HITAC Public Health Data Systems Hearing

Interoperability with District of Columbia Office of the Chief Medical Examiner’s (OCME) Case Management System (CMS) and DC Health Vital Records Division’s Electronic Death Registration System (EDRS)

Terra (Abrams) Ankrah, MBA | May 13, 2021
Goal of the Project

Support Modernization of Mortality Reporting by Implementing FHIR-enabled Interoperability between CMS and EDRS

Future Development

Implemented December 2020

High-Level Workflow

Toxicologist clicks button in Laboratory Information Management System to transmit FHIR message containing toxicology report to CMS

OCME enters investigative report in CMS

OCME clicks button in CMS to transmit FHIR message containing report of death data to DC EDRS; CMS configured to run NCHS validations

OCME electronically certifies and submits report of death in DC EDRS; DC EDRS automatically registers record

EDRS automatically transmits daily mortality file to NCHS via STEVE II
Modernization of Mortality Reporting

• National Impact:
  – Through funding provided under the auspices of the National Vital Statistics Cooperative Program the District participated in an interoperability project that utilized FHIR standards to support the modernization of the national mortality reporting
  – FHIR messaging from CMS to EDRS facilitates more timely data transmission to local and national partners

• Local Impact within the District:
  – Streamlined processes and reduced double data entry for medical examiners to create records in the EDRS
  – NCHS Death Edit Specifications for the 2003 Revision of the U.S. Standard Certificate of Death employed within CMS prior to submission of report of death in EDRS – identification and resolution of data problems at the point of data entry
Details of the Project

• First successful implementation of interoperability between a medical examiner case management system and vital statistics electronic death reporting system in the country

• DCVRD and DC OCME completed the project during pandemic response
  – DC OCME investigated or reviewed 47.38% more cases in 2020 when compared to 2019
  – DCVRD registered 23.5% more deaths in 2020 when compared to 2019

• Direct impact to OCME
  – Improved timeliness when medical examiners create report of death in EDRS
  – Improved data quality through reduction in double data entry and subsequent data entry errors
  – Improved timeliness for registration of OCME death records within the District
  – Improved timeliness for local and national reporting of death data
Future Interoperability Projects in DCVRD

• Participation by DCVRD and DC OCME in requirements definition for the medicolegal death investigation FHIR implementation guide (toxicology system data flow to ME/C case management systems) - In progress

• Interface the laboratory information management system with DC OCME CMS utilizing FHIR R4 standards - In progress

• Interface electronic medical records systems with Electronic Birth and Death Registration Systems