

TxS2 Review Database

The TxS2 Review Database is a work-in-progress, currently in use by Public Health Region 1, Epidemiology. The purpose of the database is to serve as a tool for documenting data review of built-in and user-developed queries in ESSENCE – the syndromic surveillance analysis software that serves as point of access and data analysis of collected syndromic surveillance data in Texas.

This relational database (Microsoft Access) consists of four core tables, providing a review log, flag documentation (warnings and alerts), a flag investigation log, and links to flag-related data (e.g., attachments in the form of graphs, maps, datasets, etc.).

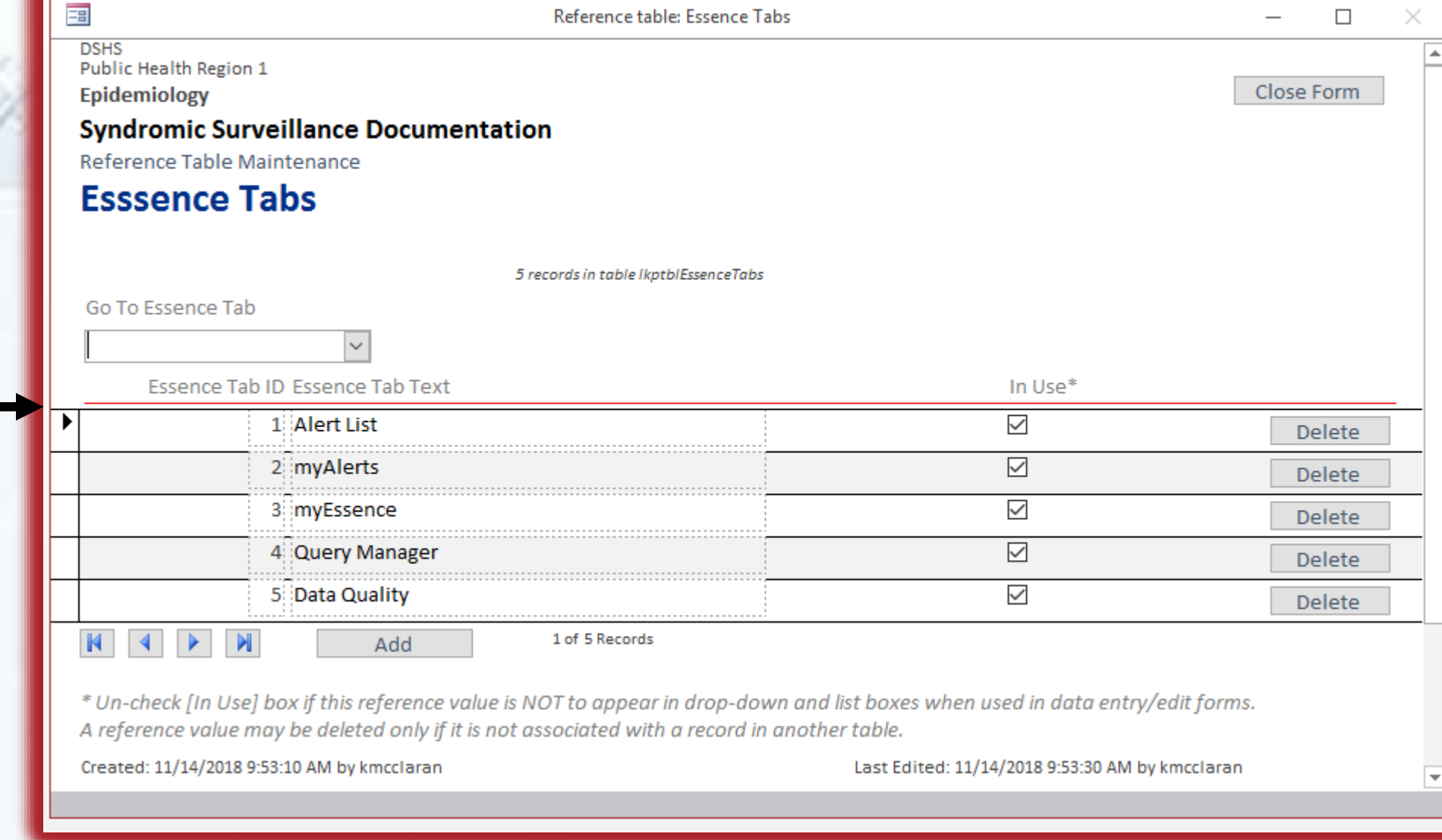
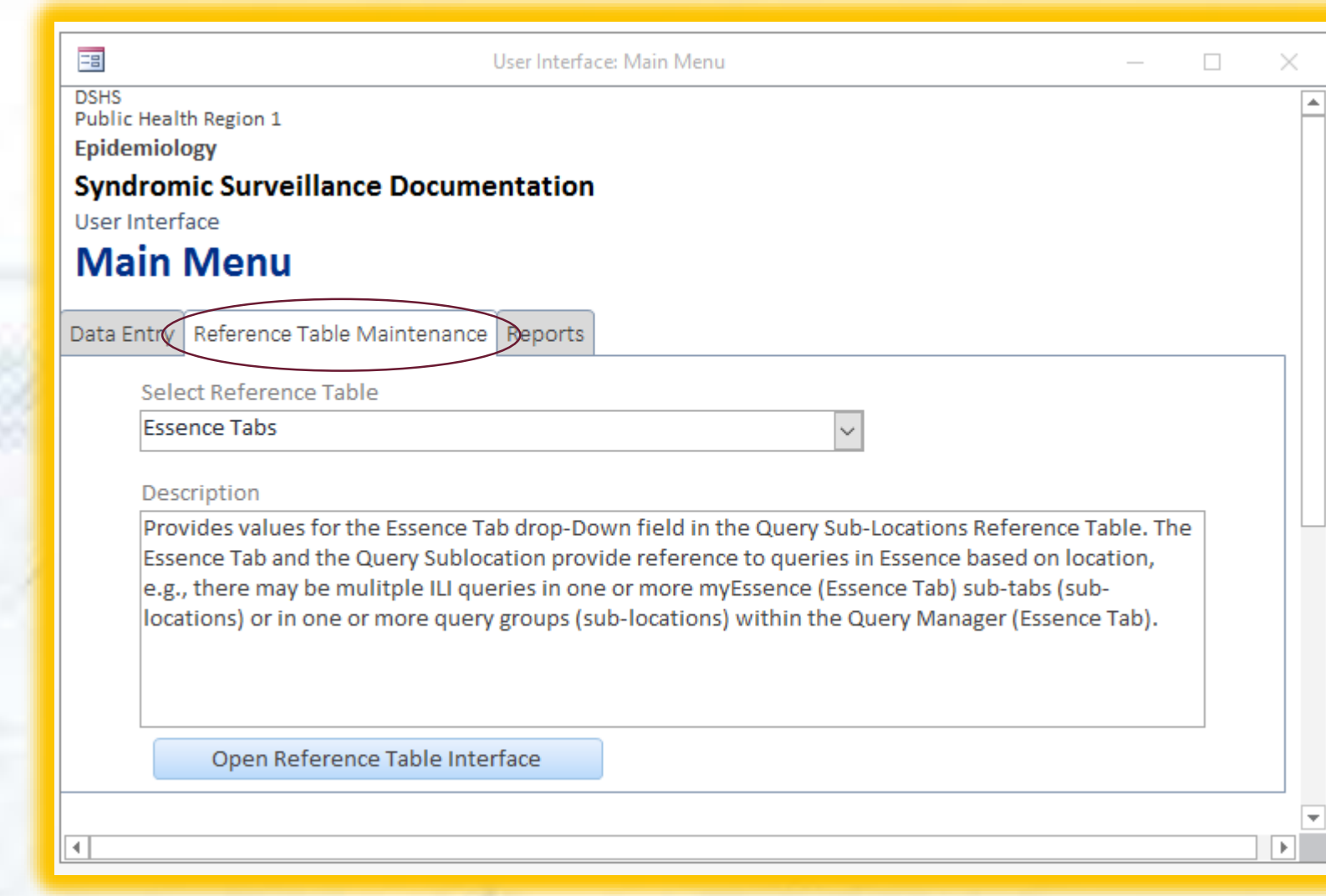
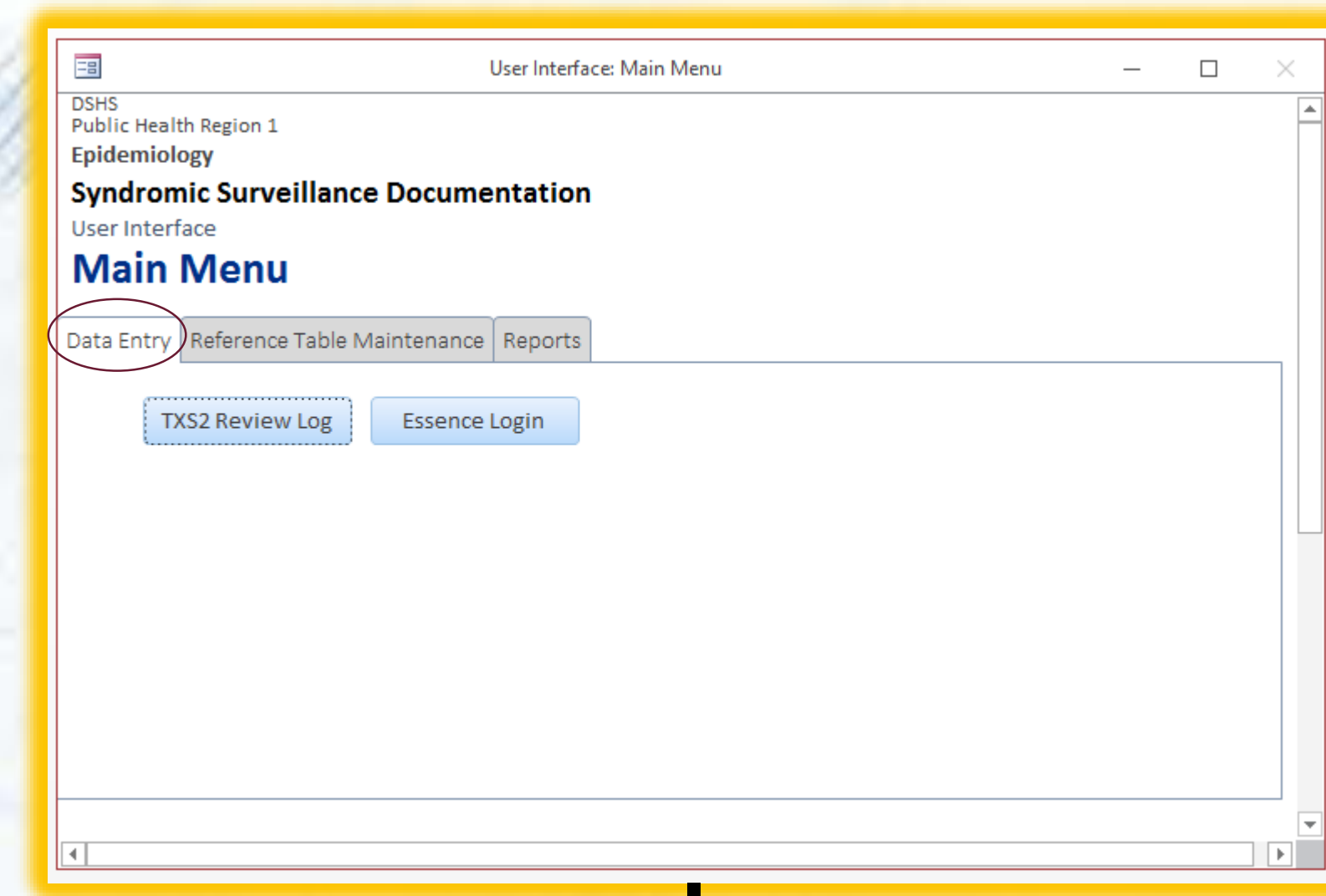
Controlled data entry is through use of cascading forms, dropdown menus, and check code. Dropdown menus are populated with data from user-accessible reference (lookup) tables. Selection of an item from a dropdown menu is stored as numerical value in the core tables. Data values in reference tables cannot be deleted through user interfaces once the value is referenced in another table (e.g., a core table or another reference table). Referential integrity is enforced in core table relationships to prevent orphan records. Safeguards (methods/warnings) prevent unintentional deletion of data (records) in core tables.

Development of this database is two-phased: Input phase. Output phase. Input phase is near completion, with additional check code, error trapping, and VBA code clean-up/documentation pending. Output phase of development has been initiated, e.g., see below left corner- Flag History. Additional outputs will include log reports, flag investigation summary reports, data quality assurance and review data analysis, e.g., frequency of documented flags (queries generating flags, type of flags, etc.) Data output will be in the form of Microsoft Access reports and Microsoft Excel worksheets (for data summary/analysis as applicable). For data output in Excel, data in Access will be linked to Excel files (will require no to little data manipulation within Excel).

