Human Resources in GI
- Understanding the sources

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Objectives

Project

- Understand the methodologies, strengths and weaknesses of the five major HR databases
- Propose a structure moving forward to inform membership

- The CAG would like to thank our colleagues at CIHI, especially Geoff Ballinger, and Shanna DiMillo at the Royal College and the CMA for their help with this report.
Defining GI

- The definition of a Gastroenterologist is difficult as many of the skills, and much of the knowledge, involved in the care of patients with digestive disease is not exclusive to GI specialists.

- This issue of definition results in a lack of agreement between the databases, which capture GI HR numbers.
Complications

- Gastroenterologists work in a variety of roles including clinical, administrative, research and education.
- They may be full time, part time, active or retired, paid by fee for service or alternative funding, registered or not, formally certified in a specialty, or not.
- The databases capture different aspects of this depending on what they were designed to do.
National Databases

- The Royal College of Physicians and Surgeons
- CIHI: The National Physician Database
- CIHI: Scotts Medical Database
- Scotts Medical Directory
- Canadian Medical Association Masterfile

- In addition many provinces maintain their own datasets on GI numbers and do so usually through the Provincial Medical Colleges or government agencies.
The Royal College

- The College maintains two databases.
  - Physicians who are Fellows of the College.
    - This data will exclude practitioners who did not complete specialty certification. Foreign trained academics, for example, will not appear with this database.
  - Maintenance of Certification (MOC) program.
    - Many, but not all, Provincial Colleges require physicians to participate in MOC programs to maintain licensure. Since licensure is required to practice it is likely that this data is accurate and comprehensive.
**College**

**Strengths**
- These physicians are formally trained and certified in the specialty
- The data is likely accurate

**Weaknesses**
- Not all physicians functioning in part, or whole, as GI are Royal College certified (we cannot decipher this number from the College data)
- The College data does not specify the activities of the GI specialist as to whether they are full or part time, or involved in administration or research
- The College uses CIHI data for total licensed physicians and relative workforce age. This is important because CIHI data is based on Scotts medical database
CIHI:NPDB

- Socio-demographic, payment and service utilization data of physicians
- Service utilization data, by age group and sex, of physicians’ patients
- Physician payment information at the individual, specialty and aggregate level
- In essence each physician in the country is assigned an encrypted identifier. Each Province and Territory assigns physicians to a specialty. CIHI uses payment data, and specialty assignments, supplied by the Province
FTE by NPDB

Figure 1. The graph is taken from the NPDB release 2014-2015 and shows the methodology for the relationship between fee for service income and FTE count.
CIHI:NPDB

- **Strengths**
  - Payment data is hard data and likely represents accurate and auditable numbers
  - This CIHI data is not a head count; it represents the payment activity to clinicians and is therefore a measure of clinical capacity
  - Payment data recognizes that high billers may be functioning as more than one FTE

- **Weaknesses**
  - Payment data does capture alternative payment to physicians, but utilization is not completely captured for APP based on shadow billing practices of physician
  - Payment data will underestimate the number of GI in administration and research
Medical Database (SMDB), formerly Southam Medical Database, provides information on the number of physicians and their distribution across Canada. It also contains demographic, education and migration information.
The data is collected from a number of organizations and institutions, such as:

- Jurisdictional registrars
- Medical schools
- The Royal College of Physicians and Surgeons of Canada
- The College of Family Physicians of Canada
- The Collège des médecins du Québec
- Canadian hospitals

The SMDB contains the following information on physicians in Canada:

- Sex
- Year of birth
- Jurisdiction
- Postal code
- Activity status
- Place and year of graduation from medical school
- Specialty
Strengths

- The data is acquired from Scotts Medical Directory a private, for-profit, marketing system, which strives to ensure that the data is correct
- The data is acquired from a variety of sources
- CIHI does do data quality checks and validation before publishing Scott’s data. A methodology notes document is produced and released with each data release.

Weaknesses

- As far as we are aware the data has never been validated
- It requires a little practice to navigate the data
The CMA Masterfile is populated by regular inputs from the Royal College and College of Family Physicians of Canada (CFPC) as well as from members themselves.

The non-member data in the file is more difficult to maintain as the CMA does not get regular updates on them such as when they retire or leave the country. To mitigate this, the CMA looks up the non-member physicians in their Masterfile, who are over the age of 70, on the provincial regulatory websites to determine if they are still licensed.
CMA

**Strengths**
- Data is likely accurate since the CMA has direct contact with its members
- The data set is independent of Scotts and represents a useful second count of numbers
- Dataset includes non-members

**Weaknesses**
- It is not clear how a GI is defined nor has it been validated however Specialty information in the CMA Masterfile comes from inputs from the CFPC, Royal College and the CM
It is really confusing!!!
Figure 2. The four main national databases by year and number. NPDB = CIHI payment data FTE, SMDB = CIHI Scotts, CMA = Canadian Medical Association, RC MOC = Royal College Maintenance of Certification
Conclusions

- Multiple databases exist which capture aspects of GI human resources. They each have their strengths and weaknesses.

- CIHI:SMDB is likely the most accurate data set for use by the CAG. It is higher than either of the other two datasets by about 10%.

- The NPDB will capture all physicians, practicing in all clinical settings who are paid through the medical care plans. However, it cannot always identify the actual location of the service (community vs. hospital).

- CMA numbers are within 10% of CIHI: SMDB and capture slightly different aspects of practice.

- The Royal College data should also be posted as it gives the data on the numbers of trainees and graduates by year.

- RC MOC data may become increasingly accurate as participation in MOC increases.
Suggestions

- Post explanation of databases
- Post multiple databases, annual update
- Standing committee with expertise on HR
- Provincial College data collated
THE END

Any Questions???