1st EUBIROD Annual Meeting: "The B.I.R.O. Academy"

Dasman Centre, Kuwait City, 2nd-4th May 2009

Kuwait data for BIRO analysis

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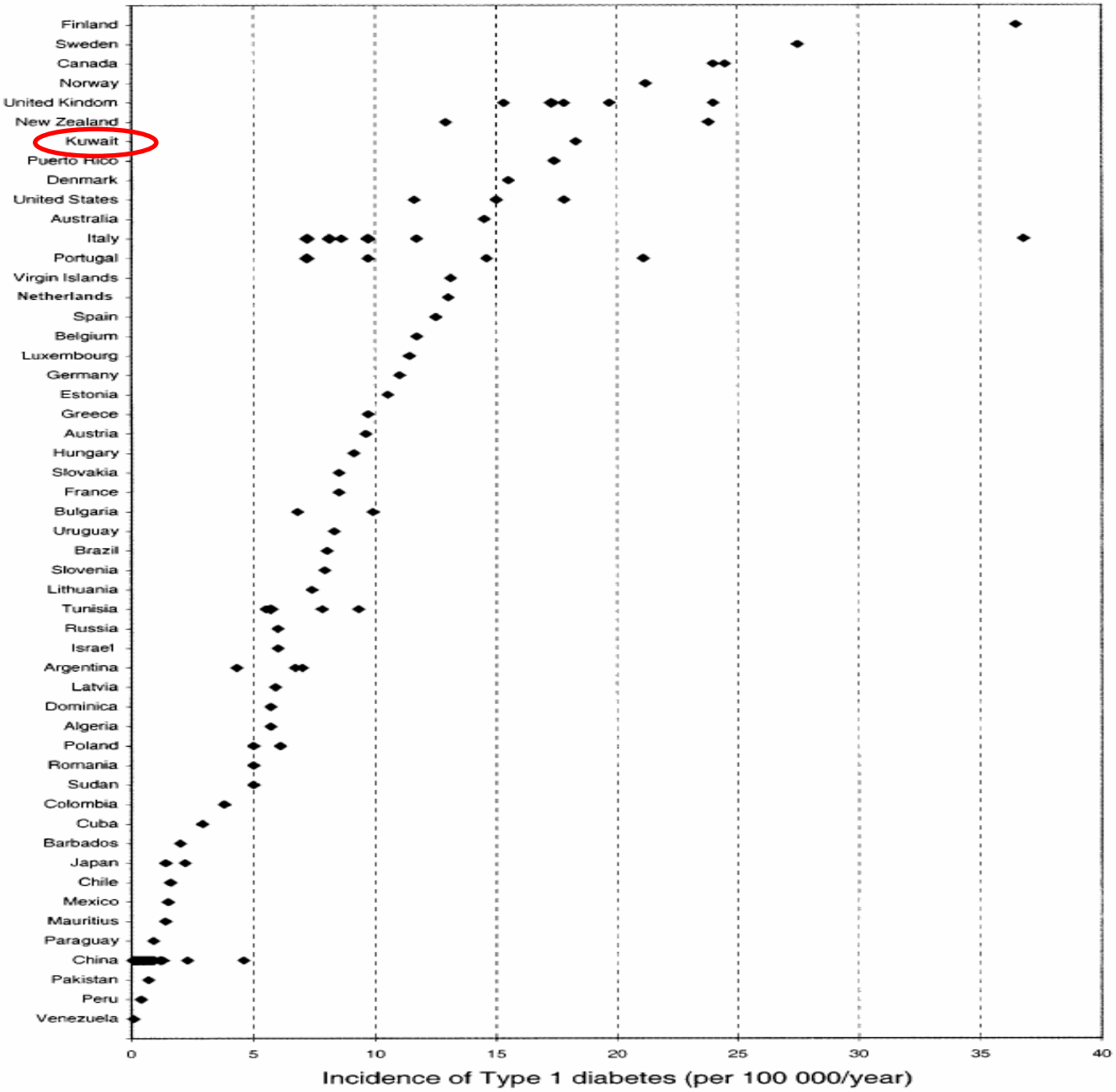
Do we have in Kuwait a "registry" for incidence of type 1 diabetes in children ?

- The WHO **Dia Mond Project** was initiated in 1990 for the study of Type 1 diabetes world-wide. Data collection only started at beginning of 1992

- Inclusion criteria:
  - Children diagnosed with Type 1 diabetes between 1 Jan 1992 and 31 Dec 1998
  - Resident of Kuwait
  - Treated with insulin from the time of diagnosis of diabetes

