

# HealthForceOntario

## Ontario's Health Human Resources Strategy

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**Recruit and Retain Conference**

**Thunder Bay, Ontario**

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**Ministry of Health and Long-Term Care**



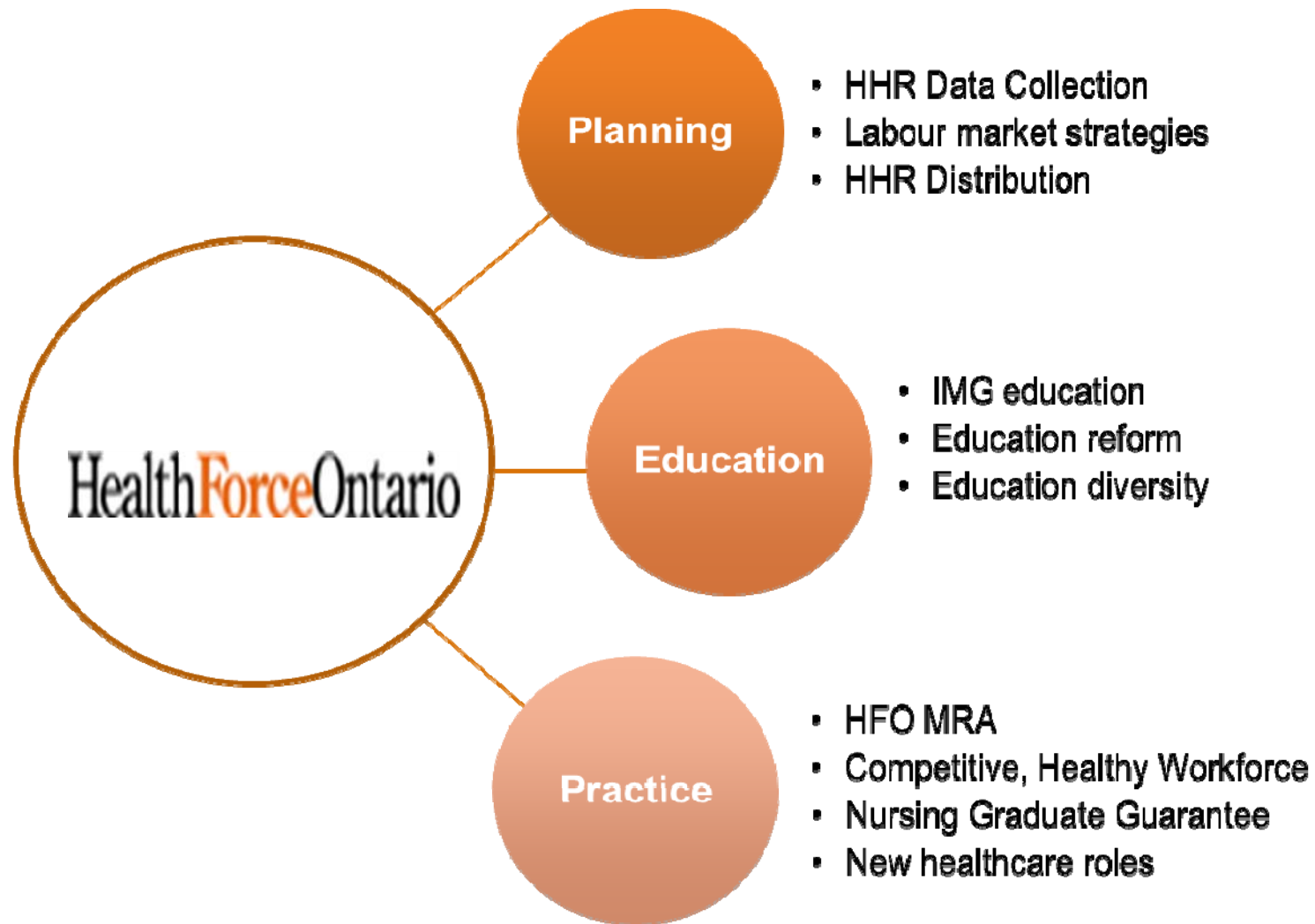
# HealthForceOntario: The Strategy

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- HealthForceOntario (HFO) is Ontario's strategy to ensure that Ontarians have access to the right number and mix of qualified healthcare providers, now and in the future.
- The HealthForceOntario Strategy has been a success for Ontario and has positioned it to effectively respond to population health needs.
- By 2013 Ontario has eliminated the risk of patient service gaps due to **provincial** human resource shortages and has the ability to more effectively plan, train and support health labour market needs.
- Ontario's investments resulted in:
  - ❖ Security of supply for health professions through new training places and retention (e.g. physicians, nurses, NPs, midwives, pharmacy, diagnostic professionals)
  - ❖ Enhanced mix of health providers available, including new roles, and ensured they are available to effectively meet patient needs across Ontario