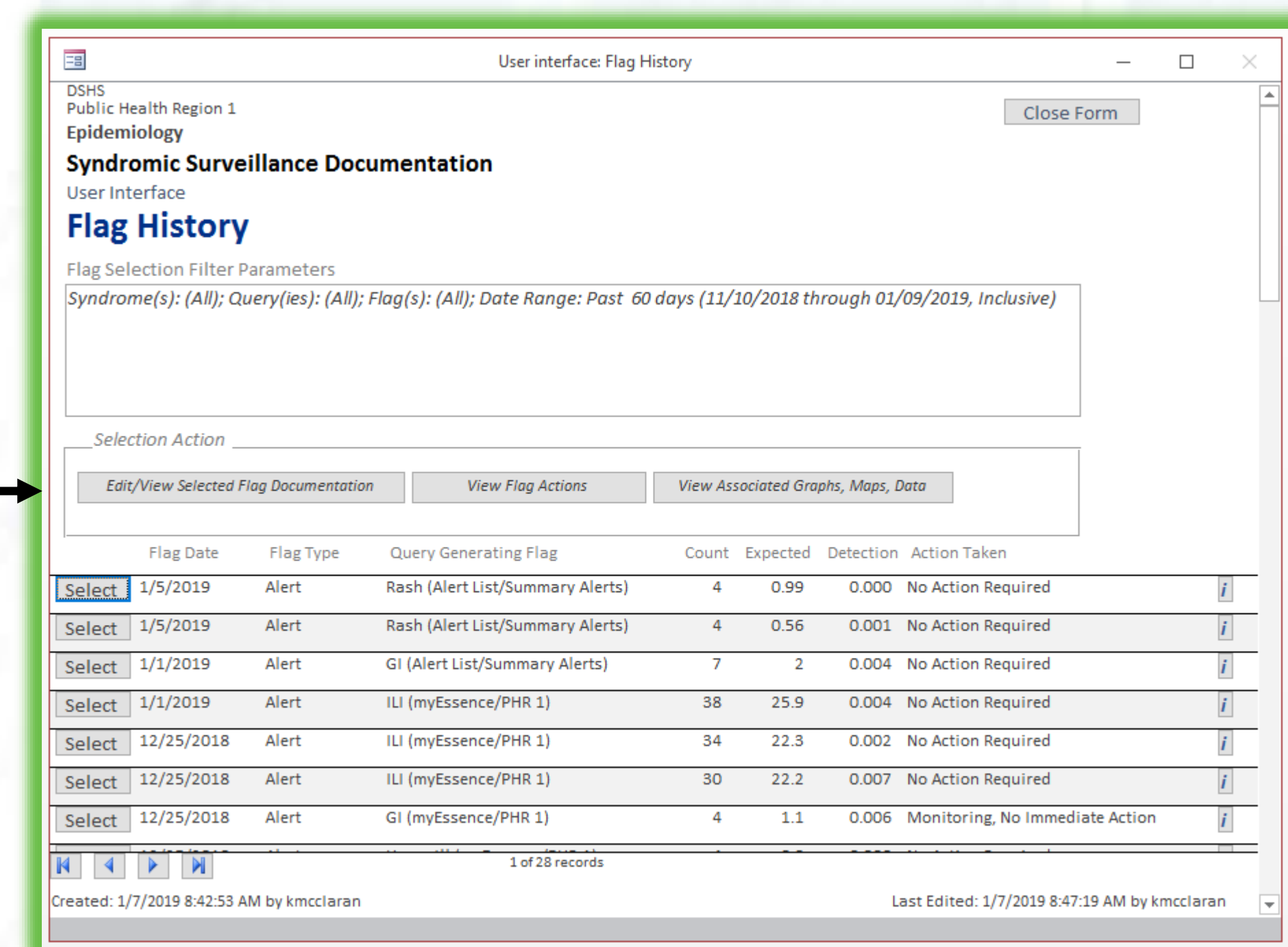
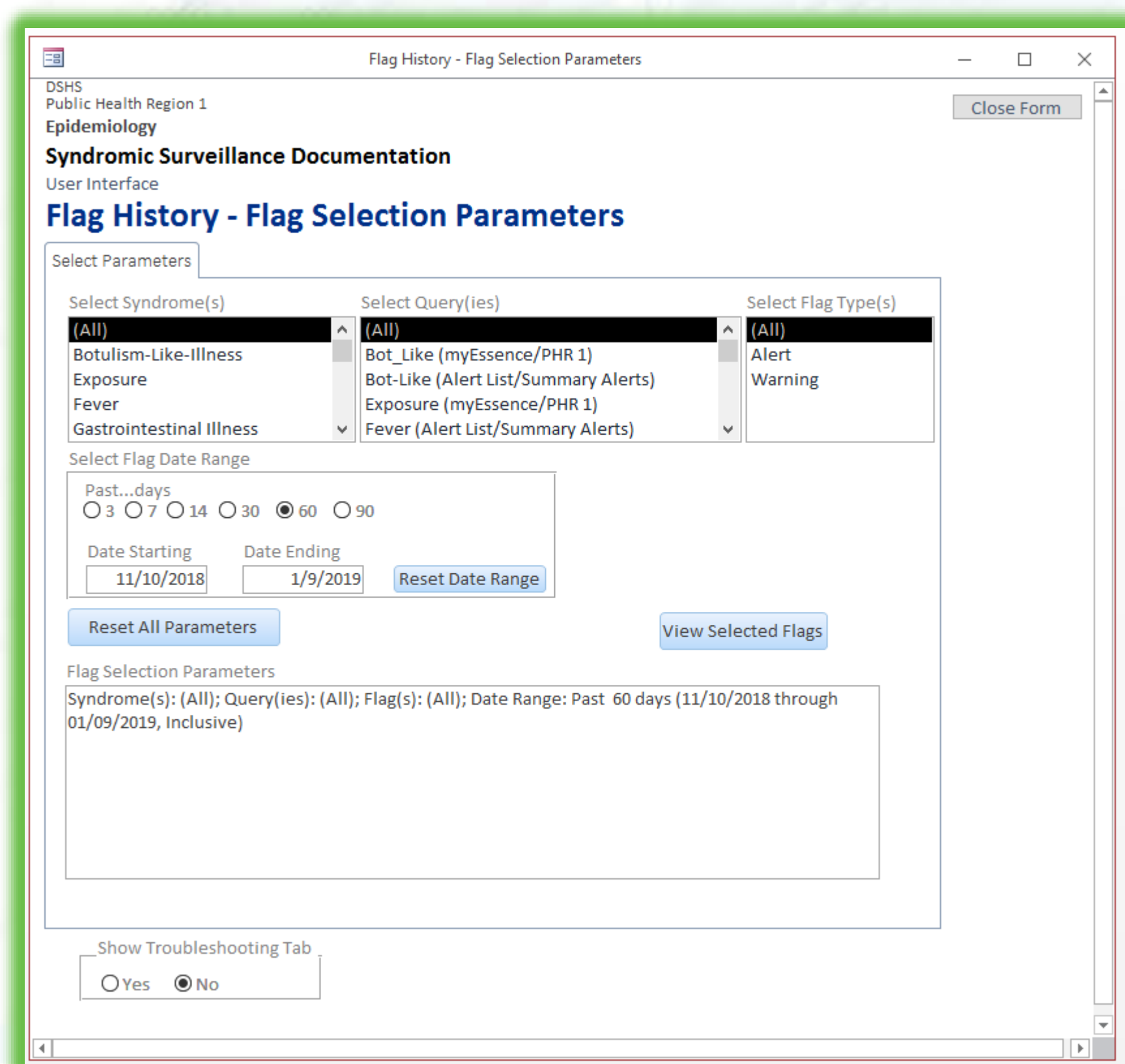
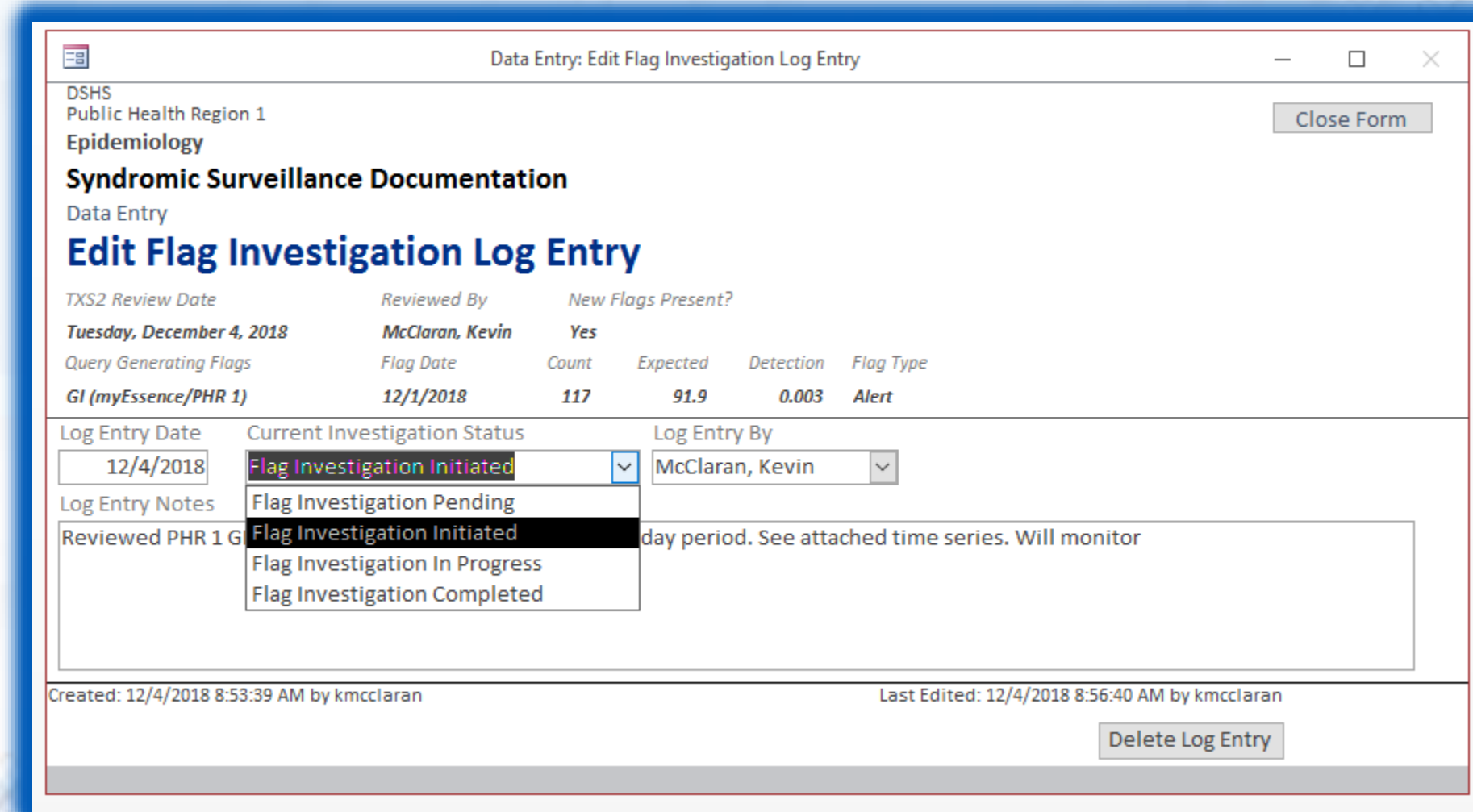
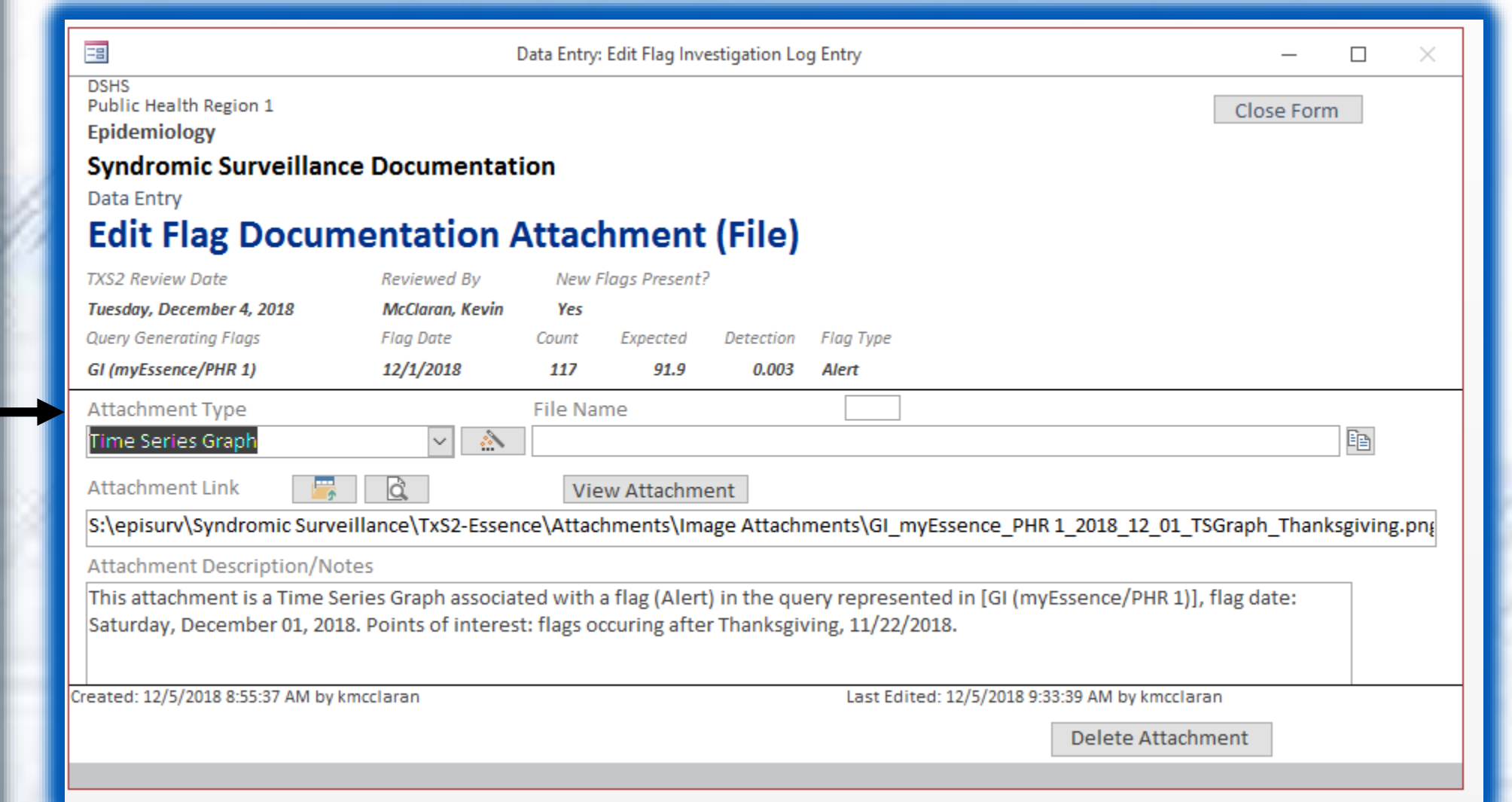
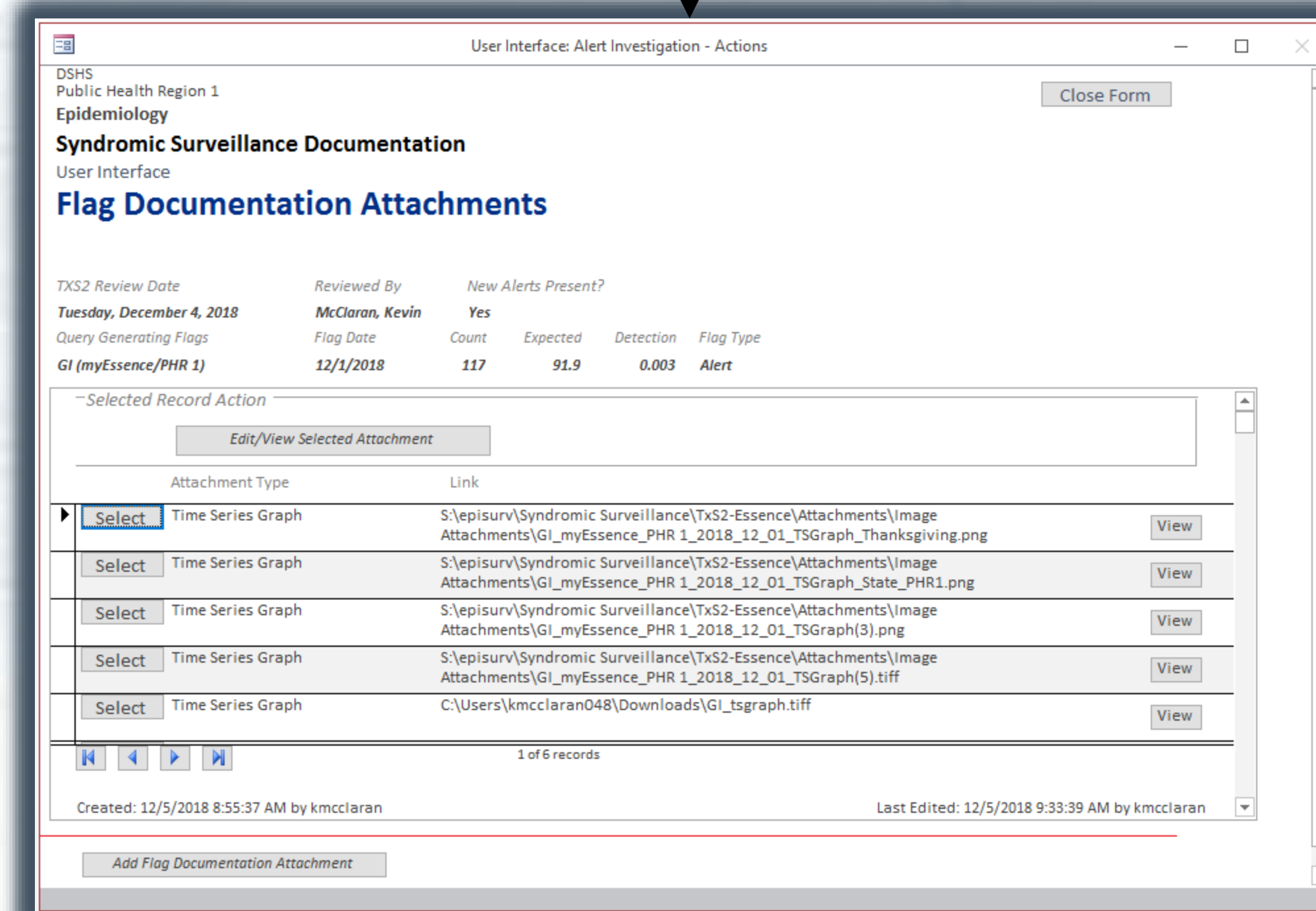