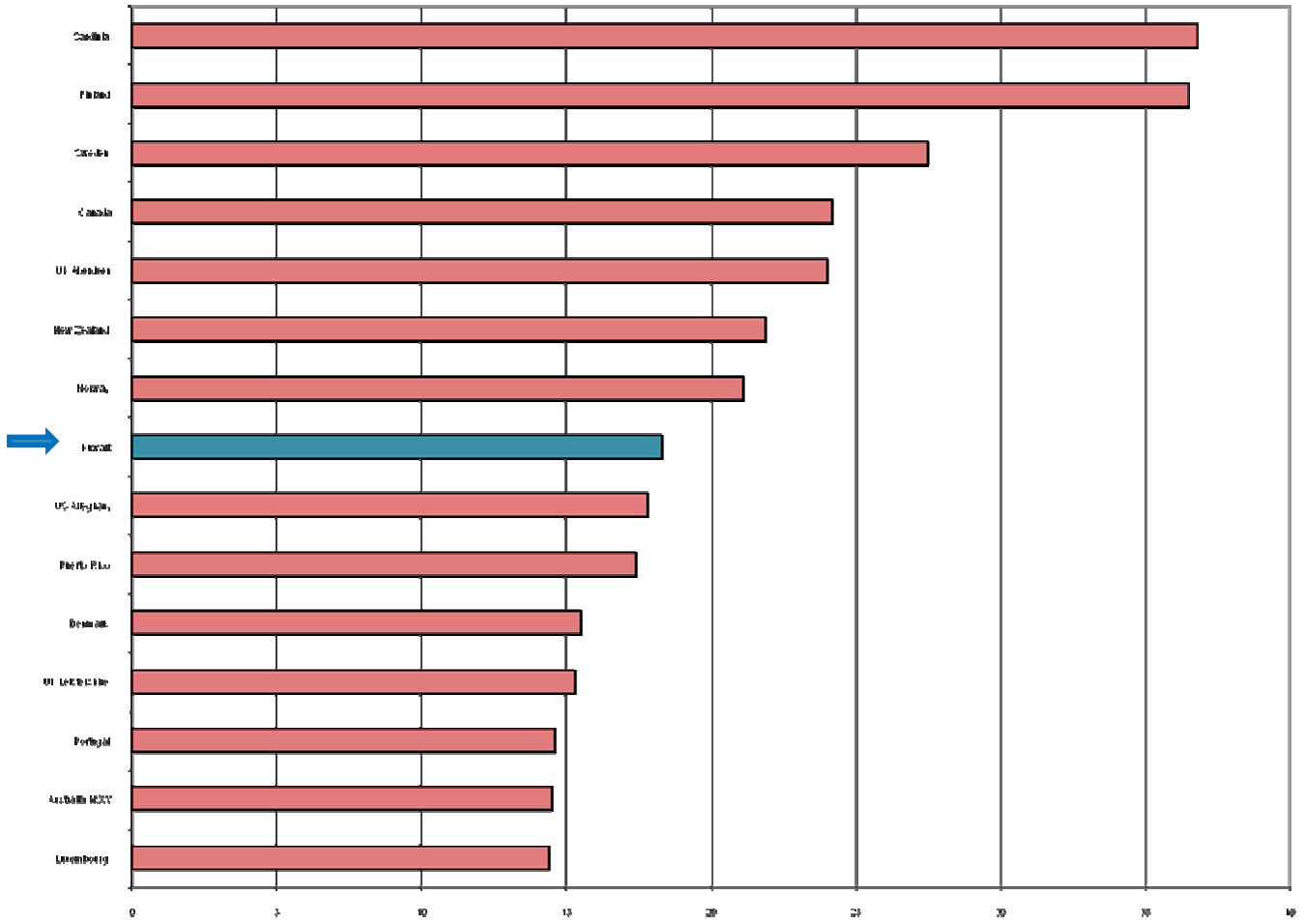
- The estimation of the degree of ascertainment based on capture-recapture method

- The primary data source was active hospital reporting
- The secondary data source was reporting by physicians from 17 independent diabetic clinics
- The degree of case ascertainment varied between 90% and 96% during the study period with an average 92.5%
- 434 children were identified
- Mean annual incidence rate for both sexes was $20.1/10^5$ children (95% CI 18.0-22.1)



DIABETES CARE, VOLUME 23, NUMBER 10, OCTOBER 2000

Age standardized incidence (per 100,000 per year) of type I diabetes in children < 15 yrs (1990-1994)



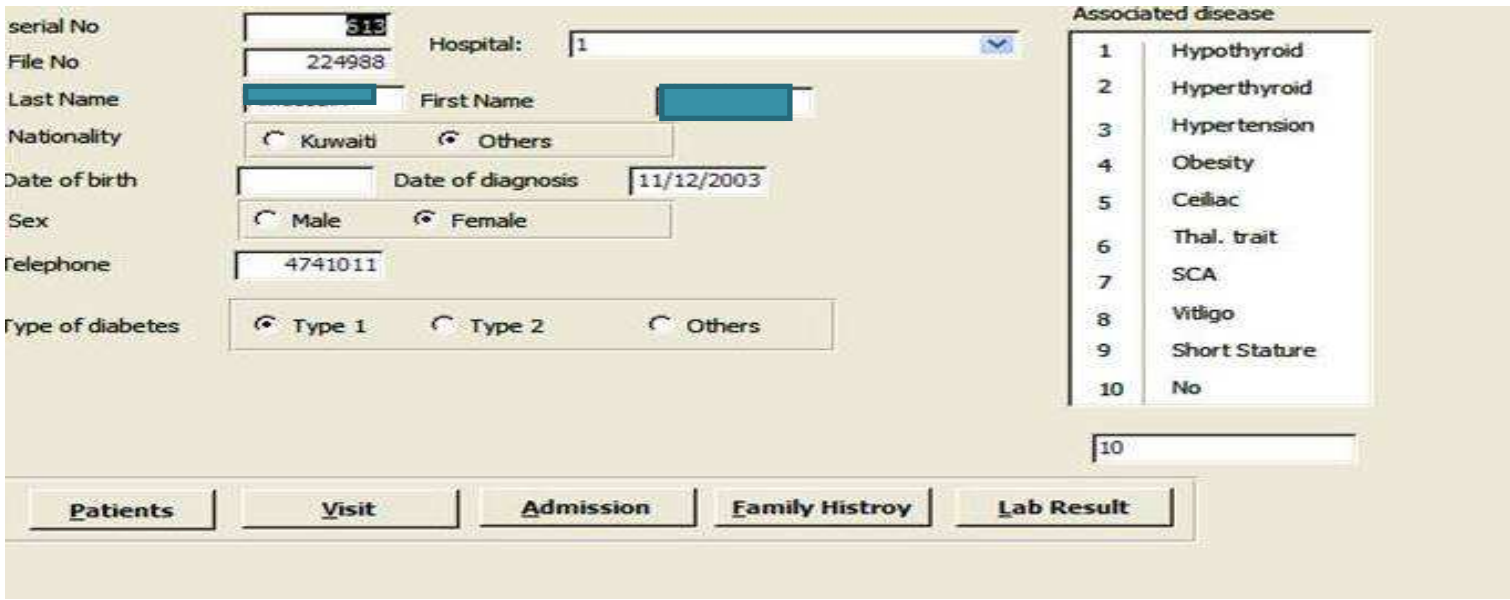
DIABETES CARE, VOLUME 2000; 23: 1516-1526