  - ❖ Infrastructure to better deliver need supports to individuals, employers and communities participating the labour market, e.g. HFO Marketing and Recruitment Agency
  - ❖ Strong evidence for present and future decision making, including foundational data bases and leading edge forecasting tools
- Increased numbers of providers, shorter wait times and fewer patients lacking access to care are all evidence of achievement.
- Health human resources challenges have evolved from **provincial** supply challenges to mix and distribution challenges

# HealthForceOntario: The Strategy

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# HealthForceOntario: Evidence Informed Planning

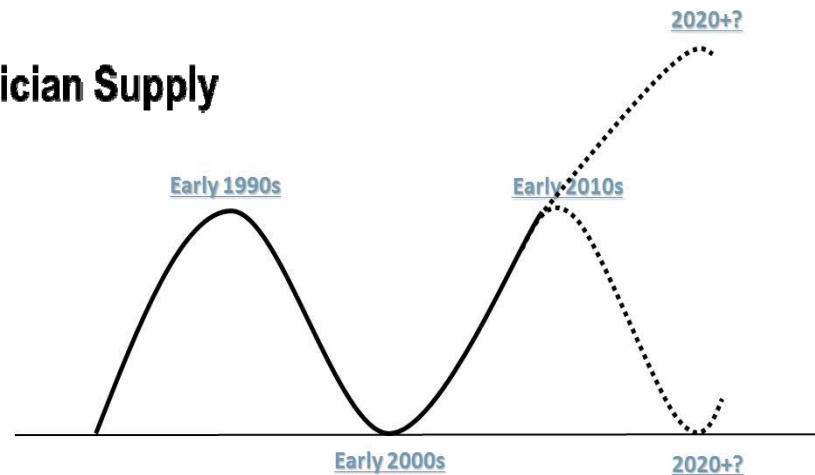
- Strategy developed for conditions in 2005/06 when the dominant issue was the provincial shortage of critical health care providers that impacted on access to care



- Foster a culture of evidence-informed planning
- Enhance data, analytical and research capacity

- Successes in addressing provincial challenges opens new expectations
- Growing provider population raises challenges of managing several competing pressures to ensure security of supply into future and prevent the prior boom and bust cycle

## History of Physician Supply



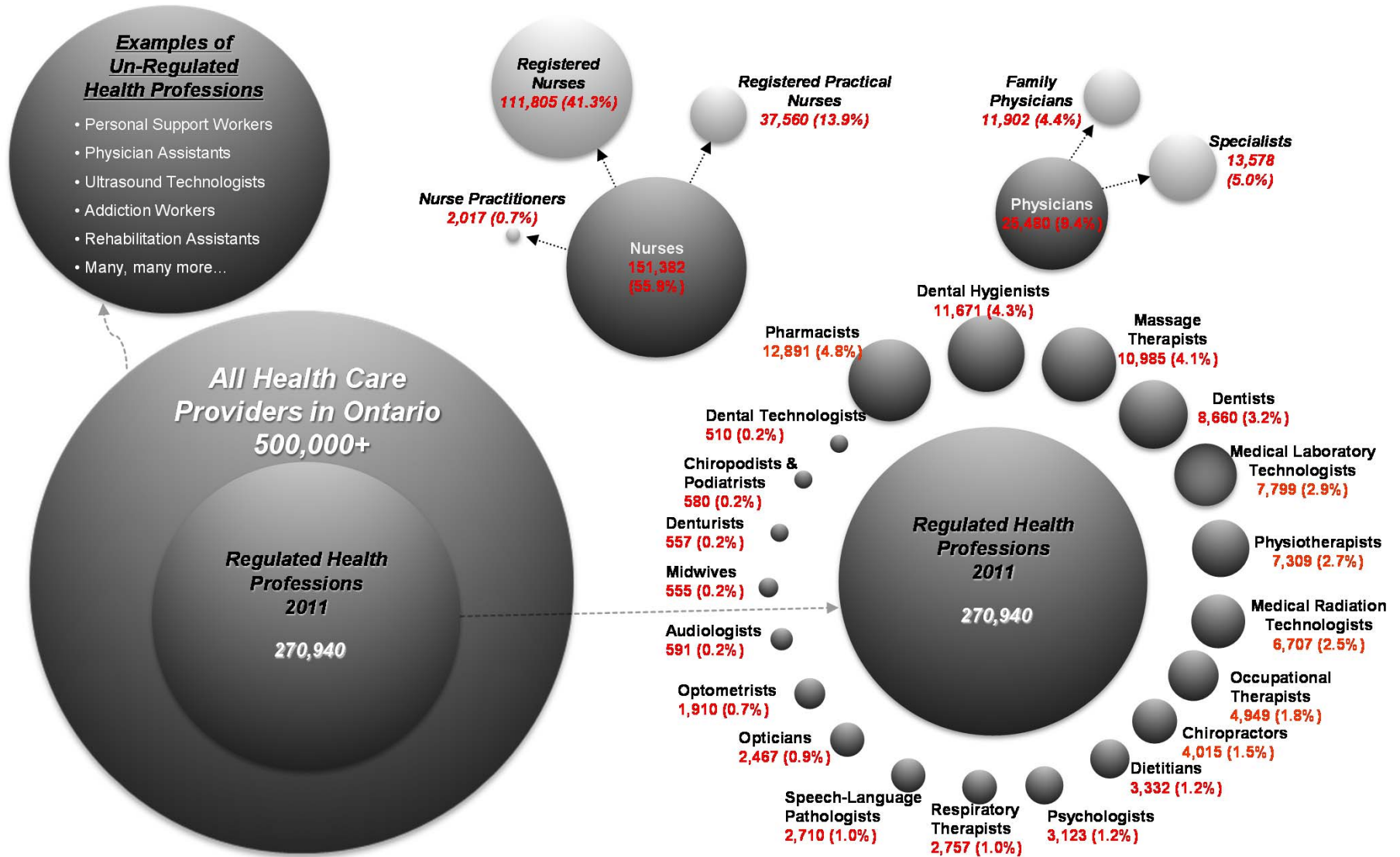
## Evidence Step #1: Getting Clear Basic Data

