What is Medicaid?

Texas Medicaid provides health care coverage to eligible low-income Texans.

Participants are children, their caretakers, pregnant women, the elderly, and some people with disabilities.
Notes: Based on July 2009 enrollment numbers. Newborns are less than age one; aged are 65 and older. Children with disabilities are included under child age categories.

Source: Strategic Decision Support, Texas Health and Human Services Commission.
How many Texans are covered by Medicaid?

- In any given month there are > 3 million clients enrolled in the Texas Medicaid Program.¹

- During SFY 2009, 4 million unduplicated clients received Medicaid benefits at some point during the year.²

Sources:

¹ Financial Services, Texas Health and Human Services Commission
² “Medicaid Enrollment by Month Completed Count,” Texas Health and Human Services Commission.
What does Medicaid collect?

Every single time a Medicaid client uses covered services, a claim is filed for provider reimbursement.
Demographic Data

TCR obtained demographic data on all Medicaid clients in their current data system.

11,620,457 records

- Name
- Race
- Date of Birth
- Sex
- SSN
- Full Current Address
Inpatient and Non-inpatient claims

We obtained inpatient and non-inpatient claims for 2008 and 2009

- 2,587,545 total inpatient records
  - 26,518 with a cancer diagnosis

- 48,281,612 total non-inpatient records
  - 377,596 with a cancer diagnosis
Inpatient and Non-inpatient claims (continued)

These claims files contain, among other fields:

- Client identifier codes
- Diagnoses
- Provider information
- Treatment codes
Why do we care?

This translates into a lot of data!

CERCIT Perspective:

In order to provide evidence about the effectiveness of treatment options you need access to large quantities of cancer treatment data.

Access to medical claims data such as Medicaid can serve as one tool to obtain treatment information.
Why do we care? (continued)

TCR Perspective:

- Treatment data
- Locate missing cancer cases
- Update missing demographic data in cancer records:
  - Race/ethnicity
  - Address
Linking Cancer Data to Medicaid

Some state registries have been linking Medicare data to cancer registry data for some time.

- Includes only patients 65+
- Quality of care problems are concentrated among the indigent populations

Since Medicaid clients are low-income, this data source has become of increased interest.

Medicaid Linkages – New York

New York has been exploring linking Medicaid and registry data regarding treatment. They presented some results at the 2010 NAACCR meeting:


- Linked data for 3 sites:
  - All cancers
  - Female breast
  - Colorectal
Medicaid Linkages – New York

Results:

- Substantially improved ability to assess quality of care
  - Treatment benchmarks
    - Chemotherapy, hormone therapy, and radiation
- Able to pick up treatments not reported to the Registry (e.g. radiation)

<table>
<thead>
<tr>
<th>Female Breast</th>
<th>Reported to Registry</th>
<th>Not Reported (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2,361</td>
<td>1,183 (33%)</td>
</tr>
</tbody>
</table>
Medicaid Linkage – Texas

- 2007 – 2008 Medicaid claims data

- Improve race/ethnic data where missing and to improve data received from Death Certificate Only cases.

- Examined the potential usefulness for identifying unreported cancer cases.
Medicaid Linkage - Texas

- Results
  - 45,226 Medicaid records contained a malignant cancer-related ICD-9 diagnosis code, but there was no record in the TCR data.
  - 4,086 prostate (9.0% of the non-linked Medicaid records)
  - 5,853 female breast (12.9%)
  - 3,211 colorectal (7.1%)
  - 756 melanoma (1.7%)
  - Most non-linked Medicaid records came from physicians and physician groups.
Medicaid – CERCIT


- For people that match in both files, we will extract demographic, diagnostic, and treatment data, plus some.

- This process had prepared me to BEGIN to talk about the pros and cons of using Medicaid data.
Pros

- Medicaid claims data are available
- There is a LOT of it
- It is free
- There are many more, I just can’t think of them right now
Cons

Quantity:

- There is a LOT of data
  - 4 million clients per year
  - 11 million total clients
  - 25 million claims per year

Linkage processes with files of this size are slow and complex
Cons (continued)

- The Medicaid files were designed for insurance claims processing; payments not research.

- Providers may, sometimes, select codes that are more beneficial for the client or for reimbursement.

- The Medicaid claims system is extremely complex. The “Provider Usage Manual” exceeds 1,000 pages…and changes regularly.
Cons (just a little more)

Data quality/Missing data

- Missing data
  - Client file (11 million records)
    - 1.3 million (12%) missing SSN
    - 16,352 (.1%) missing first and last name
    - 2.9 million (25%) missing race and/or sex code
  - Unique identifiers are not really unique to the person.
Cons – almost done

- Missing data
  - Non-inpatient data
    - 47,013 PCNs (1%)
    - 2,117,824 (4%) Diagnosis codes
  - Inpatient data (much better)
    - 8,250 PCNs (.3%)
    - 86 Diagnosis codes (.003%)
Good news and exciting times!!!

In spite of the few challenges we’ll have working with Medicaid the good news is:

- This is data we haven’t used in the past; it is free, available, and there is a LOT of it
- It will help us access treatment data previously unavailable
- It will help us find more missing cancer cases
- It will help improve missing demographic data in our cancer file
Questions???