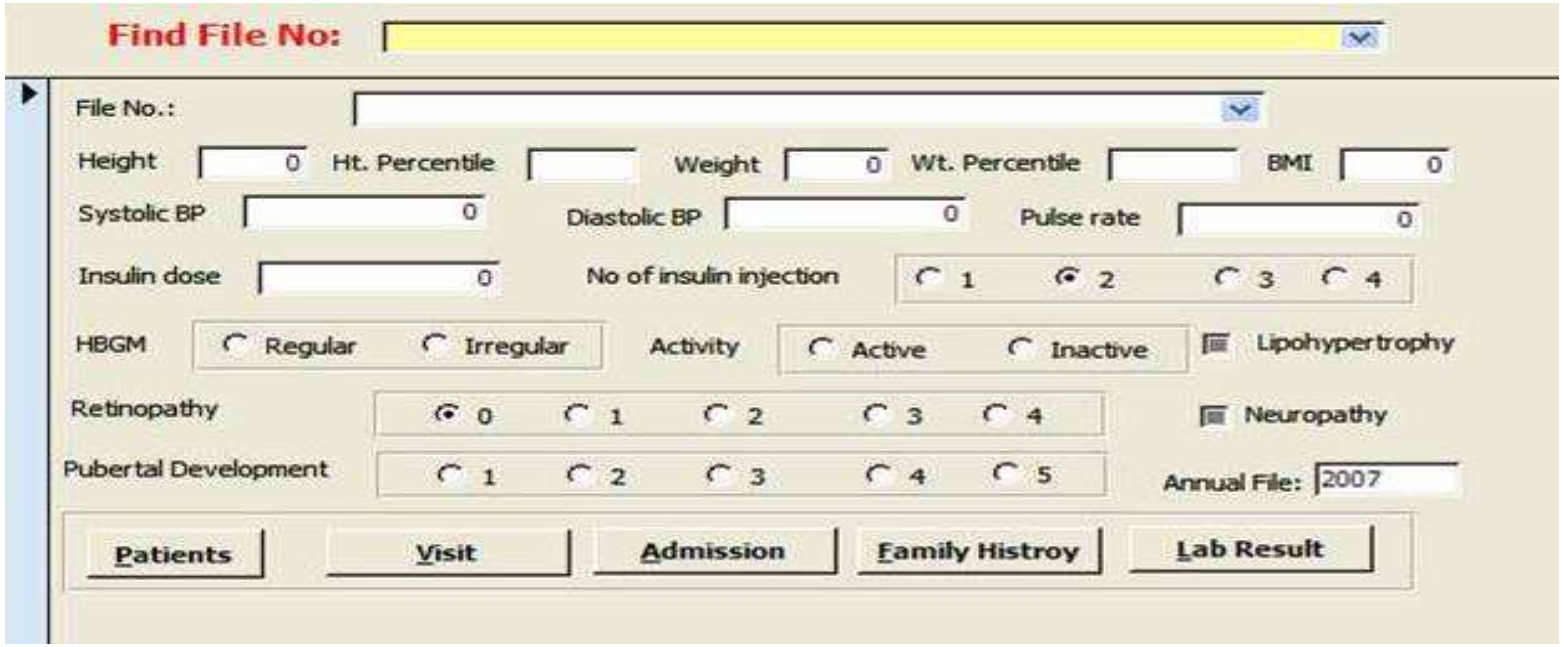
WHO **Dia Mond Project**

- The registry was part of Dia Mond initiative and was stopped at the end of the project
- Outdate software for data collection
- The data collection is still ongoing paper data forms
  - Comprehensive in some centers, irregular in others
  - No registry for children over 12, referred to adult service and the primary care centers