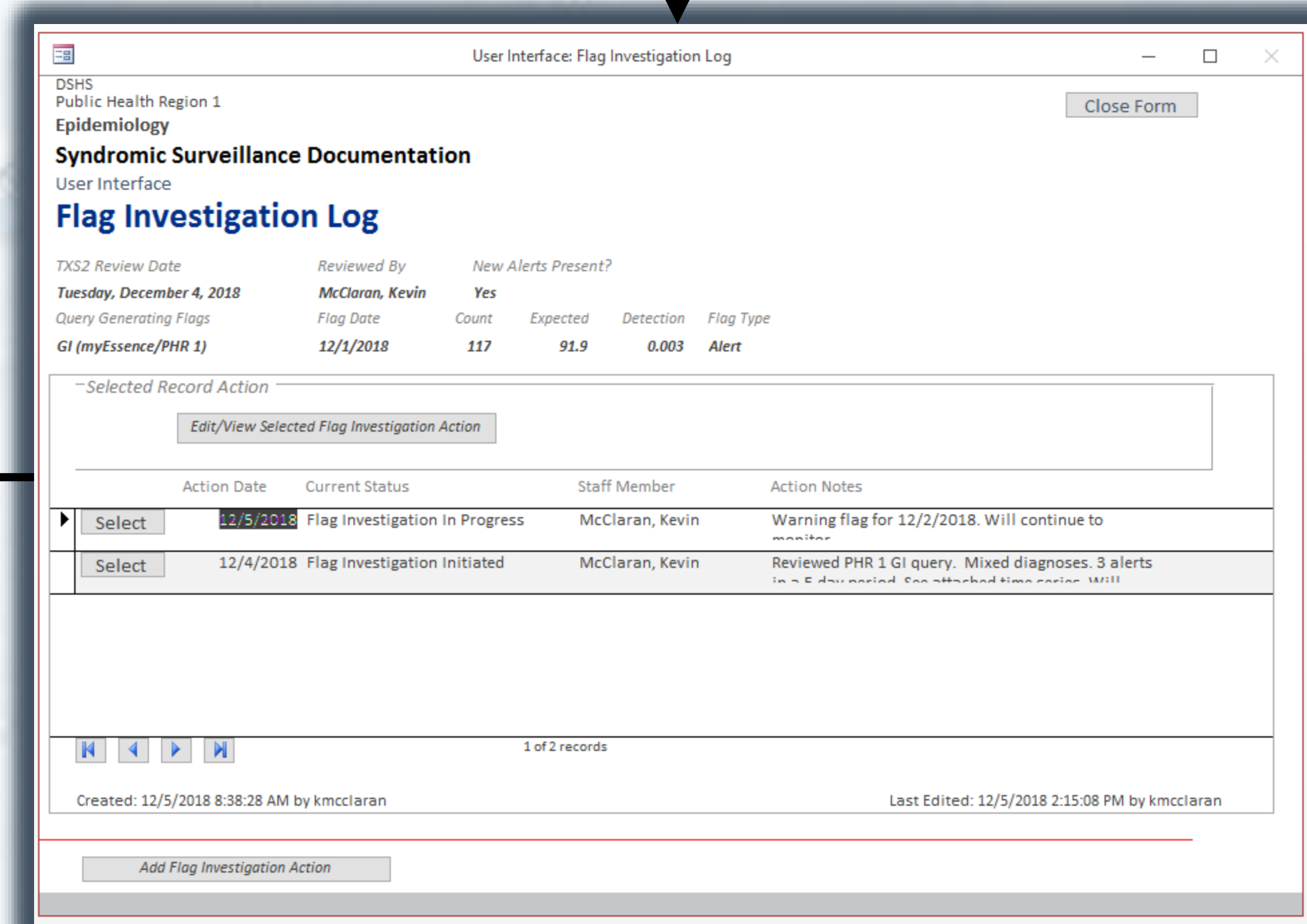
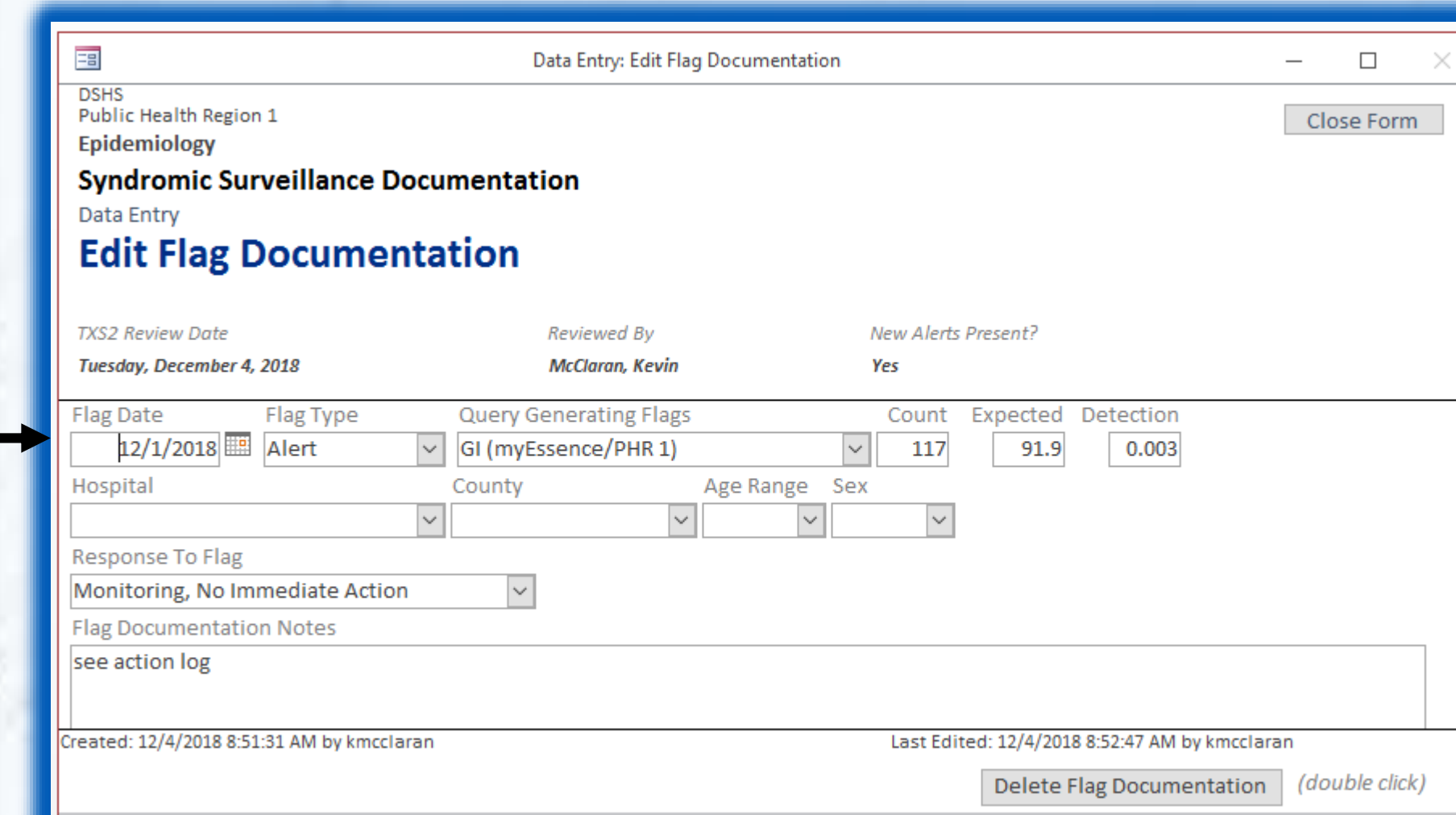
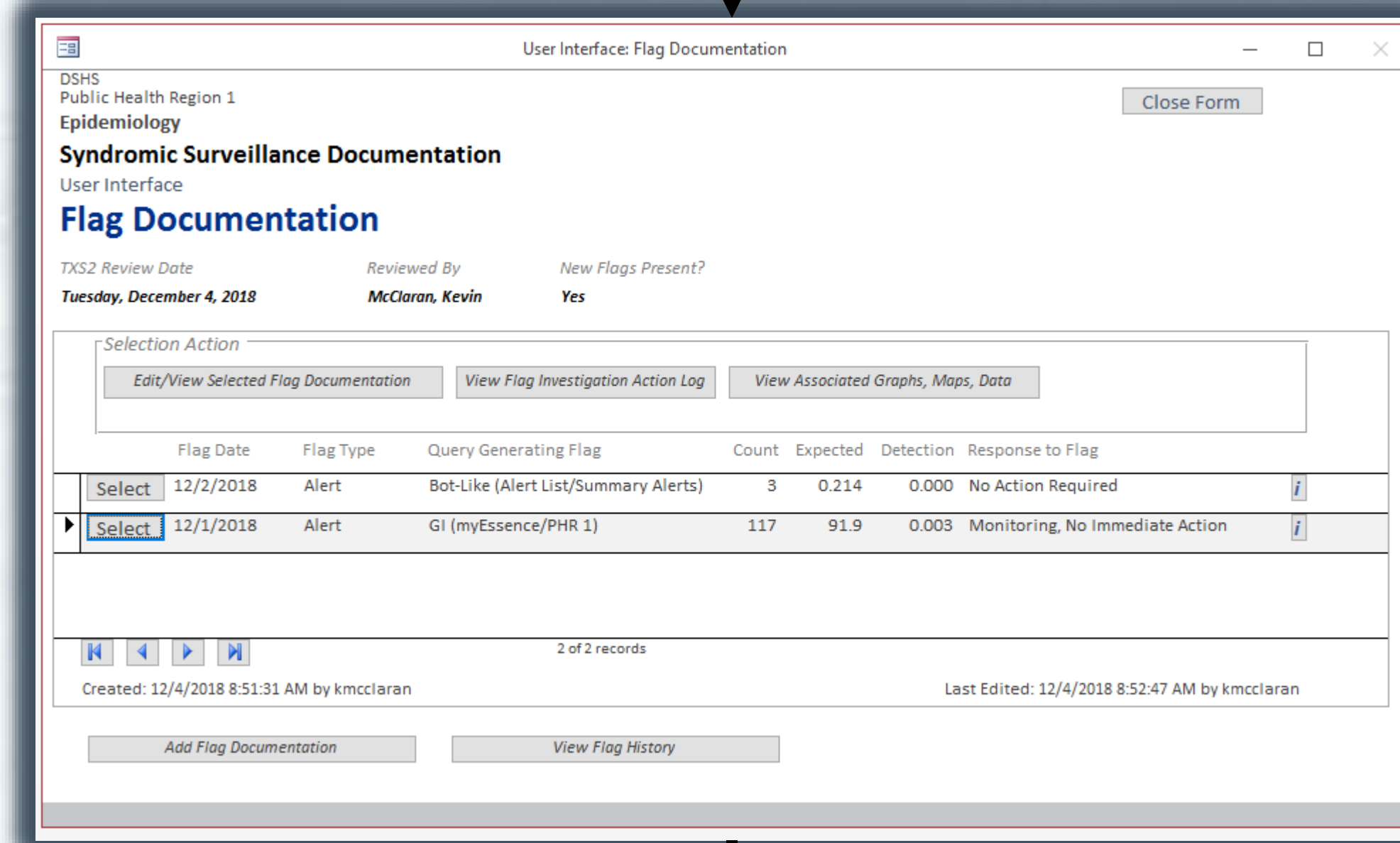
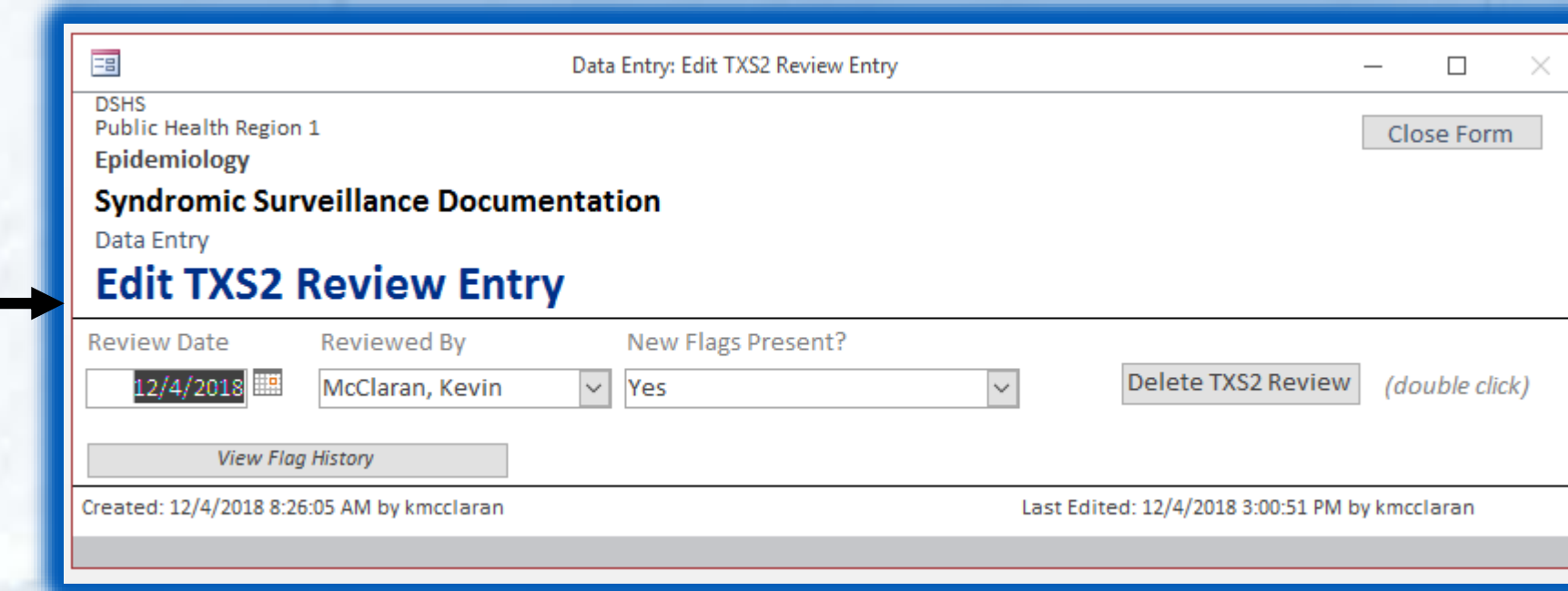
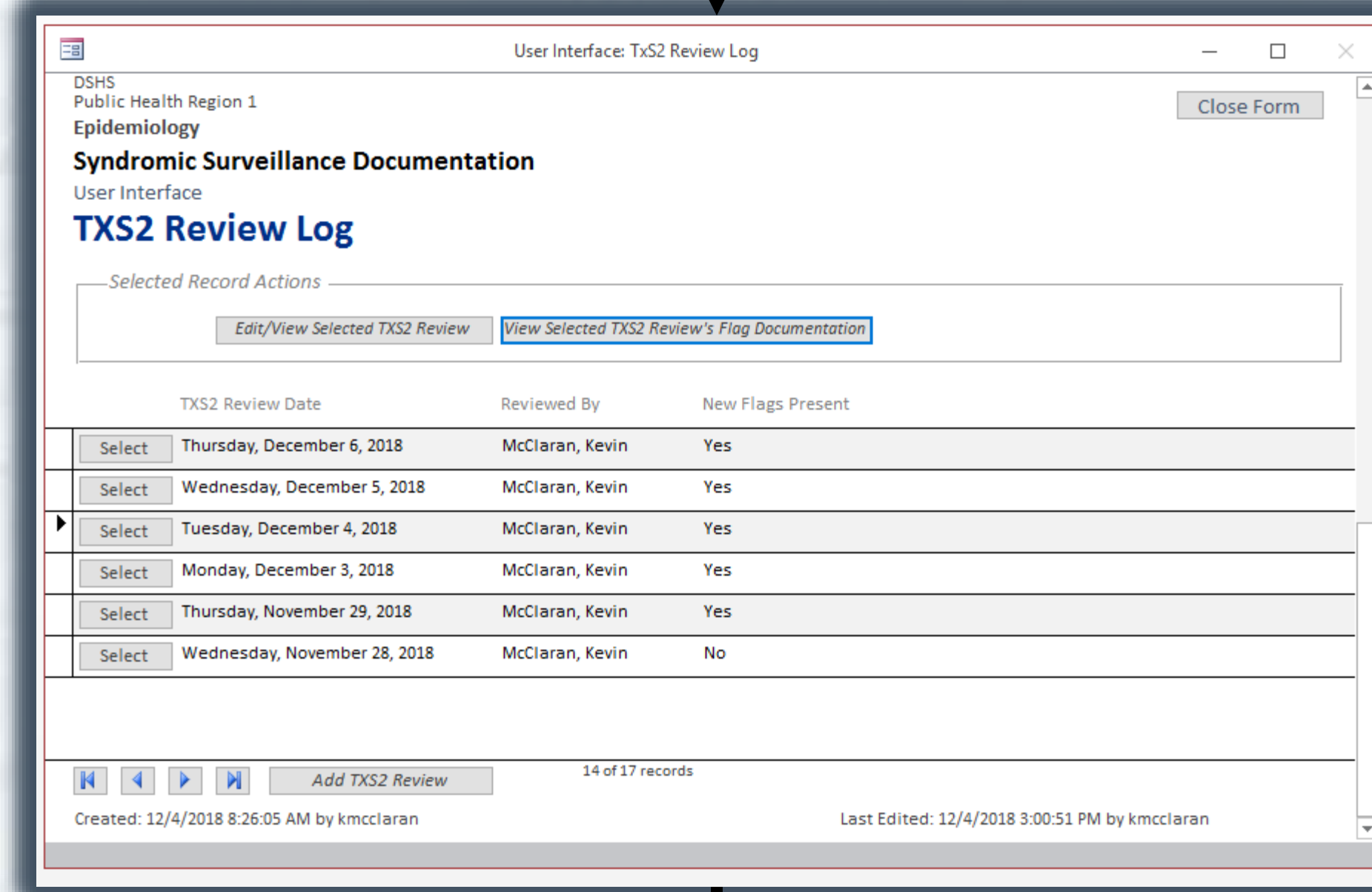