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### The Health Professions Database (HPDB)

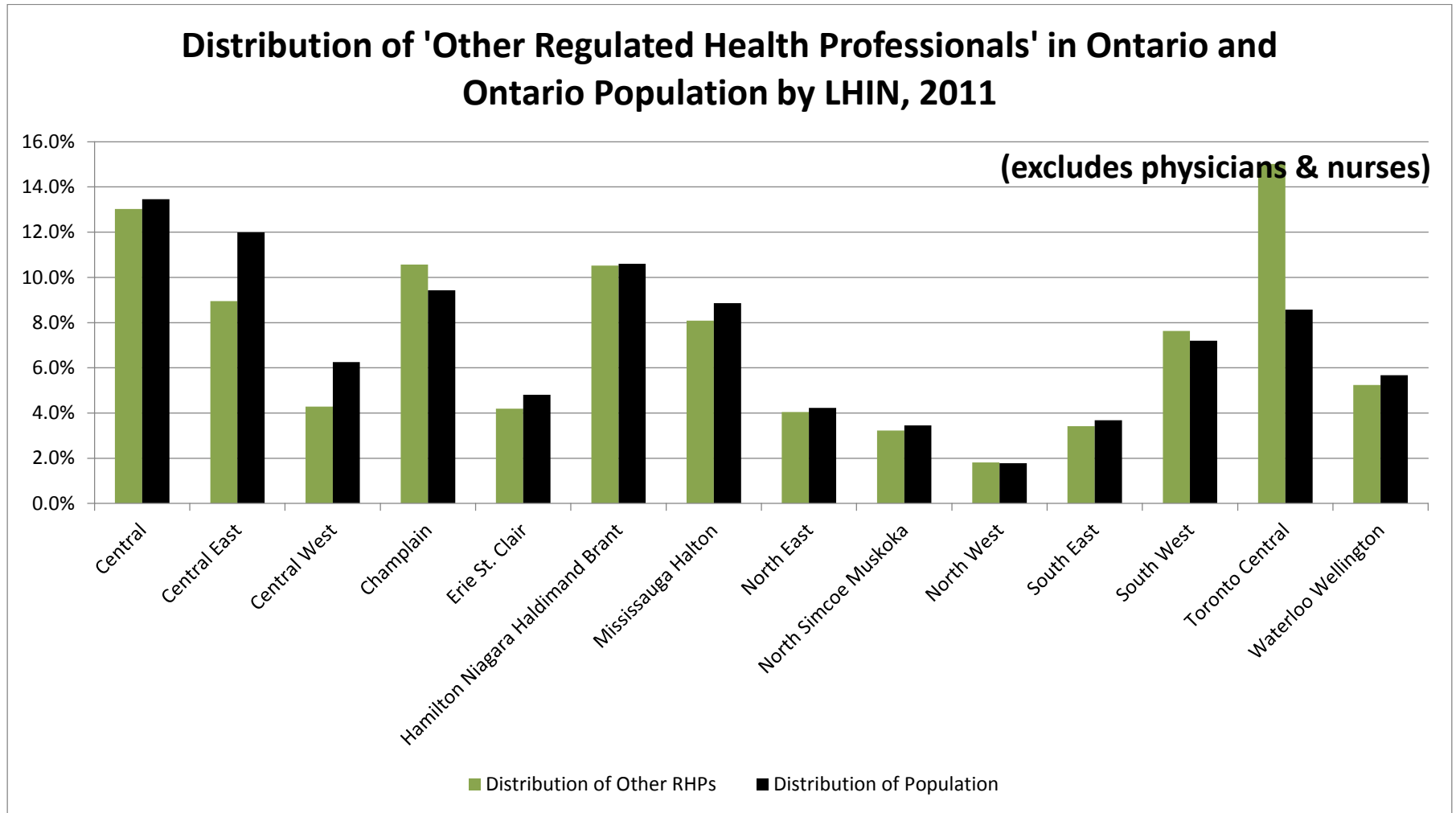
- Supply-side database: Collects standard, consistent and comparable data across regulated health professions in Ontario
- Tells us the demographic, geographic, educational, and employment characteristics of regulated health professionals in Ontario
- Ministry of Health and Long-Term Care and the health regulatory Colleges collaborated to develop the HPDB