Al-Amiri Program for Registry

- Established since 1998
- Registry of children with diabetes including yearly newly diagnosed cases admitted to the paediatric diabetes care unit
- The goals:
  - Registry of children with diabetes in Al-Amiri
  - Follow up the progression of diabetes
  - Follow up of long term complications
  - Improvement in quality care


serial No
513
File No
224988
Hospital:
1
Last Name
First Name
Nationality
Kuwaiti
Others
Date of birth
Date of diagnosis
11/12/2003
Sex
Male
Female
Telephone
4741011
Type of diabetes
Type 1
Type 2
Others
Associated disease
1 Hypothyroid
2 Hyperthyroid
3 Hypertension
4 Obesity
5 Ceiliac
6 Thal. trait
7 SCA
8 Vitligo
9 Short Stature
10 No
10
Patients
Visit
Admission
Family Histroy
Lab Result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Insulin dose
0
No of insulin injection
1
2
3
4
HBGM
Regular
Irregular
Activity
Active
Inactive
Lipohypertrophy
Retinopathy
0
1
2
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Neuropathy
Pubertal Development
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2
3
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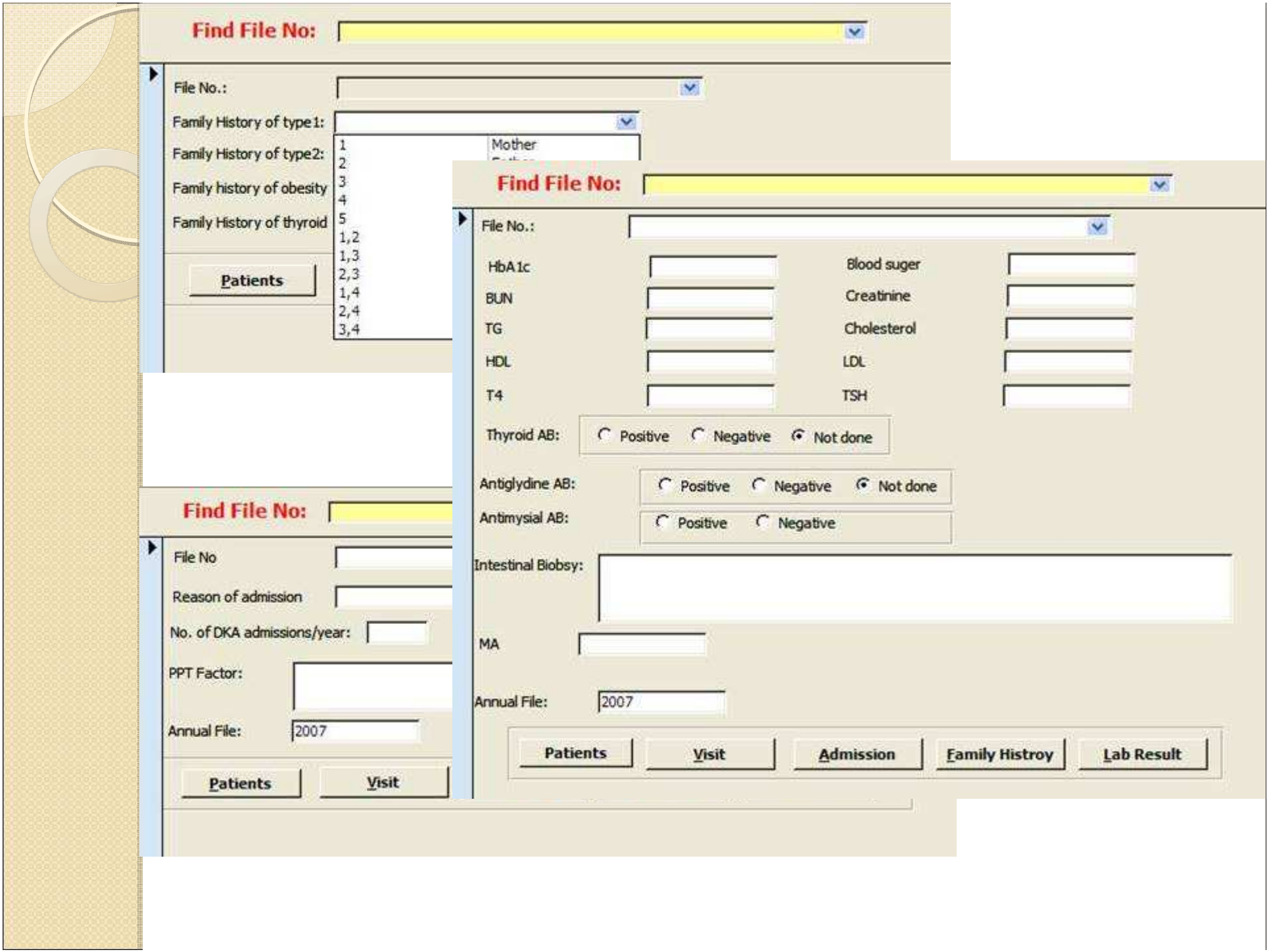
Annual File:
2007
Patients
Visit
Admission
Family Histroy
Lab Result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Family History of type2:
Family history of obesity
Family History of thyroid
Patients
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2
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3,4
Mother
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Blood suger
BUN
Creatinine
TG
Cholesterol
HDL
LDL
T4
TSH
Thyroid AB:
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Negative
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Antiglydine AB:
Positive
Negative
Not done
Antimysial AB:
Positive
Negative
Intestinal Biobsy:
MA
Annual File:
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Patients
Visit
Admission
Family Histroy
Lab Result
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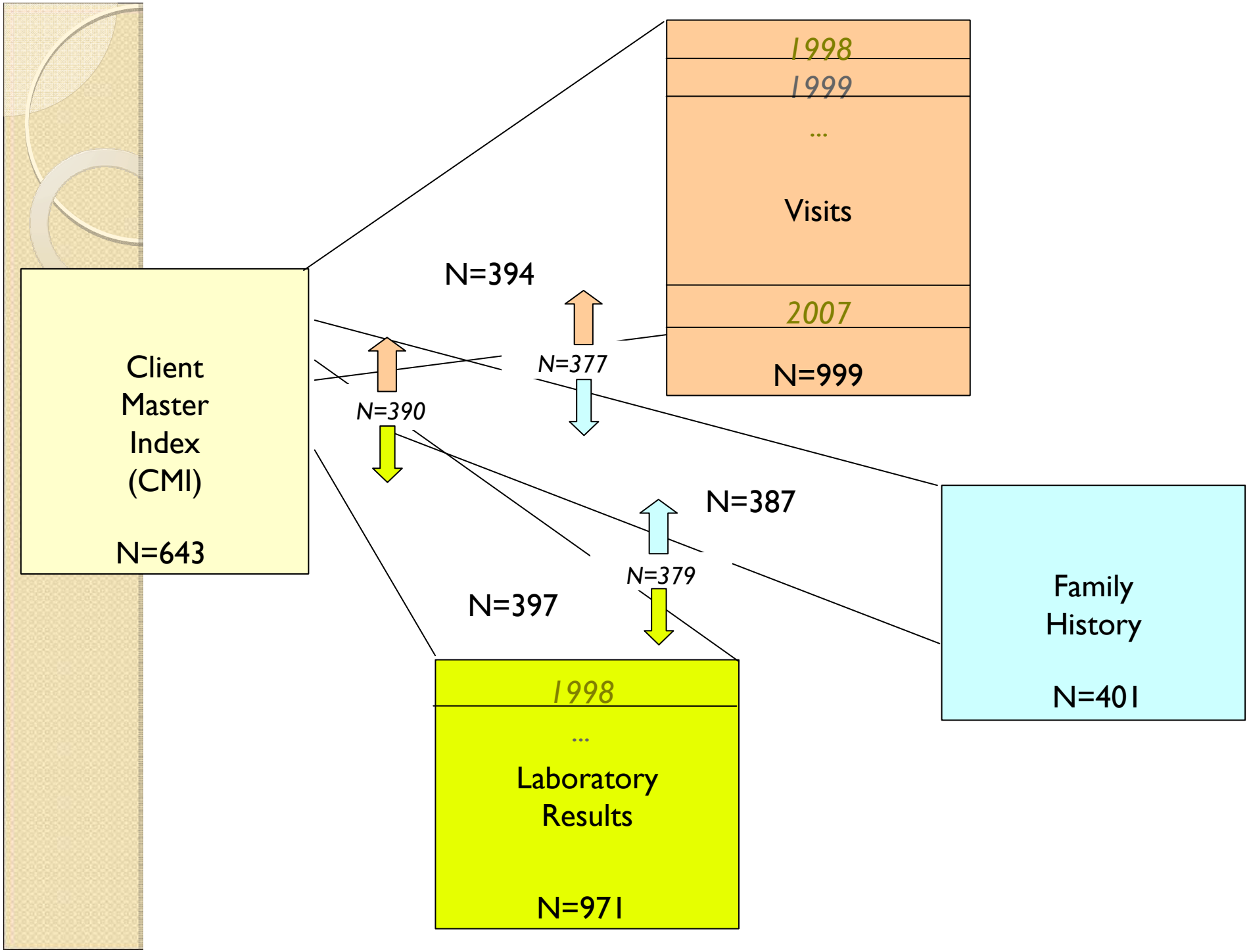
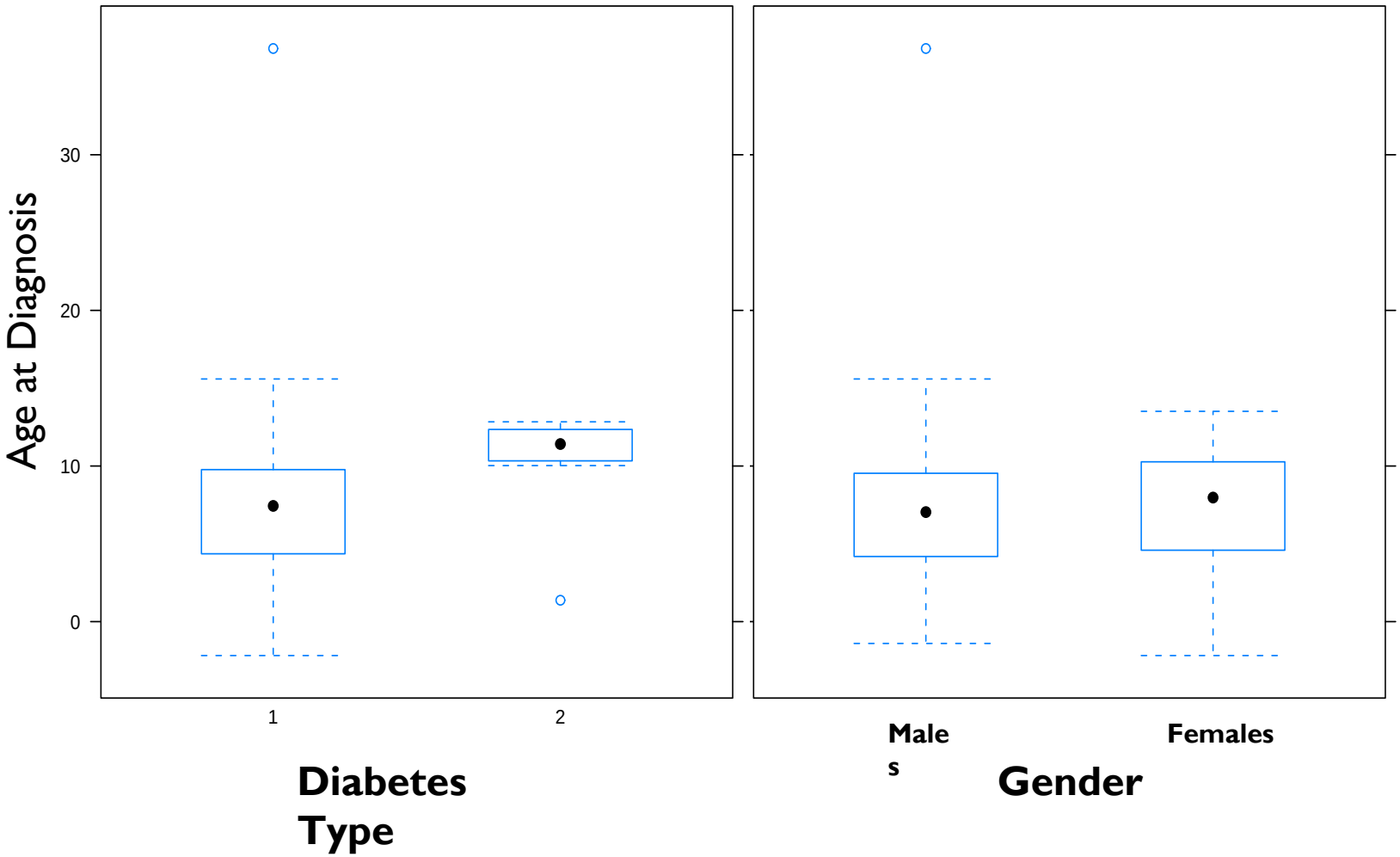
Patients
Visit


