

**National Vaccine Plan**  
**Goal 4**  
**Immunization Information Systems**

**Mike Garcia**  
**Scientific Technologies Corporation**  
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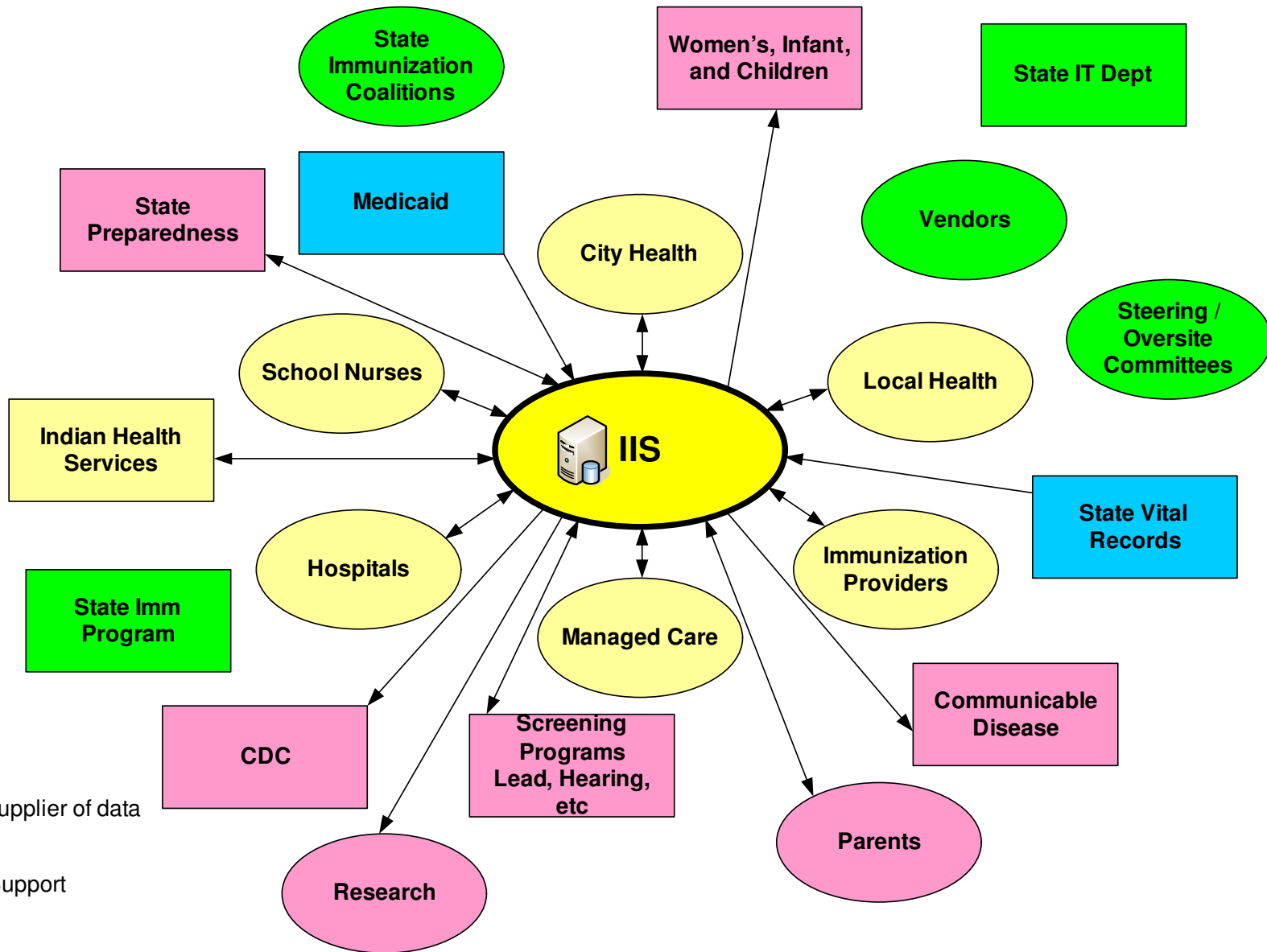
## **Immunization Information Systems (IIS) role in the Goal:**

**“Achieve better use of existing vaccines to  
prevent disease, disability, and death”**

- 1. IIS since 1994 National Vaccine Plan**
- 2. Electronic data interfaces and IIS**
- 3. Leveraging IIS Programs & Infrastructure**