# Evidence Results #1: Ontario's Health Workforce



Sources: Health Professions Database, Ministry of Health and Long-Term Care, 2011  
Physicians in Ontario, Ontario Physician Human Resources Data Centre, 2011

# Evidence Result #1: Distribution etc



**Sources:** 'Other Regulated Health Professional' Data: Health Professions Database, Ministry of Health and Long-Term Care, 2011 Submission

Population Data: Ontario Ministry of Finance, 2006 Census-Based Ministry of Finance Population Estimates (2001-2011) and Projections (2012-2036) for Local Health Integration Networks (Spring 2012)

- Note:**
1. Practice site by LHIN information refers to the first practice site listed in the HPDB. Not all providers who hold an active license listed a valid practice site in Ontario, or were working in their profession. As such numbers quoted above may not sum to 2011 totals.
  2. 'Other Regulated Health Professional' excludes physicians and nurses.

## Evidence Step #2: Modelling

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### Supply-Based HHR Modelling (2005-)

- A stock-flow model which tracks the progression of a physician from their entrance to medical school, through post-graduate training, to practise and then retirement.
- Used to project the provincial supply of physicians by specialty and to test the potential effects of altering the allocation of post-graduate (PG) residency positions on future supply.

### Needs-Based HHR Modelling (2010-)

- Collaboration with the Ontario Medical Association to develop a population needs-based physician simulation model for Ontario.
- Converts the future health needs of the population in to need for physician services, compares it with the future supply of physician services and calculates a gap by specialty and Local Health Integration Network (i.e. region).
- **Useful, but only one piece of evidence. It's a model not a forecast.**



