Comparing and Identifying Optimal Healthcare Databases for Comparative-Effectiveness of Breast Cancer Screening

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BACKGROUND

• Comparative effectiveness research (CER) involves a thorough understanding of optimal resources for evaluating and comparing health outcomes and clinical effectiveness of medical treatments or health services.
• This requires familiarity with epidemiology, patient populations in various settings, as well as treatment patterns.
• A powerful step in achieving quality CER is to know which healthcare databases are available and their strengths and limitations.
• B.R.I.D.G.E. TO DATA® (B.R.I.D.G.E.; www.bridgetodata.org) an international resource of database profiles, may serve as one resource for CER studies.

METHODS

Case Study: CER analysts must determine whether differences exist in breast cancer diagnoses, health outcomes, and costs between women (<50 years) who receive mammograms, and those who do not.

A search was conducted in www.bridgetodata.org to identify databases collecting necessary data as shown in Figure 1.

RESULTS – Part 2

Figure 2. Criteria-based search conducted in www.bridgetodata.org for CER case study (185 Database Profiles worldwide as of October 4, 2012)

Table 1. Excerpt from B.R.I.D.G.E. comparing data elements in 3 selected databases

CONCLUSIONS

Within 185 databases profiled, 22 were eligible for this breast cancer screening study. Although this analysis was done using databases currently in B.R.I.D.G.E.®, it indicates that more databases should consider including cost & laboratory data to facilitate CER studies.

This case study demonstrates how B.R.I.D.G.E.®:
• Supports decision-making for database selection in CER studies;
• Serves as a useful tool to identify and compare health database attributes;
• Can be used as a teaching tool on healthcare databases; and,
• Serves as a template to augment databases with more useful healthcare data.
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