Extracting, Transforming, and Loading the CIHI/DAD Discharge Data for Surgical Oncology

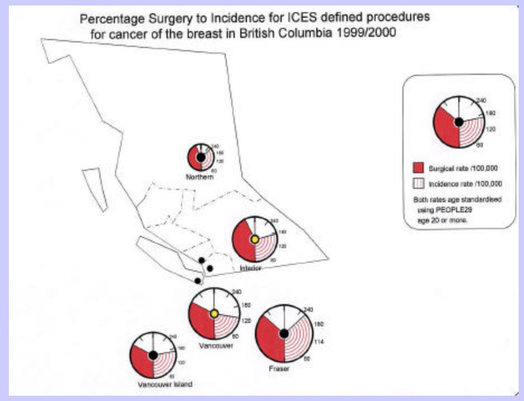
Mackinnon, MJ. **BC Provincial Surgical Oncology Council & Network, BC Cancer Agency**

The major goal of the Surgical Oncology Network is to advance the quality of cancer surgery throughout the province by:

- evaluation and optimization of services and resources by health planners
- self-education of surgeons and patients, and

To assist this goal, the best initial source of data is the CIHI/DAD hospital discharge abstract, coupled with BC Cancer Agency data.

Example



Technical Challenges:

The complex nature of the CIHI/DAD data record totally inhibits the use of reporting and statistical tools.*

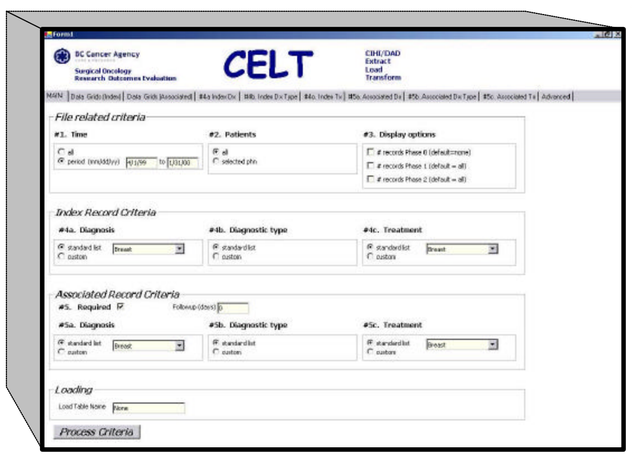
Response:

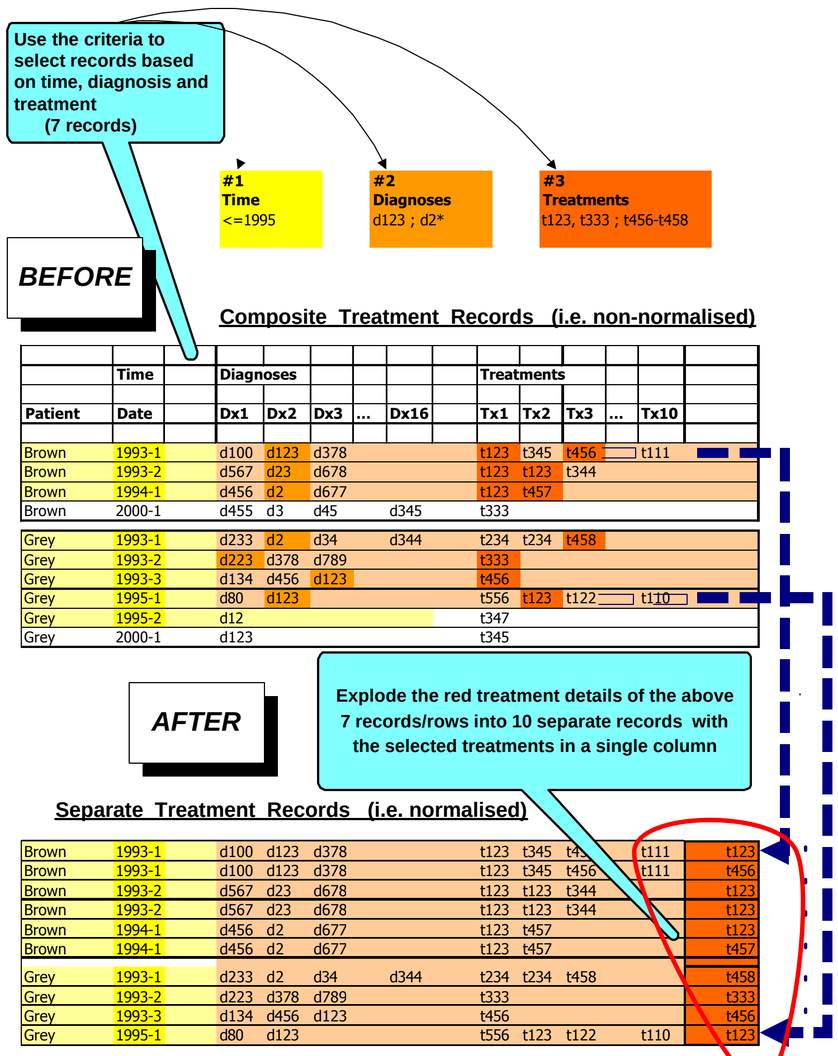
The Network wrote its own Extract, Load and Transform (CELT) program for the data to explode the 10 interventions of a discharge record into separate records.

