Towards a Model Vital Statistics System: The Re-engineering of the State and National Vital Statistics Systems

National Association for
Public Health Statistics and
Information Systems

NAPHSIS IS:

- National Association for Public Health Statistics and Information Systems
- Membership include 57 vital event registration jurisdictions (states, cities, territories)
- Mission: Provide national leadership in advocating, creating, and maintaining comprehensive high quality public health information systems that integrate vital records registration, public health statistics, and other health information.
- An affiliate of the Association of State and Territorial Health Officials (ASTHO)

Problems faced by Vital Records offices…

- Implementation of revised US standard certificates and databases for birth, death and fetal death
- Federal reporting functions and state business functions are becoming integrated.
- Higher expectations of data quality and timeliness by stakeholders and public
- Separate costly re-engineering projects in various jurisdictions
- Need for a standards-based nationally uniform, systematic approach

Addressing problems…

- **Re-engineering**: Fundamental re-thinking and radical re-design of business processes to bring about improvement
- Use of new technology to support re-engineering
- **The Goal of Re-engineering is that every jurisdiction can sustain an automated vital records system(civil registration) that can furnish current and integrated information to authorized individuals and stakeholders.**

Current State of the States

- Use of older technology
- Processes and subsystems that manage birth and death registration, certification, back-office processes not well integrated
- There is a growing interest among states to integrate birth records with newborn hearing and metabolic screening, birth defects, immunization and other data systems

Recap of States' Projects

- It is **very expensive** for states to undertake these projects *individually*, **Collaboration** is the key to success
- More than 70% of the states are seeking guidance from NAPHSIS and partners to facilitate re-engineering

Key Partners

- SSA is providing seed funds to assist states in developing electronic death registration systems
- NCHS is providing funding and staffing to
  - Facilitate the overall planning for re-engineering
  - Develop requirements for model electronic birth and death registration systems
  - Coordinate requirements planning between the birth and death registration groups

Management of the Re-engineering Project

- Re-engineering Oversight Committee co-chaired by Lorne Phillips (KS) and Ed Hunter (NCHS)
- The Oversight Committee has key representatives from NAPHSIS, NCHS and SSA

Management… (cont.)

- Sub-Committees (each with about 6 jurisdictions) for:
  - EBRS – Mike Lavoie, GA, Chair
  - EDRS – Steve Schwartz, NYC, Chair
  - Reports/Files/Outputs – Bob Anderson, NCHS, Chair
  - IT – Garland Land, MO, Chair
  - Certification and POS – Dorothy Harshbarger, AL, Chair
  - Data Analysis – Trish Potrzebowski, PA, Chair

Phase I Outcomes of the Re-engineering Project

- The overall process to include:
  - Use case analyses to define, analyze and document user-system interactions, determine commonalities, functional requirements including business rules
  - Technical guidelines to include infrastructure requirements, system performance requirements, scalability, disaster recovery, archival issues, support

Re-engineering Project… (cont.)

- Two primary stakeholders (NCHS and SSA) are funding use case analysis activities
- Use case analysis requires a high level of commitment from jurisdiction representatives (3-4 days at each session, 3-4 JAD sessions in 4 months)

Accomplishments

- Contracted with Northrop Grumman to perform use case analyses
- Trained both the EBRS and EDRS Re-engineering Committees
- Use case modeling for EBRS and EDRS begun in January 2003, completed in April 2003
- The IT, Reports/Files, Data Analysis and POS Committees provide support documentation to EBRS and EDRS groups

Expected Outputs of Phase I

- Use case models and systems requirements for a model vital statistics system that can meet 85% of the needs of any vital records office
- Sample request for proposal template
- List of sample reports and files that should be available through a re-engineered system

Phase II of the Re-engineering Project

- Data dictionary
- Logical and Physical Data Models
- Technology Guidelines (to include security, disaster recovery, and others)
- Operational Plans (including maintenance and support)

Benefits to the States

- Better technology at the states' disposal to allow ease of use, modification and maintenance
- Significantly improved timeliness and quality
- Better customer service through faster service and the ability to use integrated databases
- Improved service to federal partners in verifying and certifying vital events

Benefits to States (cont.)

- More efficient office operations through automated work-flow management and performance monitoring
- Ability to meet constrained federal reporting requirements
- An integrated civil registration system linked to hearing and metabolic screening, birth defects, immunizations and other state & federal systems
- Leveraged lower system costs

Benefits to Current Federal Partners

- Improved quality and timeliness of reporting jurisdictions
- Less time spent on data correction and iterative records gathering
- Timely production of nationwide vital statistics
- Electronic verification of various attributes of vital events

Benefits to Current Federal Partners (cont.)

- Reduction in fraud through better electronic record matching – SSA claims that it will save $50M per year.
- Significantly improved customer service in the determination of benefits
- Congruence with the e-Vitals initiative of the Office of Management and Budget

Conclusions

- Re-engineering is essential, but it is not easy
- The cost of not re-engineering is very high
- The process being initiated will require a high level of energy, time and commitment
- Results by June 2003
- Same benefits will be extended to new partners
- Seeking additional partners and support