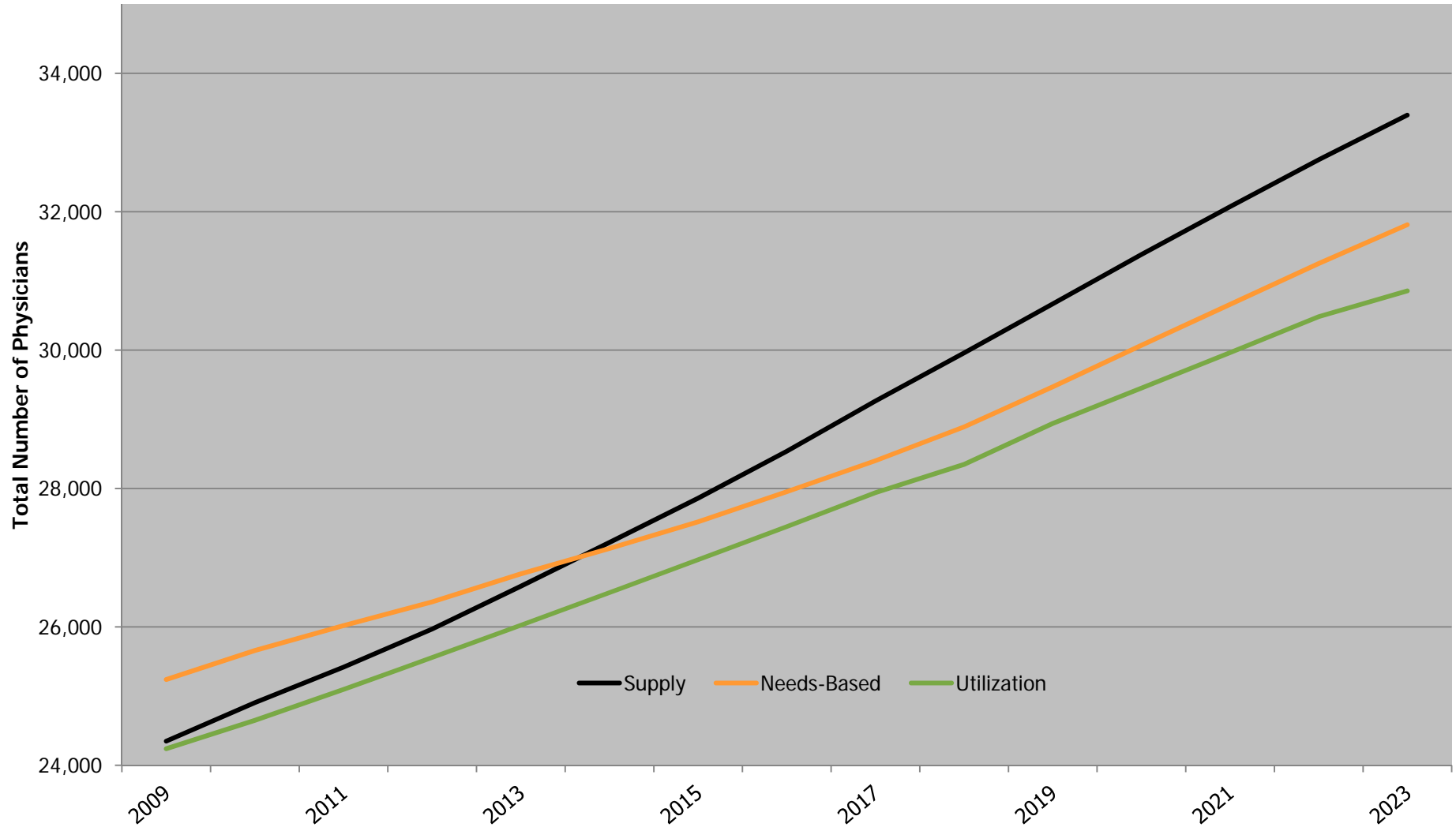
## Evidence Step #2:

