# Improving Cancer Case Ascertainment

Enhancing methods of ensuring complete and accurate counts of cancer cases diagnosed in Connecticut

**The Connecticut Tumor Registry** is a population-based resource for examining cancer patterns in Connecticut. The registry's computerized data base includes all reported cancers diagnosed in Connecticut residents from 1935 to the present, as well as follow-up, treatment and survival data on reported cases. All hospitals and private pathology laboratories in Connecticut are required by law to report cancer cases to the registry.

**Mission Statement**:

To protect and improve the health and safety of the people of Connecticut by:

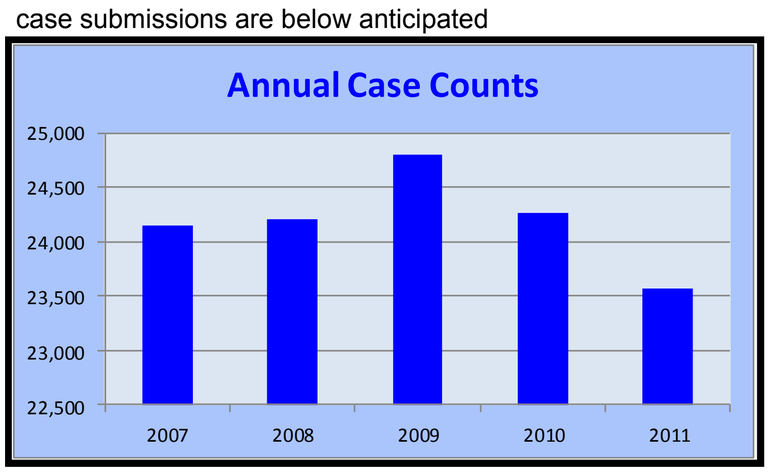
Assuring the conditions in which people can be healthy;
Preventing disease, injury, and disability, and
Promoting the equal enjoyment of the highest attainable standard of health, which is a human right and a priority of the state.

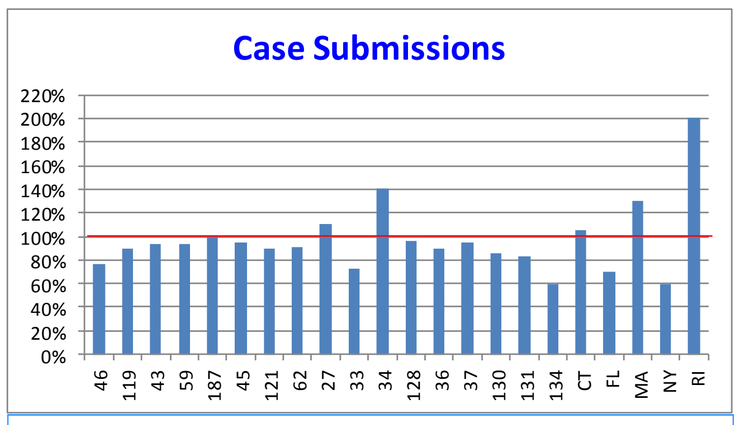
## Plan

Improve the completeness of cancer case counts

### 1. Identify the Problem

Current annual cancer case count is less than predicted by estimates from the National Cancer Institute (NCI); source case submissions are below anticipated




**AIM Statement:** Identify 945 unreported resident cases diagnosed in 2011 by September 29, 2013 to reach NCI projected case count of ≥ 23,151 cases.