1998
1999
...
Visits
2007
N=999
N=394
N=377
Client
Master
Index
(CMI)
N=643
N=390
N=387
N=379
N=397
Family
History
N=401
1998
...
Laboratory
Results
N=971

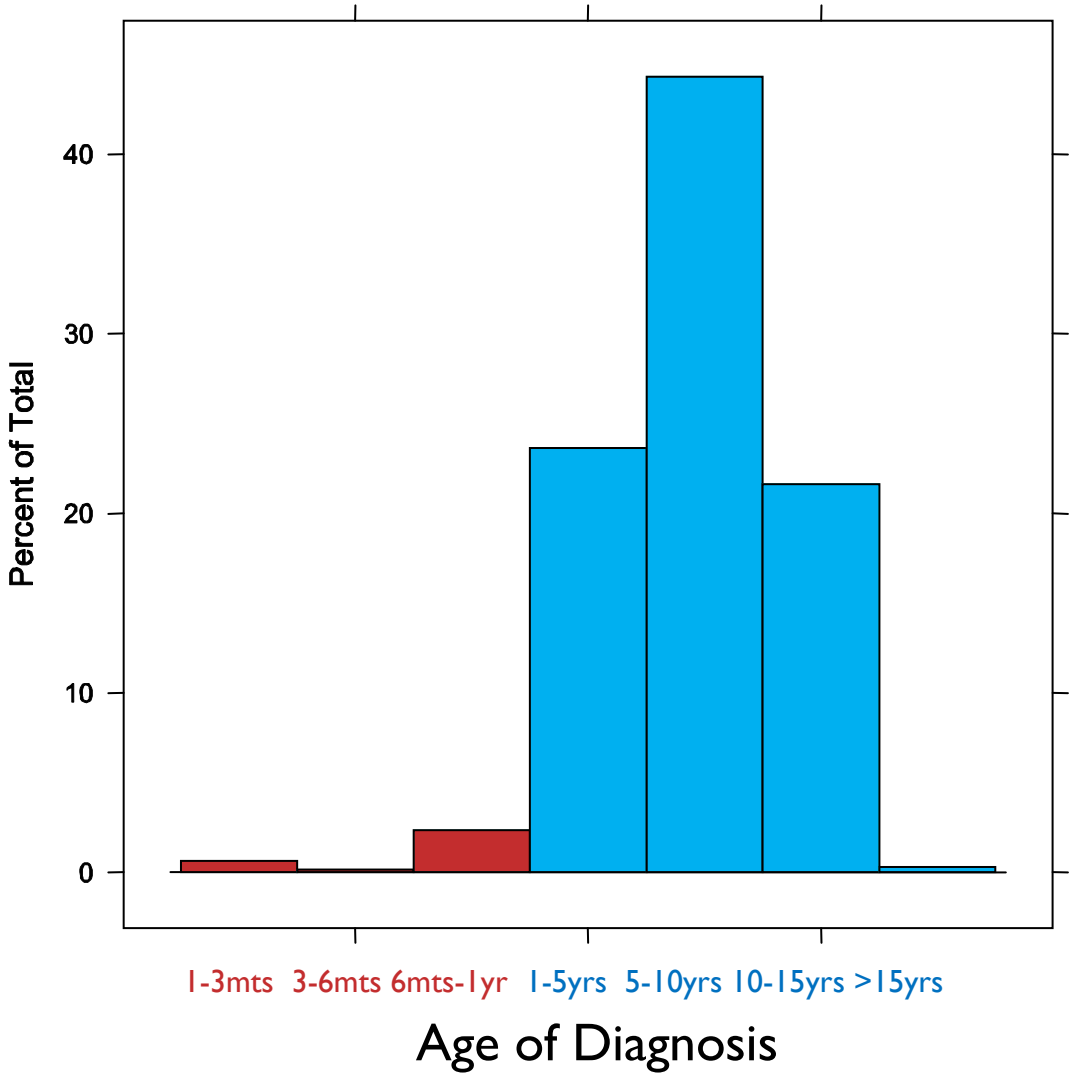
Client Master Index

N=643



Client Master Index (1998-2007)