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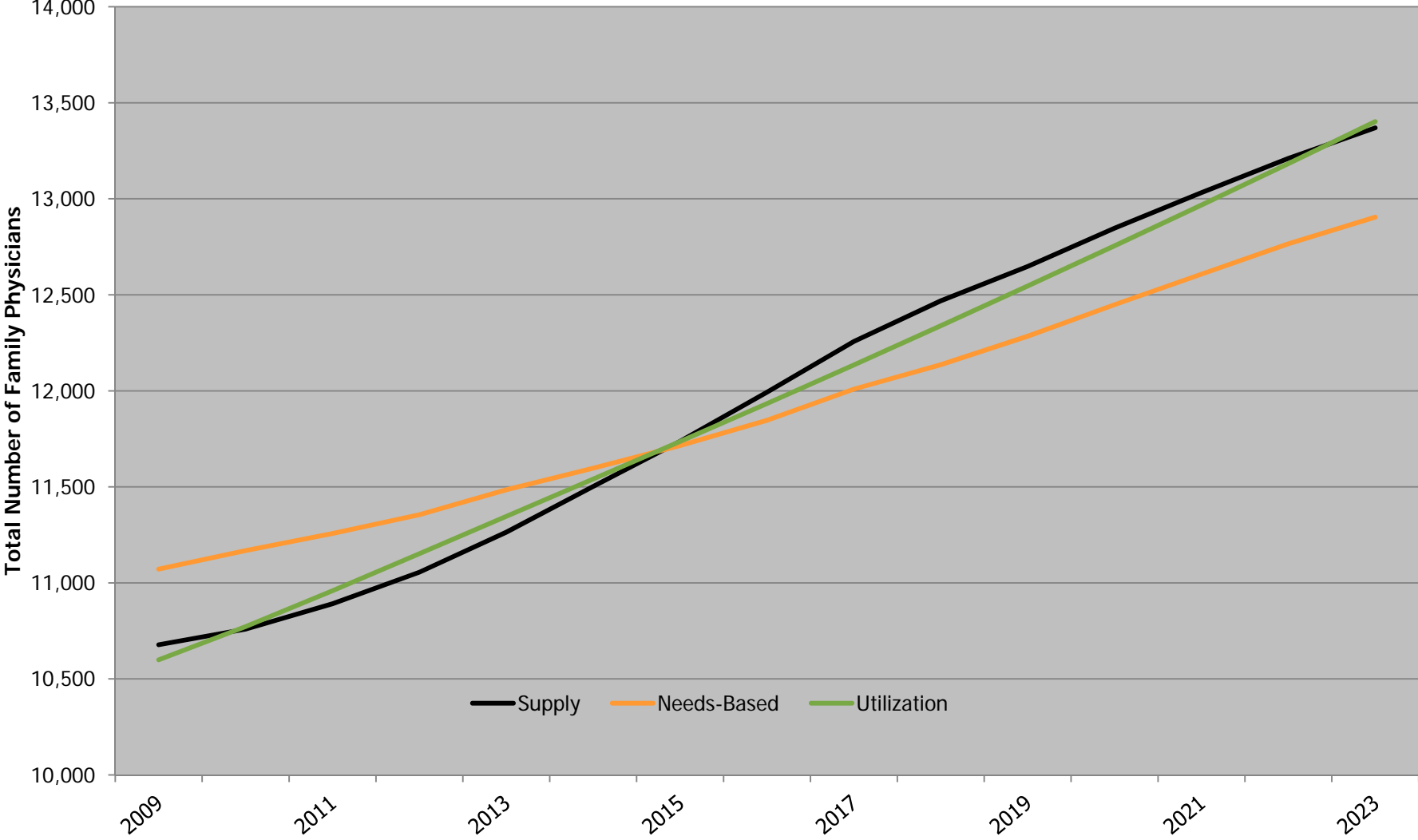
### Utilization Based Physician Modeling

- The model uses OHIP claims data to determine current utilization by age and specialty
- Current utilization is then applied to future population forecasts to estimate future utilization
- Estimated future utilization is converted to project the number of physicians needed based on current patient/physician volumes
- The projected number of physicians needed is compared to the projected supply of physicians to determine the projected gap of physicians

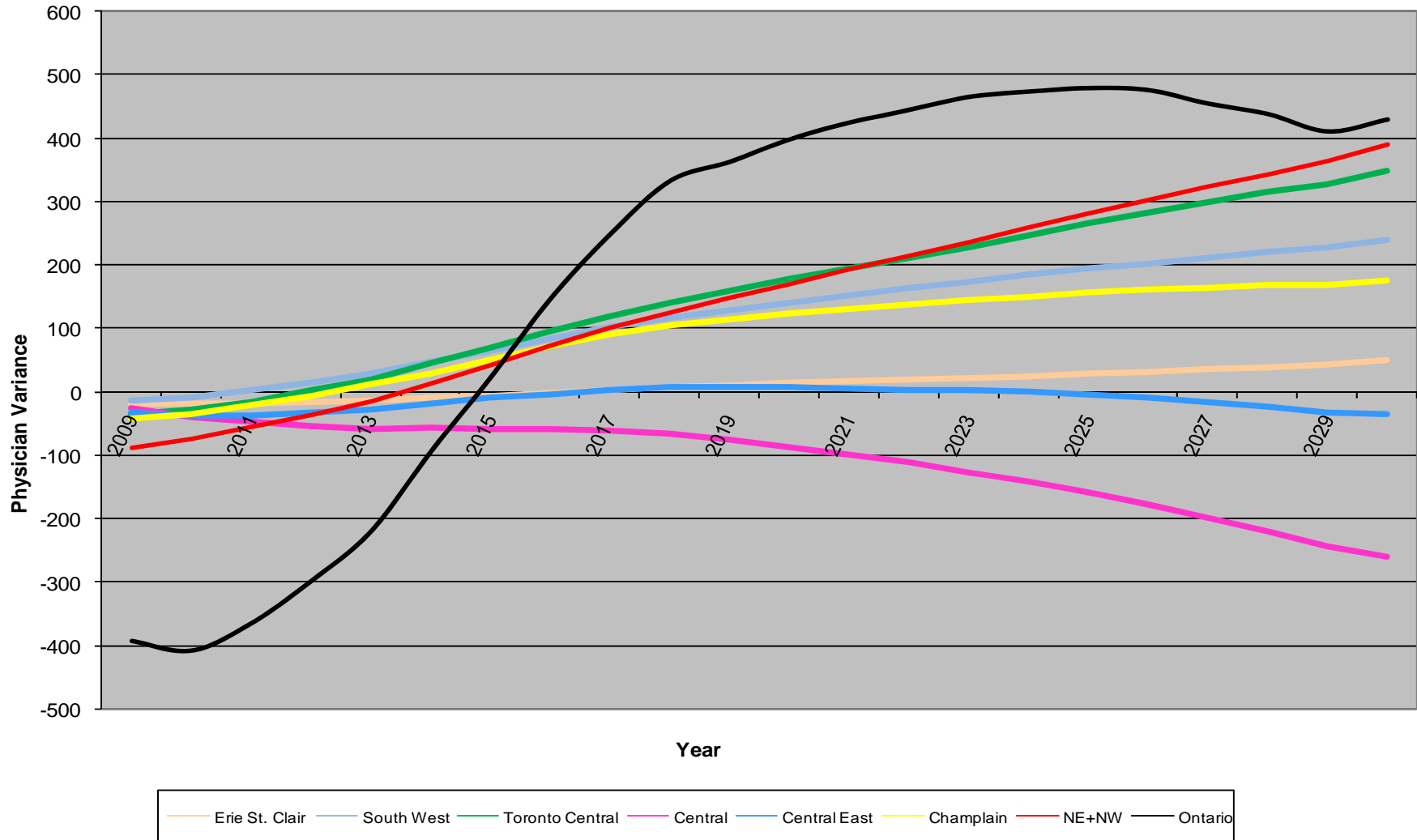
# Comparison of Results – Total Physicians