### 2. Assemble the Team

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*Technical Assistance:*
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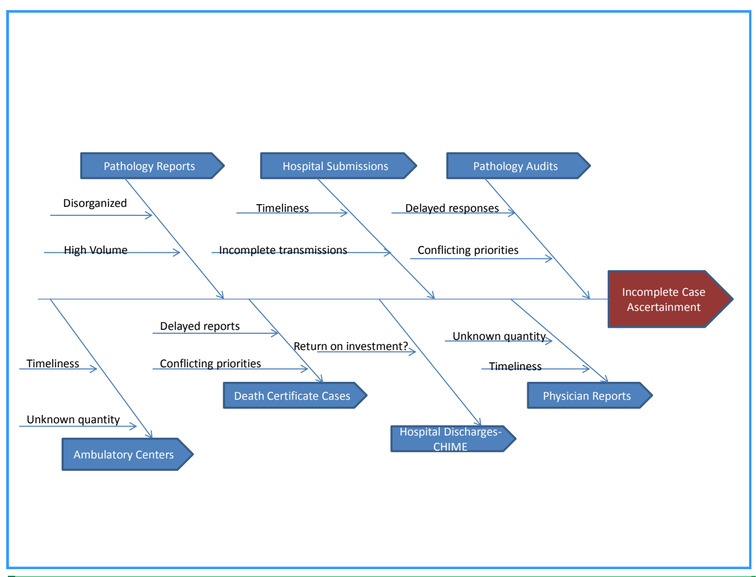
### 3. Examine the Current Approach

Multiple sources for case reports; difficult to quantify and define challenges to timely reporting




### 4. Identify Potential Solutions

- Research and identify possible non-hospital case reporting sources
- Identify cases possibly dropped during transmit between electronic hospital submission file and CTR receipt
- Identify and compile pathology reports received electronically that do not have matching case reports
- Ascertain physician reporting of cancers diagnosed in the office and determine use of out-of-state pathology laboratories
- Match hospital discharge indices (CHIME) with existing case reports to investigate cancers diagnosed by methods other than tissue examination
- Validate the usefulness of resource commitment to audit hospital casefinding procedures

### 5. Develop an Improvement Theory

- Completeness will improve if all existing sources are validated for completeness;
- Completeness will improve if new reporting sources are identified and report;
- Completeness will improve if sources of non-tissue diagnosis are identified and report;*
- Completeness will improve if current internal workflows are revised*

*Determined to be beyond project scope

## Do

Test the Theory for Improvement

### 6. Test the Theory

- Survey ambulatory surgery, radiation and oncology centers to determine awareness of reporting requirements, and to determine use of diagnostic laboratory facilities
- Survey physicians for laboratory referrals
- Match hospitals' annual case listing against cases received by the CTR (electronic linkage)
- Assess/validate benefit of hospital pathology casefinding audits
- Analyze workflow of electronic pathology reports*
- Assess potential benefit of matching CTR cases with hospital discharge indices*

*Determined to be beyond project scope

**Ambulatory Treatment Center Survey:**

- 37/47 surveys returned (79%)
- 25/37 send specimens to Conn. hospitals (68%)
- 7/37 send specimens to Conn. private labs (19%)
- 6/7 send specimens to Conn. hospitals and labs (16%)
- 3/37 read slides in-house (8%) *not previously reported*
- 31/34 specimens read in Conn. (91%)
- 3/37 report pathology results only to physicians (8%)