With this, an OLAP Cube can be rolled up to the required level (i.e operative, discharge, patients).

Program Requirements:

- Independence from raw database
- Expand CIHI shorthands for multiple procedures and surgeons
- Provide online validation
- Create transaction summaries
- A user-friendly graphical interface



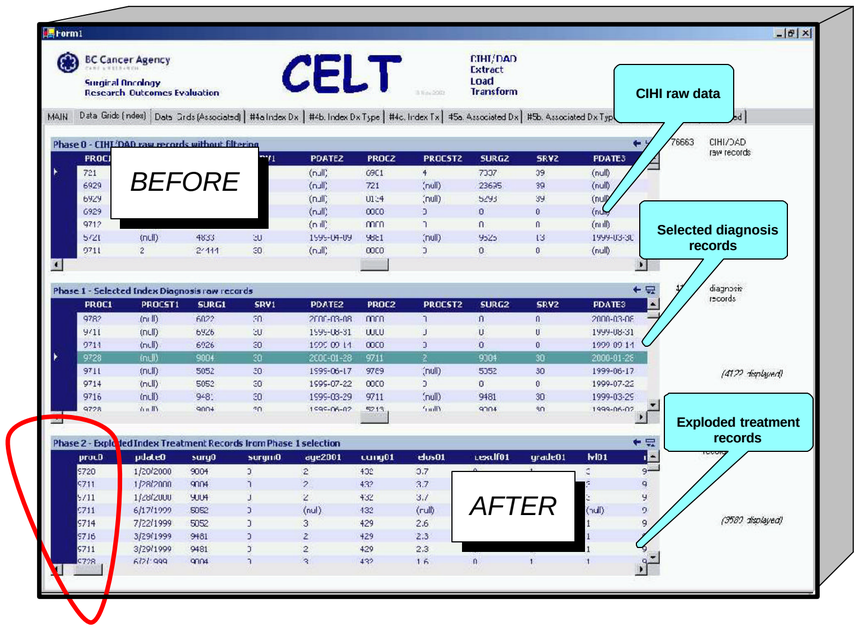


Result:

Transferable software that rapidly extracts, transforms and loads the CIHI/DAD into a table with a single column for the selected treatments.

Implementation:

- N-tier architecture separates the user interface, business logic and data functions
- MS SQL Server 2000 was used for the database
- MS Visual Basic.NET was used for programming



*Reference: Mackinnon MJ, Poole B. Leveraging the CIHI/DAD discharge data for surgical oncology. J Registry Management, 2003;30(2):46-52

The Network is now one step closer to the goal of education and planning of services, by providing greater access and convenience of use to a hitherto difficult database.

Acknowledgement: Janet Alred