2009 NPCR Meeting, Atlanta
April 15-17

Chandrika Rao
NC Central Cancer Registry
Data Miner

• Data Miner (DM) is a point and click version of Structured Query Language (SQL).

• A functionality of the Eureka database

• Used to query the database without having to write a fancy program in SQL.
Some of the reports that can be queried...

- # cases reported by a facility
- Diagnosis date
- Primary Site
- Histology
- Abstractor
- City
- Zip code
Sample SQL Query: 2007 cases from a facility

```
SELECT m.Patient_ID, m.ssn, m.sex, m.Birth_Date, m.Date_DX, m.Year_DX, m.Tumor_ID,
m.Site, m.Laterality, m.Seg_No_Hosp, m.Hist_Type_2, m.Hist_Behavior_2, m.Hist_Type_3,
m.Hist_Behavior_3, m.Hist_Grade, m.Admission_ID, m.Hosp_No, m.Accession_No,
d.Class_Of_Case, d.race_1, d.Vital_Status,
va3.name As Lastname, va1.name As Firstname, va2.name As Middlename, va4.name as Maidenname
FROM tblAdmission_Master m JOIN tblAdmission_Detail d ON d.Admission_ID = m.Admission_ID
LEFT JOIN vwdidmissionNames as va3 ON d.Admission_ID = va3.Admission_ID AND va3.namecode_id = 117 AND va3.Primary_Name = 1
LEFT JOIN vwdidmissionNames as va1 ON d.Admission_ID = va1.Admission_ID AND va1.namecode_id = 115 AND va1.Primary_Name = 1
LEFT JOIN vwdidmissionNames as va2 ON d.Admission_ID = va2.Admission_ID AND va2.namecode_id = 116 AND va2.Primary_Name = 1
LEFT JOIN vwdidmissionNames as va4 ON d.Admission_ID = va4.Admission_ID AND va4.namecode_id = 118 AND va4.Primary_Name = 1
WHERE m.Date_DX BETWEEN '20070101' AND '20071231'
AND m.Hosp_No in ('0006360920','255360920')
ORDER BY m.Date_DX
```
Data Miner query accomplishes by Point & click; no JOIN statements
North Carolina Cancer Registry

My Assignments
- IPAQ: 0
- CFAQ: 0
- PPAQ: 0
- Followback: 0

System Messages
- 9/30/2008 11:31:44 AM
  The Eureka 7.2 release is scheduled for Friday, 10/10/2008

- 08/29/2008 11:55:55 PM
  The Eureka 7.1 release went live on 08/29/2008

Links
- American College of Surgeons
- American Fact Finder
- Ancestry.com
- AskCnet
- CCR home page
- CCR Inquiry System
- MDLook
- NAACPR
- PHIL Web Portal
- SEER
  - Volume 1
  - Volume 2
  - Volume 3
Quick Query: All admissions from a specific facility between Jan 07-Dec 07 from the Admission Table
Select fields

Data Miner

Saved queries: 2005 2006 Breast Treatment

Save this query as:

Tables: Admission

Databases: Production

Load | Save | Delete | Rename | Reset | Summary

SELECT

WHERE

Add Where

ORDER BY

Add Order By

Run Query
Selected fields can be re-ordered
Specify a range of diagnosis dates

**Data Miner**

Saved queries: 2005 2006 Breast Treatment

Save this query as: 

Table: Admission

Database: Production

<table>
<thead>
<tr>
<th>SELECT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admission.FU_Last_Type_Tum</td>
</tr>
<tr>
<td>Admission.FU_Next_Type</td>
</tr>
<tr>
<td>Admission.Hist_Text</td>
</tr>
<tr>
<td>Admission.Horm_Hosp</td>
</tr>
<tr>
<td>Admission.Horm_Sum</td>
</tr>
<tr>
<td>Admission.Hosp_Pat_No</td>
</tr>
<tr>
<td>Admission.Hosp_Ref_From</td>
</tr>
<tr>
<td>Admission.Hosp_Ref_To</td>
</tr>
<tr>
<td>Admission.Hosp_Tum_No</td>
</tr>
<tr>
<td>Admission.ICD9_Conv_Flag</td>
</tr>
<tr>
<td>Admission.OCRevisionComorbid</td>
</tr>
<tr>
<td>Admission.Immune_Hosp</td>
</tr>
<tr>
<td>Admission.Immune_Sum</td>
</tr>
<tr>
<td>Admission.Industry_88</td>
</tr>
<tr>
<td>Admission.Industry_90</td>
</tr>
<tr>
<td>Admission.Industry_Text</td>
</tr>
<tr>
<td>Admission.Last_Name</td>
</tr>
</tbody>
</table>

WHERE

NOT Admission.Date_DX = Admission.Date_DX

ORDER BY

Add Where

Add Order By

Run Query
Select the operator “Between” to specify a date range.
Specify the range of dates