# **2008 – IIS Update**

- **55 of 56 states and municipalities have an IIS**
- **A number of states are using a second generation solutions**
- **Standards have been defined (HL7 Implementation Guide, CDC Minimum Functional Standards, NVAC Core Data Elements, ACIP Recommendations)**



- IIS Supplier of data
- IIS Support
- IIS User / Supplier of Data
- IIS Data Consumer

# **STC's Perspective as an IIS Collaborator**

- **Since 1994**
- **Currently supporting 13 statewide IIS deployments**
- **Have performed IIS consulting services with additional 11 states**
- **Currently supports:**
  - **> 19M Patients**
  - **> 146M Shots**
  - **> 67K Users**
  - **> 75 Vendor Interfaces**

# Values of IIS

- **IIS' are most state's first mature public health's public / private, population based informatics system.**
- **Poised to interface with other electronic Public Health & Health Care information systems**
- **Now capable of being leveraged to “.. prevent disease, disability, and death” beyond vaccine preventable disease and across the lifespan**

# **Electronic Interfaces**

- **Sophistication of provider electronic records systems increase interfaces with IIS and other public health systems**
- **CIRCEC HL7 – industry standard methodology for electronic interfaces**
- **Robust interfaces equate to enormous time savings for providers and quality data for the IIS**

# **Electronic Interfaces – Current**

- **Wide diversity of interface solutions**
  - **Data formats: HL7, ASCII.**
  - **Transmission methods: batch uni-directional, batch bi-directional, real time bi-directional**
  - **STC clients split 50-50 between ASCII and HL7. Primary transmission method is batch uni-directional.**
- **HL7 bi-directional is increasing in popularity due to increased sophistication of provider systems (EHRs, EMRs, etc) and public health enterprise systems**

# **Electronic Interfaces - Future**

- **EMR / EHR interface standards are being developed and implemented (not just for IIS data)**
- **September 2005, \$7.5 million dollars from HHS to develop Certification Commission for Information Technology (CCHIT)**
- **CCHIT defines standards for true interoperability with IIS. Includes immunization functionality, data elements, transport methodology.**

# **Electronic Interfaces - CCHIT**

- **Current certification requirements (2008 and 2009 Roadmap) do not satisfy IIS interface requirements**
- **Vague, lack of specificity (eg: vaccine inventory data; bi-directional capabilities; management of consent or opt-out).**
- **Lack of IIS representation / attention on CCHIT standard committees**

# **Leveraging the IIS for Improvements in Immunization Outcomes**

- **Identifying barriers to immunization (Objective 4.4)**
- **Epidemiologic characterization of vulnerable populations -- small-area analyses (Objective 4.3)**
- **Evaluate new communications methodologies (Objective 4.3)**
- **Establish / expand sentinel registry sites**

# **Leveraging the IIS for Population Health Improvement**

- **Preparedness**
  - **Leveraging system infrastructure and data**
  - **Supports pandemic flu, mass immunizations, strategic national stockpile**
- **Vaccine Preventable Disease Surveillance**
  - **Integration of IIS and Disease Surveillance systems (Objective 4.8)**
- **Health Promotion and Disease Prevention**
  - **Leverages system infrastructure, data, relationships and stakeholders**
  - **Research (Objective 4.4, 4.5, 4.6)**
  - **Program Evaluation (Objective 4.7)**

## **Leveraging IIS – Other PH Systems**

- **Women's, Infants, and Children (WIC)**
- **Screening (Lead, Hearing, Metabolic)**
- **Integrated Public Health Systems**
- **School Systems**
- **Early Periodic Screening, Diagnosis and Treatment (EPSDT)**
- **Anticipatory guidance (e.g. AAP)**

# Further Recommendations

- **CDC Registry Advisory Committee**
- **Vaccination / Coverage Level Decision Support System**
- **National Forecasting Algorithm**
- **Enhance Private Health interfaces (eg: IIS -> Managed Care -> Health Portal -> members)**
- **IIS as all-ages informatics system (capture adolescent and adult populations)**
- **Educational delivery / evaluation tool**
- **State to State Facilitation**
- **Parent / Guardian Access**
- **CCHIT Representation**

# Links

- **NVAC IIS Progress report**

- <http://www.hhs.gov/nvpo/nvac/documents/2007feb/Hinman.ppt#256,1,NVAC>

- **CCHIT**

- <http://www.cchit.org/about/faq/general.asp>