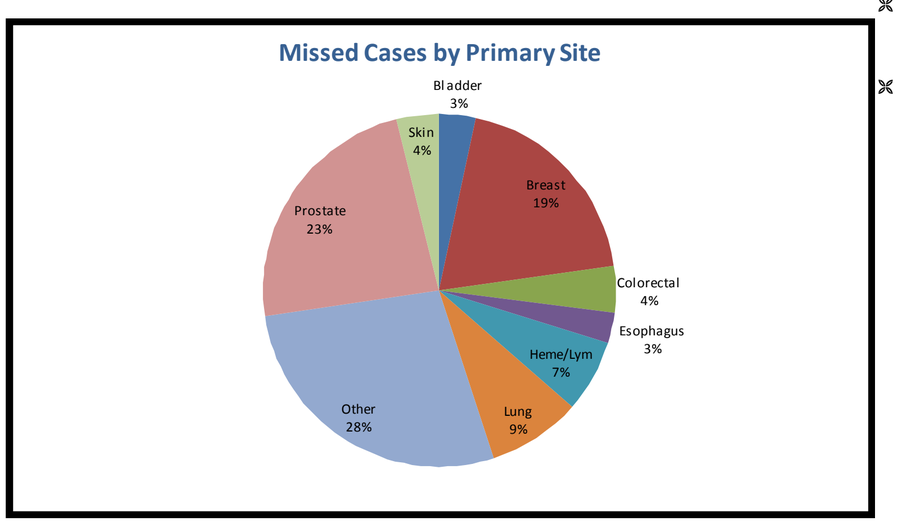
**Physician Practice Survey:**

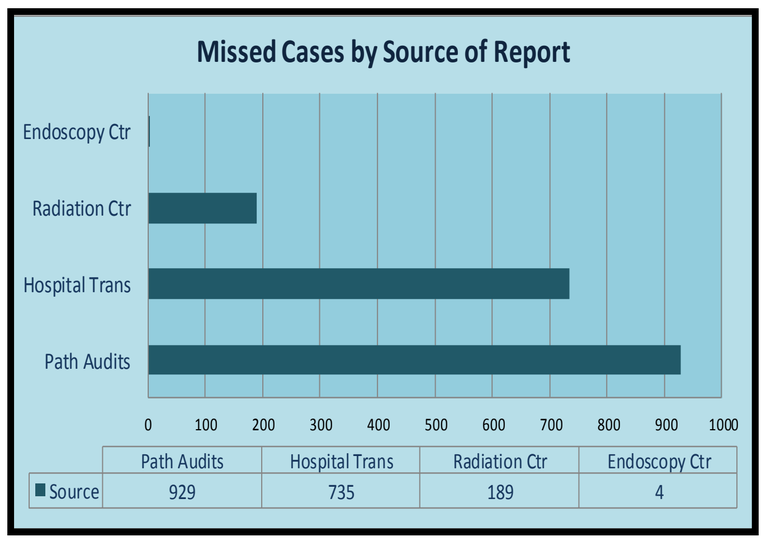
- Surveys sent to medical and radiation oncologists
- 110/239 surveys returned (46%)
- Physician referral of specimens to 10 out-of-state labs ascertained

## Study

Use Data to Study Results of the Test

### 7. Study the Results




**Primary Reasons for Missed or Delayed Cancer Case Reports:**

- Overlooked hospital pathology cases (missed reports)
- Incomplete transmission of hospital electronic files to CTR
- Independent (non-hospital) cancer treatment centers
- Cases diagnosed at out-of-state laboratories not reporting to the CTR
- Primary site of cancer does not appear to effect reporting

**Substantially Valuable QI Project!**

- 1,857 previously unreported cancer cases were identified (168% of original goal)
- New case reports represent 8% of total current annual cancer case count
- Improved accuracy of cancer incidence statistics

## Act

Standardize the Improvement and Establish Future Plans

### 8. Standardize the Improvement or Develop New

**Adopt:**

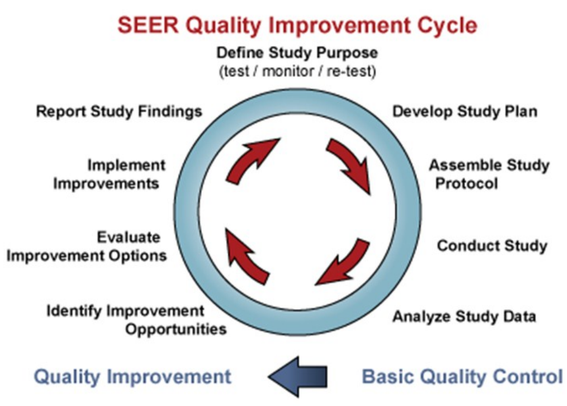
- Annual match of electronic hospital case reports to cases received by the CTR
- Establish protocol to identify and report non-hospital treatment center cases
- Survey physician specialty groups
- Continue casefinding audits

**Adapt:**

- Provide more detailed case receipts: add totals by diagnosis year
- Establish reporting timetables for hospital case reports

### 9. Establish Future Plans

- Pursue matching hospital discharge indices (CHIME) to CTR cases
  - Investigate benefit of exploring identification of non-tissue diagnoses
- Analyze and improve electronic pathology report case matching
- Brainstorm to consider additional potential casefinding sources

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