To further protect the data records, the database will eventually be split into a front end database (queries, forms, reports, code) and backend database (core and reference tables only). This will also facilitate multi-users (users that have access to shared drive folder(s) where the backend database resides).

Current Database Composition:

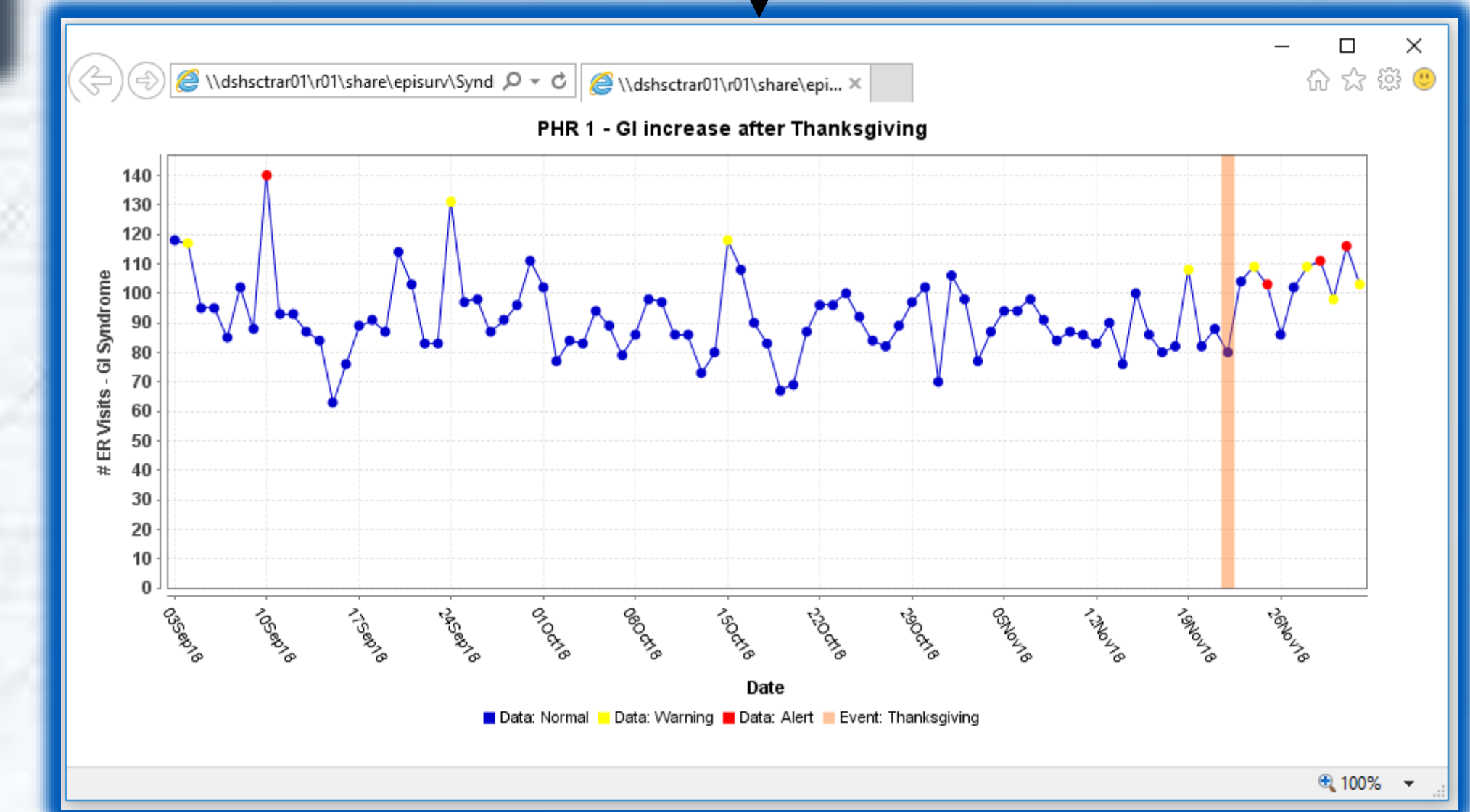
- 4 core tables
- 30 reference tables
- 71 queries (used to populate user interface forms, dropdown lists, data sources for reports)
- 57 forms (user interface forms, data entry forms, data filters, etc.)



Example of Reference Table



Example of Flag History Selection Results



Example of Flag Documentation Attachment

Questions/comments regarding information presented in this poster may be directed to:

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