N=643



# Family History (1998-2007)
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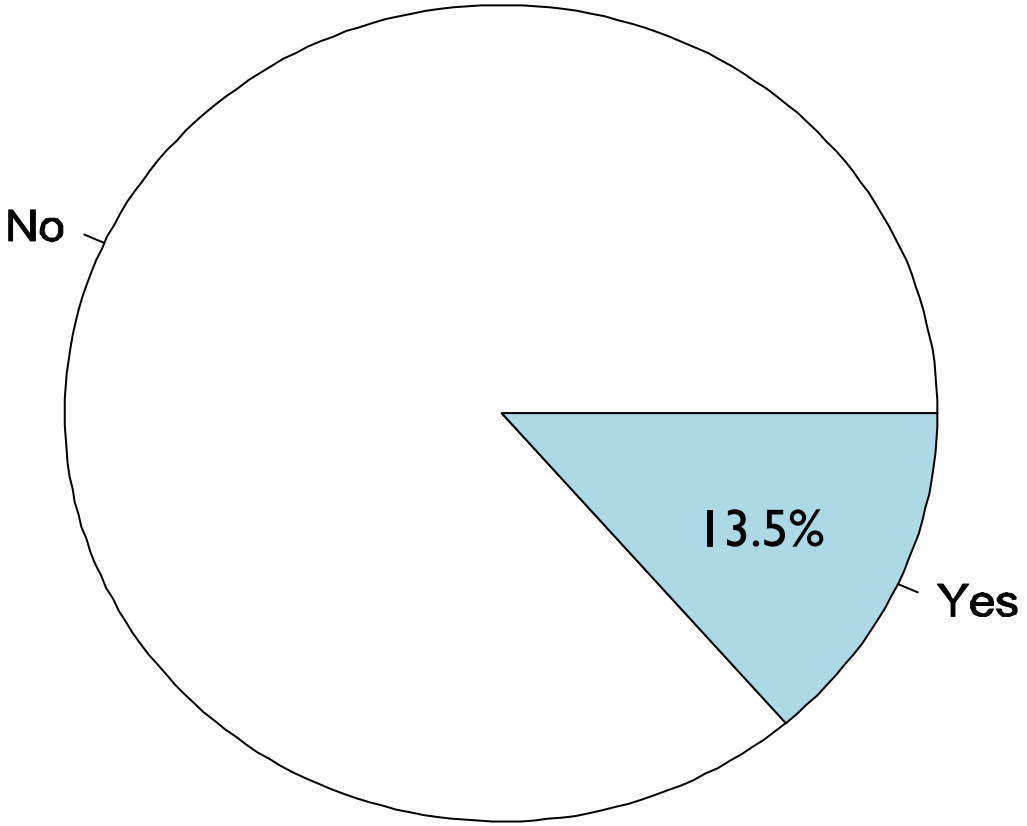
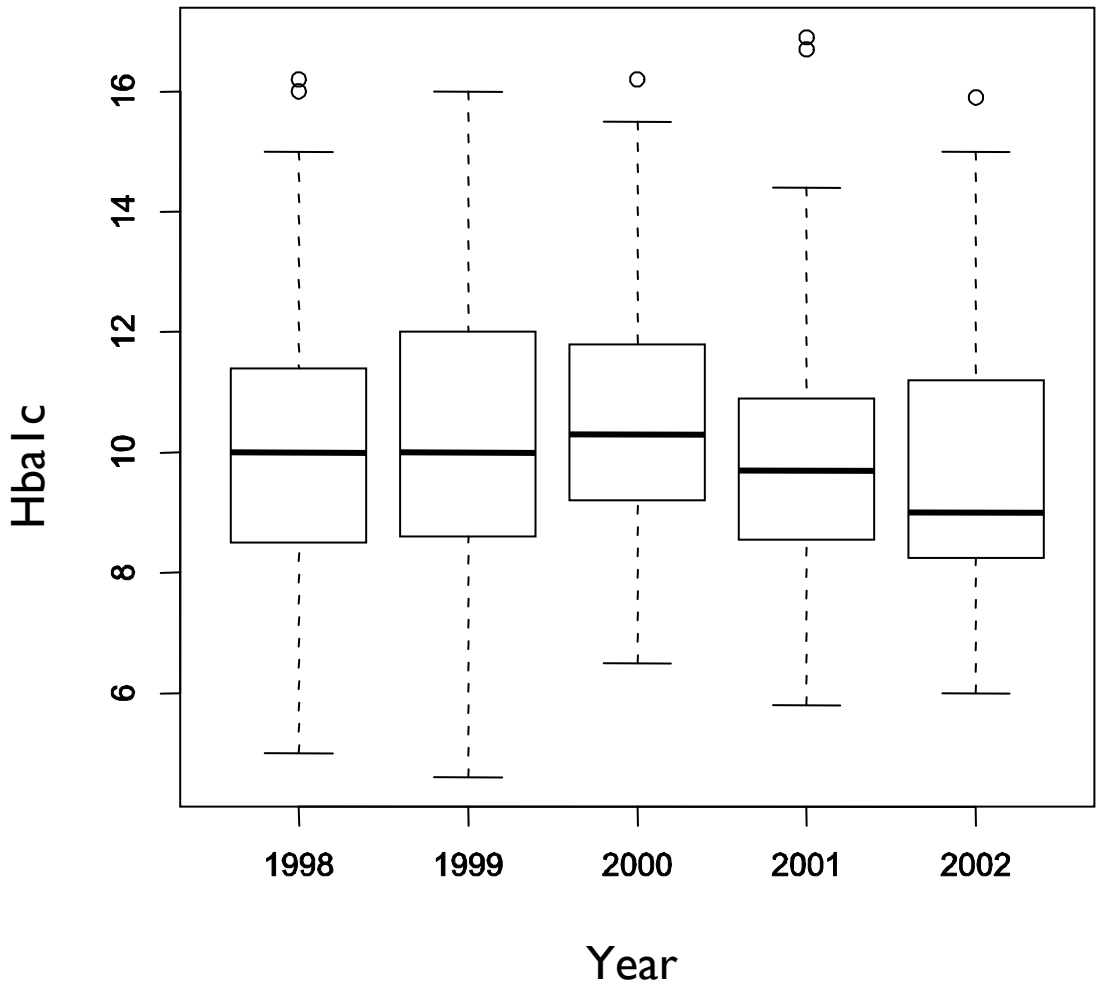