# Comparison of Results – Family Physicians



# What About Distribution?



**Source:** Ontario Needs-Based Physician Simulation Model, Ministry Base Case 2009

## How do we use evidence?

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### **Reporting:**

- Projected physician supply by specialty, ages, sex
- Estimated number of residents ready to enter practise
- Future geographical and specialty-specific gaps

### **Policy – Conduct Simulations to:**

- Inform medical school distribution of residency positions
- Test effects of potential change in productivity and migration
- Support negotiations with system stakeholders

## Going Forward

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- Addressing key policy issues:
  - Distribution
  - Mix
  - Pan-Canadian physician HR planning
  
- Enhanced information utilization and sharing
  - Sharing information and promoting local and regional planning
  
- Enhanced nursing workforce evidence/tools:
  - Supply-side model
  - N4T: collection of employer-based information to understand short-term nursing demand

# Appendix

# Ontario

- Most populous jurisdiction in Canada (13.5M as of July 2012)
  - 39% of Canadian population, with average annual growth of 1.1% since 2002
- Second largest province in total area (total area = 1.1M sq. kms.)
- 24 hours non-stop drive from border to border. Quicker to drive to Jacksonville, FL than to Kenora, ON.
- Majority of Ontario population in south, and a very large and sparsely populated northern area
  - Greater Toronto Area (GTA) census metropolitan area almost 6M (44% of provincial total)
  - Over 85% in urban centres, largely on/around shores of the great lakes
- Population growth largely from immigration. ~40% of people who immigrate to Canada each year settle in Ontario (according to the 2006 census 29.2% of Ontario population was foreign born)



# Healthcare in Ontario

- Healthcare consumes 42% of provincial programs, will be 70% within 12 years without changing course
- Action Plan for Health Care 3 Pillars:
  1. Keeping Ontario Healthy
  2. Faster Access to Stronger Primary Care
  3. Providing the Right Care, Right Times, Right Place
- 14 Local Health Integration Networks (LHINs) were created in 2006 to allow more local/community responsibility for health services
  - Plan, integrate and fund local services including: Hospitals, Community Care Access Centres, Community Support Services, Long-term Care, Mental Health and Addictions Services, and Comm. Health Centres
- 2013/14 Budget Expenses Plan \$128 Billion, \$49 Billion (MOHLTC Plan)
  - ~ \$11 billion physician payments (23%)

# Who is Participating in the HPDB?

Health Professions Who Began Submitting Data To The HPDB in 2009	
Audiologists	Midwives
Chiropodists	Nurses – First submission in 2011
Chiropractors	Occupational Therapists
Dental Hygienists	Opticians
Dentists	Optometrists
Dental Technologists	Pharmacists
Denturists	Physiotherapists
Dietitians	Psychologists
Massage Therapists	Respiratory Therapists
Medical Laboratory Technologists	Speech-Language Pathologists
Medical Radiation Technologists	
Health Professions Added or To-Be Added to the HPDB	
Homeopaths*	Psychotherapists & Registered Mental Health Therapists*
Kinesiologists*	Pharmacy Technicians – First submission in 2013
Naturopaths*	Traditional Chinese Medicine Practitioners & Acupuncturists*