**Data Miner**

Saved queries: 2005 2006 Breast Treatment

Save this query as: [Input Field]

 Tables: Admission

Database: Production

Load | Save | Delete | Rename | Reset | Summary

**SELECT**

Admission.FU_Last_Type_Turn
Admission.FU_Next_Type
Admission.Hist_Text
Admission.Horm_Hosp
Admission.Horm_Sum
Admission.Hosp_Dad_No
Admission.Hosp_Ref_From
Admission.Hosp_Ref_To
Admission.Hosp_Tum_No
Admission.ICD03 Conv_Flag
Admission.ICDRevisionComorbid
Admission.Immuno_Hosp
Admission.Immuno_Sum
Admission.Industry_80
Admission.Industry_90
Admission.Industry_Text
Admission.Last_Name

WHERE

Add Where

ORDER BY

Add Order By

Run Query
Add a second Where clause and a second condition

Data Miner

Saved queries: 2005 2006 Breast Treatment

Table: Admission

Database: Production

Load | Save | Delete | Rename | Reset | Summary

SELECT

|---------------------------|------------------------|---------------------|---------------------|--------------------|----------------------|------------------------|-----------------------|---------------------|--------------------------|--------------------------------|------------------------|---------------------|----------------------|-------------------|------------------------|---------------------|

WHERE

Add a second Where clause and a second condition

ORDER BY

Add Order By

Run Query

<table>
<thead>
<tr>
<th>NOT Admission.Date_DX</th>
<th>BETWEEN 20070101 and 20071231</th>
</tr>
</thead>
</table>
To select a specific facility
Select the operator ‘IN’
To specify a facility with two numbers...
Select the field to be “Sorted By”
Save and Run the Query

Data Miner

Saved queries: 2005 2006 Breast Treatment
Save this query: Lexington Mem Hosp 07

Tables: Admission
Database: Production

SELECT

WHERE

AND NOT Admission.Date_DX BETWEEN 20070101 and 20071231
AND NOT Admission.Hosp_No IN 0006360920,0256360920

ORDER BY

Run Query
Select “Summary” to view the results
## Data Miner Results Summary

<table>
<thead>
<tr>
<th>User ID</th>
<th>Query Name</th>
<th>File Name</th>
<th>Download</th>
<th>Rows</th>
<th>Size(KB)</th>
<th>Date Created</th>
<th>Duration</th>
<th>Purge Date</th>
<th>Status</th>
<th>Delete</th>
</tr>
</thead>
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<td>download</td>
<td>128</td>
<td>12</td>
<td>12/17/2008 12:58:53 PM</td>
<td>00:00:00</td>
<td>12/18/2008 12:58:53 PM</td>
<td>Complete</td>
<td>delete</td>
</tr>
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<td>download</td>
<td>128</td>
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<td>delete</td>
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<td>Memorial Hosp 2007</td>
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<td>download</td>
<td>128</td>
<td>12</td>
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<td>delete</td>
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<td>download</td>
<td>128</td>
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<td>00:00:00</td>
<td>12/18/2008 8:40:03 AM</td>
<td>Complete</td>
<td>delete</td>
</tr>
<tr>
<td>WTtangle</td>
<td>Ashantis prostate1234</td>
<td>fc6d0f45-b408-4ec4-9549-5e2b8ddbc7e</td>
<td>download</td>
<td>32</td>
<td>1</td>
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<td>delete</td>
</tr>
<tr>
<td>WTtangle</td>
<td>Ashantis prostate123</td>
<td>N/A</td>
<td>N/A</td>
<td>0</td>
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<td>00:00:00</td>
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<td>delete</td>
</tr>
<tr>
<td>WTtangle</td>
<td>Ashantis prostate12</td>
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<td>N/A</td>
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<td>00:00:00</td>
<td>N/A</td>
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<tr>
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<td>116</td>
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<td>00:00:01</td>
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<td>Complete</td>
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<td>1912</td>
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<td>00:00:02</td>
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<td>delete</td>
</tr>
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<td>dstucky</td>
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<td>280</td>
<td>7</td>
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<tr>
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<td>download</td>
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<td>14</td>
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<td>delete</td>
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<td>1912</td>
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<td>delete</td>
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<td>dstucky</td>
<td>2005 2006 Breast Treatment</td>
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<td>download</td>
<td>103</td>
<td>3</td>
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<td>00:00:00</td>
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<td>Complete</td>
<td>delete</td>
</tr>
</tbody>
</table>
# Data Miner Results

<table>
<thead>
<tr>
<th>Query Name</th>
<th>Data Source</th>
<th>Duration</th>
<th>Records</th>
<th>Records Per Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lexington Mem Hosp 07</td>
<td>Production</td>
<td>00:00:00</td>
<td>128</td>
<td>30</td>
</tr>
</tbody>
</table>

