

Massachusetts

Project title: Virtual Gateway / Enterprise Service Management (ESM) / Enterprise Invoice Management (EIM)

Organization responsible: Executive Office of Health and Human Services (EOHHS), Massachusetts Department of Public Health (MDPH)

Service coverage area: Commonwealth of Massachusetts

Annual birth cohort: Approximately 80,000

Project scope and goals

The Commonwealth of Massachusetts is building – and has deployed initial components of – the Virtual Gateway, a single point of entry to all health and human services. The Virtual Gateway will channel all information from providers – and eventually individuals – concerning application for and delivery of services, as well as interaction with oversight organizations. Major components include Intake and Referral, Eligibility and Enrollment, Service Delivery and Tracking, Invoice Management, Organization and Program Administration, and Fiscal Oversight.

Data gathering will be centralized in a common service extensible to a variety of programs from Newborn and Early Childhood initiatives such as Hearing Screening, Early Intervention (EI), and WIC through Women Health Network (breast and cervical cancer screening), Medicaid, mental health services, and substance abuse services. Using a Web services architecture, information can flow to reusable application components for validation, recording, and processing. Common components deal with security and privacy, ensuring a comprehensive and reliable custodianship of personal data. Significant functionality is planned that supports the consistent delivery of services as well as case management and oversight.

The common application for Medicaid, Food Stamps, Child Care, Healthy Start, WIC, and Women's Health Network services is available. Deployment of Service Delivery and Invoice Management is expected to begin in late fall 2005 (for Women's Health) and continue through the first half of 2006 (for substance abuse and EI). Extensive testing has begun. The functionality referenced below (see History) for the Early Childhood Data System, which integrates birth records, newborn hearing, birth defects surveillance, FirstLink newborn screening, and some early childhood services, will be moved to the Virtual Gateway later in 2006.

Funding

Federal funding includes SAMHSA (for substance abuse), the Maternal and Child Health Block Grant (for Early Intervention), HRSA Genetics Branch (for newborn

screening and early childhood programs), Department of Agriculture (WIC), CDC (for Women's Health Network and newborn hearing), Department of Education Part C of IDEA (for Early Intervention), and other sources for Virtual Gateway integration of EOHHS programs housed in agencies other than MDPH. State dollars have also supported the development of the Virtual Gateway infrastructure for the ESM/EIM, which in turn facilitates integration of MDPH programs that rely on external providers who must, for example, submit invoices for payment of EI services.

History

Planning began in 2000 for VitalSTEPS, a virtual single point of entry for programs in the MDPH Bureau of Family and Community Health (BFCH) connected to births. Later called STEPS and now ESM/EIM, this project is under the umbrella the EOHHS Virtual Gateway, with the service-oriented architecture of the Virtual Gateway able to integrate the various projects. The project was renamed for the reusable business services that it supports – Enterprise Service Management (ESM) and Enterprise Invoice Management (EIM) – and will be used by all 17 agencies under EOHHS.

In the meantime, since 2001, partially supported by the HRSA Genetics Branch (for integrated systems) and the CDC National Center for Birth Defects and Developmental Disabilities (for early hearing detection and tracking), BFCH has received a nightly electronic transfer of birth data from the Registry of Vital Statistics. Linked to the birth data, the BFCH developed the Early Childhood Data System for surveillance and tracking, incorporating newborn hearing screening, birth defects surveillance, and FirstLink, which identifies risks from the confidential portion of the birth record (e.g., related to the mother's age, infant's birth weight, and so on). Early Childhood Data System staff are also engaged in the ESM/EIM project to facilitate transfer to that technology as soon as feasible.

Beginning in 2001, the Pregnancy to Early Life Longitudinal data system (PELL) was created to link birth, hospital discharge, early childhood program, and other data for mothers and infants longitudinally. This linkage project was retrospective, beginning with births from 1998 and continuing to the present as birth files close. PELL uses only clean, closed analytic files, in contrast to the Virtual Gateway linkage, which is prospective as a child is identified for a program, and the Early Childhood Data System, which uses birth data from the electronic records submitted daily by hospitals. As these systems link over time, analytic linked files will be available for births starting in 1998.

Executive leadership and organizational endorsements

Within the MDPH, the business sponsor is Sally Fogerty, Associate Commissioner, Center for Community Health and Title V Maternal and Child Health Block Grant Director. The project was also endorsed at the level of the Commissioner and Chief Information Officer. All MDPH information technology projects are approved and regularly reviewed by the MDPH IT Business Steering

Committee, chaired by the Chief Information Officer and Associate Commissioner for Operations.

External endorsements

The Virtual Gateway was initiated as part of the Governor's eGovernment initiative with the support of the Secretary and the CIO of Executive Office of Health and Human Services (EOHHS). As part of the Virtual Gateway, the MDPH functionality also has (and is required to have) gained this endorsement. Endorsement requires compliance with a number of state and EOHHS technology standards.

Significant challenges

- 1) Compliance with all federal and state privacy and data sharing regulations across multiple programs.
- 2) Adequate funding and resources to complete the project.
- 3) Continued integration with other programs and system initiatives in a timely manner.

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