\* Newly Regulated Health Profession

# HPDB Minimum Data Set

## Identifiers, Registration and Demographics

1. Unique Identifier Number (de-identified)
2. Registration Status
3. Registration Inactive Status Reason
4. Class of Registration
5. Sex
6. Year of Birth
7. Languages of Care

## Geography and Related

8. Primary Postal Code of Residence
9. Primary Province or Territory or State of Residence
10. Primary Country of Residence
11. Province or Territory of Registration (Default Value)
12. Year of Initial Registration to Practise in Ontario
13. Concurrent Province or Territory or State of Registration
14. Concurrent Country of Registration
15. Most Recent Previous Province or Territory or State of Practice
16. Most Recent Previous Country of Practice
17. Last Year of Practice in Previous Province or Territory or State or Country
18. Specialty Certification
19. Year of Specialty Certification

## Education

20. Bridging Program Completion
21. Year of Completion Bridging Program
22. Level of Education in Profession
23. Year of Graduation from Education in Profession
24. Canadian Educational Institution of Education in Profession at Graduation
25. Province or Territory or State at Graduation from Education in Profession
26. Country of Graduation from Education in Profession
27. Highest Level of Education Outside of the Profession
28. Field of Study for Highest Education Outside of the Profession
29. Year of Graduation from Education Outside of the Profession
30. Province or Territory or State of Graduation from Education Outside of Profession
31. Country of Graduation from Education Outside of Profession

## Employment – Historical

32. Country of First Time Practising in Profession
33. Province or Territory or State of First Time Practising in Profession
34. First Year of Practising in Profession
35. First Canadian Location of Practice in Profession
36. Year of First Canadian Practice in Profession

## Current Employment – Individual Based

37. Practice Status
38. Full Time/Part Time/Casual Work Preference
39. Agency Nurse
40. Total Number of Practice Weeks in the Past 12 Months
41. Average Number of Weekly Practice Hours in the Past 12 Months
42. Average Number of Weekly On-Call Hours in the Past 12 Months
43. Proportion of Average Weekly Practice Hours on Direct Professional Services
44. Proportion of Average Weekly Practice Hours on Teaching
45. Proportion of Average Weekly Practice Hours on Clinical Education
46. Proportion of Average Weekly Practice Hours on Research
47. Proportion of Average Weekly Practice Hours on Administration
48. Proportion of Average Weekly Practice Hours on All Other Activities

## Current Employment – Site Based

49. More Than Three Practice Sites
50. Employment Category
51. Full-Time/Part-Time/Casual Status
52. Practice Setting
53. Postal Code of Practice Site
54. Province or Territory or State of Practice Site
55. Country of Practice Site
56. Primary Role
57. Area of Practice Activity
58. Practice Specialty
59. Client Age Range

# Needs-Based Physician HR Modeling

- The physician time spent treating the ICD-10 categories/sub-categories is applied to the projected supply of physicians to calculate the amount of time available for physicians to treat these conditions/diseases. This is called the 'Projected Future Supply of Physician Services'
- The 'productivity' factors can also be adjusted to increase/decrease a physicians' time available to treat conditions/diseases
  - e.g. increased productivity for FM docs by incorporating NPs



# Needs-Based Physician HR Modeling

- To estimate the health needs of the population, we start with socio-economic and lifestyle risk factors from the Canadian Community Health Survey (CCHS) conducted by Statistics Canada:

<b>Age</b>	<b>Obesity</b>
<b>Sex</b>	<b>Smoking</b>
<b>Alcohol Consumption</b>	<b>Second Hand Smoke Exposure</b>
<b>Consumption of Fruits and Vegetables</b>	<b>Income</b>
<b>Stress</b>	<b>Physical Inactivity</b>
<b>Lack of Sense of Belonging in the Community</b>	<b>Employment in the Mining Industry</b>

- We used the CCHS data to capture the current prevalence of each one in Ontario by age, sex and LHIN
- We apply the current prevalence to the projected future population to estimate the future prevalence of each risk factor.
- Next we estimated how each factor contributes to the top 10 treated diseases reported in the OMA survey

# Needs-Based Physician HR Modeling: Calculating the Gap