- **View/Edit Manage**
  - **aAccession_No**: 999999999
  - **aBirth_Date**: 19490312
  - **aDate_DX**: 20070104
  - **aLaterality**: 0
  - **aSeq_No_Hosp**: 1
  - **aSex**: 1

- **View/Edit Manage**
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  - **aDate_DX**: 20070104
  - **aLaterality**: 2
  - **aSeq_No_Hosp**: 2

- **View/Edit Manage**
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  - **aBirth_Date**: 19390915
  - **aDate_DX**: 20070105
  - **aLaterality**: 2

- **View/Edit Manage**
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  - **aDate_DX**: 20070111
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- **View/Edit Manage**
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  - **aBirth_Date**: 19380428
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- **View/Edit Manage**
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  - **aDate_DX**: 20070123
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  - **aBirth_Date**: 19300113
  - **aDate_DX**: 20070130
  - **aLaterality**: 3

- **View/Edit Manage**
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  - **aBirth_Date**: 19400626
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- **View/Edit Manage**
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  - **aLaterality**: 0

- **View/Edit Manage**
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- **View/Edit Manage**
  - **aAccession_No**: 999999999
  - **aBirth_Date**: 19340328
  - **aDate_DX**: 20070201
  - **aLaterality**: 0

- **View/Edit Manage**
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- **View/Edit Manage**
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  - **aDate_DX**: 20070202
  - **aLaterality**: 1

- **View/Edit Manage**
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  - **aLaterality**: 1

- **View/Edit Manage**
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  - **aDate_DX**: 20070213
  - **aLaterality**: 1

- **View/Edit Manage**
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  - **aBirth_Date**: 19520220
  - **aDate_DX**: 20070213
  - **aLaterality**: 1

- **View/Edit Manage**
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  - **aBirth_Date**: 19280901
  - **aDate_DX**: 20070215
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- **View/Edit Manage**
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  - **aDate_DX**: 20070216
  - **aLaterality**: 9

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  - **aDate_DX**: 20070222
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- **View/Edit Manage**
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  - **aDate_DX**: 20070228
  - **aLaterality**: 1

- **View/Edit Manage**
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  - **aBirth_Date**: 19430131
  - **aDate_DX**: 20070301
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View/Edit: Individual patient’s record

<table>
<thead>
<tr>
<th>System</th>
<th>File</th>
<th>Search</th>
<th>Merge/Relink</th>
<th>Options</th>
<th>Casefinding</th>
<th>Administration</th>
<th>Help</th>
</tr>
</thead>
<tbody>
<tr>
<td>AdmID: 834247</td>
<td>Name:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Date DxD: 01/04/2007</td>
</tr>
</tbody>
</table>

**Demographic**

**Name**
- Last: 
- First: 
- Middle: 
- Suffix: 
- Maiden: 
- Alias Last: 
- Alias First: 

**Personal**
- SSN: 
- Sex: 2 - FEMALE
- Birth Date: 10/29/1954
- Age at DX: 52
- Place of Birth: 999 - UNKNOWN
- Marital Status: 9 - UNKNOWN

**Ethnicity**
- Sp Origin: 0 - NON-Spanish
- Race 1: 01 - WHITE
- Race 2: 88 - NOT CODED
- Race 3: 88 - NOT CODED
- Race 4: 88 - NOT CODED
- Race 5: 88 - NOT CODED
- Religion: 99 - UNSPECIFIED

**Address at DX**
- Street: 767 RHODOD
- City: FLEETWOOD
- State: NC
- Zip: 28625
- County: 009 - ASHE

**Diagnostic Text**

**Physical Exam**
01/12/07 52 YOFE IN SEPTEMBER, SHE HAD A FINE NEEDLE ASP., WHICH DID NOT SHOW ANY TUMOR CELLS.

**Laboratory Tests**

**Operative Findings**
01/12/07 LEFT BREAST MASTECTOMY, RADICAL MASTECTOMY: SIZE 2.5 CM, ONE SMALL INTRAMAMMARY L NODE IS OCCUPIED BY TUMOR, TUMOR DOES NOT EXTEND INTO THE ADIPOSE TISSUE THAT SEPARATES THE BOARDER, SMALL INTRATUMOR MASS OF DUCTAL CARCINOMA IN SITU.
## Data Miner Downloads

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Size</th>
<th>Modified</th>
</tr>
</thead>
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<td>Wed Dec 17 07:30:38 2008</td>
</tr>
</tbody>
</table>
Export data into Excel

Open the file in Excel

Format the fields

Report is ready
Acknowledgements

• The North Carolina Central Cancer Registry acknowledges the Centers for Disease Control and Prevention for its support under cooperative agreement NC U58 DP000123-02 awarded to the North Carolina Central Cancer Registry.
Contact Information

• Seth Tyree, Epidemiologist
  – Email: Seth.Tyree@ncmail.net
  – Phone: 919-715-7474

• John Sammerson, Database Manager
  – Email: John.Sammerson@ncmail.net
  – Phone: 919-715-4573