Siblings Familiarity

Laboratory results (1998-2002)

N=936



Health Services

Visits and Laboratory exam (1998-2007)

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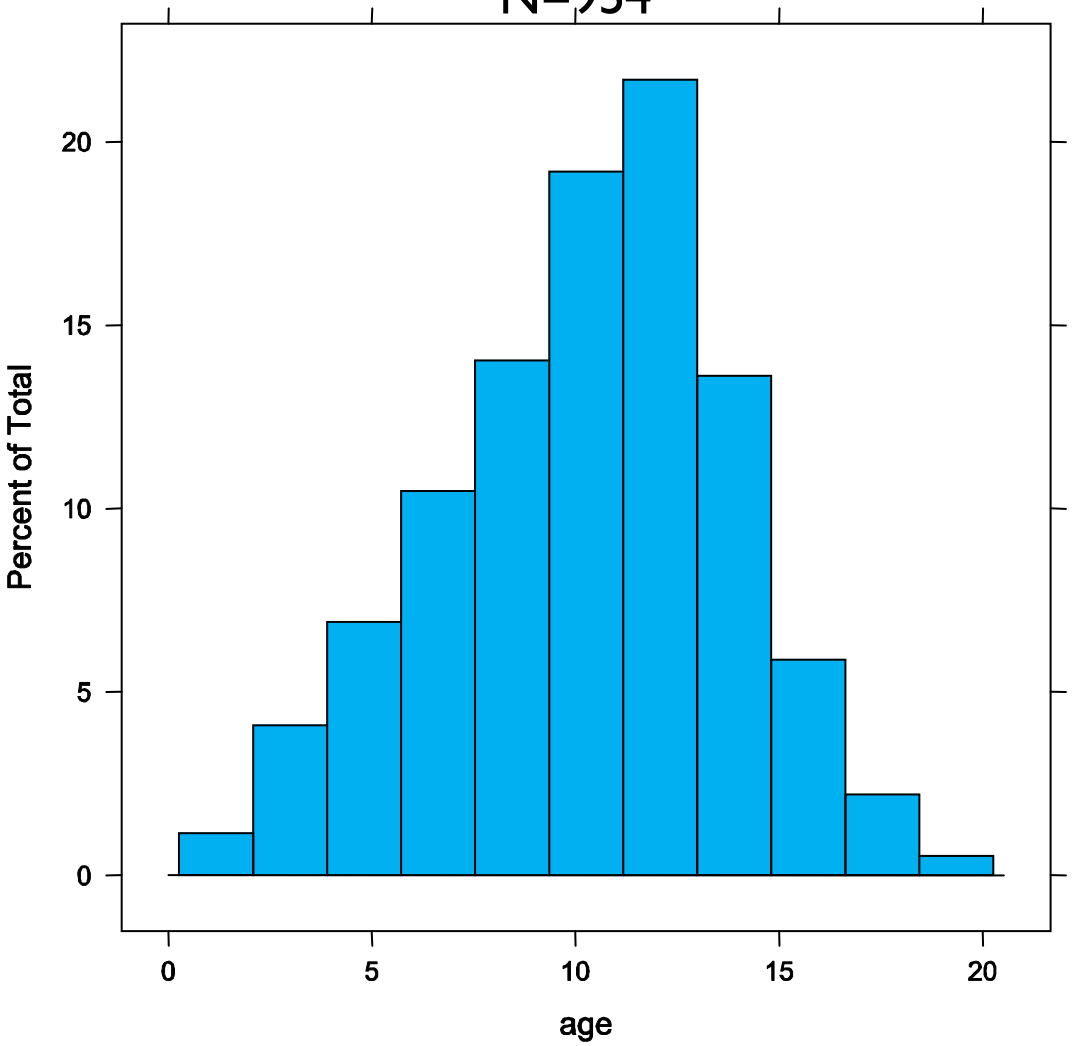

Conclusion

- Relevant information can be derived from diabetes registry

Provided that

- Data is complete and sufficient
- It takes into account the difference between hospital or population based data
- Continuity of care is secured
- Appropriate human and structural resources are available