Breast cancer is the leading reportable cancer diagnosed among females in Missouri and a major cause of cancer deaths.

Tracking survivorship is important for fully assessing the burden of cancer and for comparing treatment outcomes and survivalship by age group, place of residence, race/ethnicity, etc.

In order to measure the impact of public health and other programs aimed at improving population health, MCR-ARC needs to become a survival registry—one with complete survival information.

MCR has recently embarked on the first step to become a survival registry by focusing on patients with breast and cervical tumors.

National Death Index (NDI) linkage provides a cost-effective method of obtaining information needed by public health and other researchers.

We conducted:
- Annual death clearance and follow-back for all cancer cases diagnosed in 2011;
- SSDI linkage on breast and cervical cancer cases diagnosed 1996 through 2011
  - This reduces the number of cases with unknown vital status or SSN.
- NDI linkage for all the remaining breast and cervical cancer cases marked alive or dead with unknown cause.

1. Background

Stage at diagnosis had a very large effect on survival, reinforcing the need for early detection.

- In situ cases (not graphed) had relative survival of ~100% while localized was 98%.
- Survival dropped to 83% for regional stage.
- It dropped dramatically for distant stage (22%); fortunately, these cases comprised a small percentage (6%) of diagnosed cases.

2. Methods

1. We conducted:
   a. Annual death clearance and follow-back for all cancer cases diagnosed in 2011;
   b. SSDI linkage on breast and cervical cancer cases diagnosed 1996 through 2011
      - This reduces the number of cases with unknown vital status or SSN.
   c. NDI linkage for all the remaining breast and cervical cancer cases marked alive or dead with unknown cause.

2. Staff reviewed linkage results to identify matches, then updated the database to include the date and cause of death.

3. We then computed survival statistics (relative survival, cause-specific survival, crude probability of death) using SEER*Stat.

3. Results

Patients without private insurance as the primary payer had a slightly lower survival for later stage breast cancer than those who had private insurance.

- Significantly lower for those with Medicaid as the primary payer.
- Percentage of cases diagnosed at regional & distant stage was higher as well.

Survival rates were fairly stable from 1996 to 2010.

- Black females fairly consistently had worse survival outcomes than white females.

4. Conclusion/Discussion

NDI linkage provides a cost-effective method of obtaining information needed to assess survivorship.

- Passive (database linkage) follow-up cheaper than traditional, active follow-up.
- By having more complete survival data, Missouri’s breast and cervical cancer control program staff can better evaluate their program/implement changes.
- Improvements are needed:
  - Eliminate disparity between black and white females and those with and without private insurance.
  - Improve survival rates over time.

5. Contact

For more information about this linkage project or about the Breast & Cervical Survival Report, contact:

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