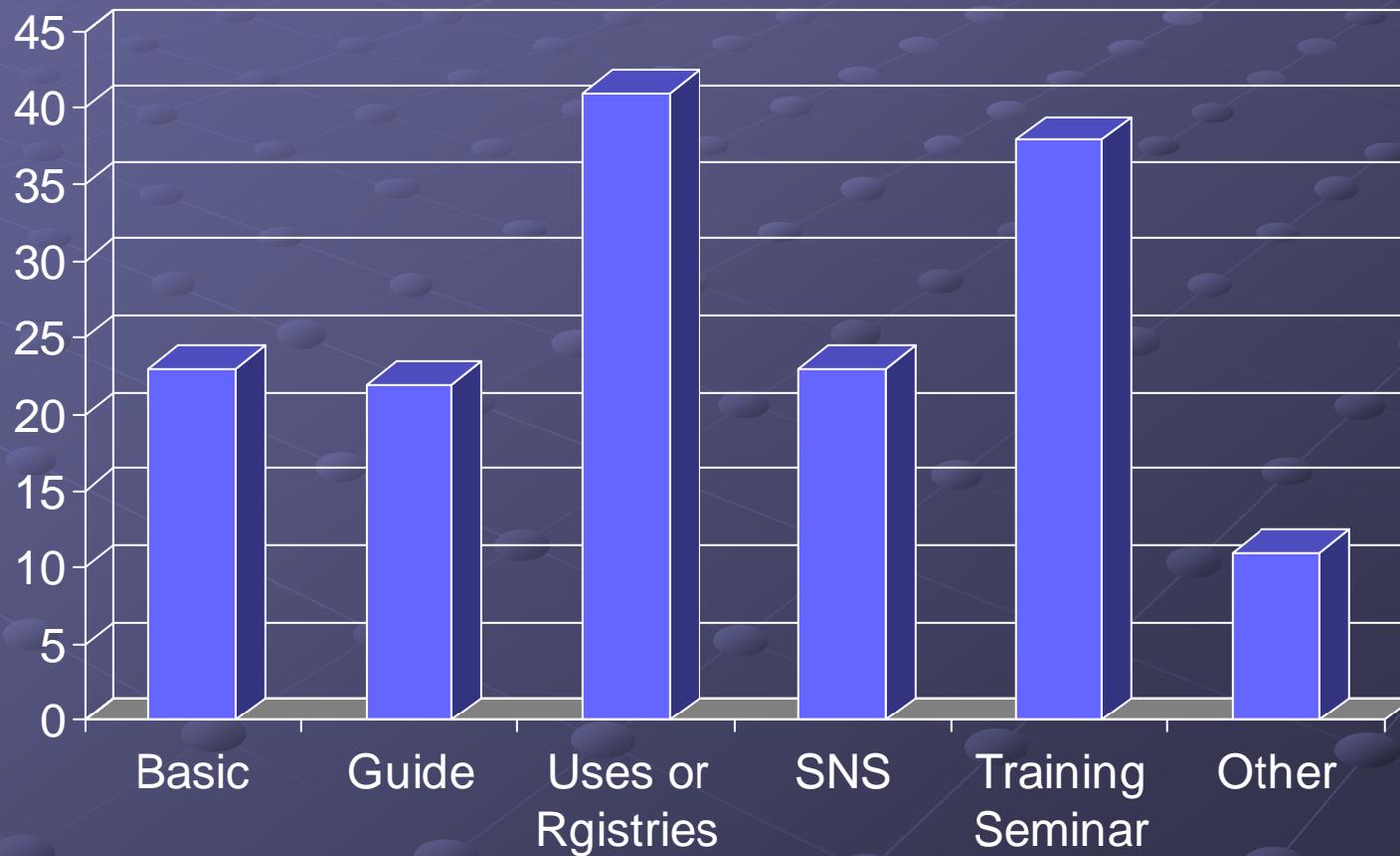
AIRA EPRC Survey

● Types of Training Rec'd. in Past 2 Years

- SNS
- Smallpox/mass vaccination
- Exercises and drills
- Incident command
- Hospital preparedness
- PVS, other software

AIRA EPRC Survey

Training Opportunities Requested by Respondents



AIRA EPRC Survey

● Other Training Requested

- Incident Command
- Compendium of information
- Funding of registries

Conclusions

- Registries can be an effective tool in emergency preparedness planning and response (NYC, Louisiana, LA)
- Registry integration with emergency preparedness varies widely around the country
- Registry leaders are interested in emergency preparedness training and planning
- We look forward to future collaboration and integration of emergency planning and response