

Health Occupations in Canada

Canada's labour force is expected to see demand growth of about 0.8 percent per year over the next decade – see Figure 1. Of this demand, 7 percent is for health occupations. Our nation is expected to add nearly 30,000 new health related jobs per year over the next 10 years, and another 35,000 Canadians from health-related positions are expected to be replaced each year over the same period due to deaths and retirements from the labour force – see Figure 2. Does Canada have the labour supply available to fill these nearly 65,000 health related occupation positions annually?

Workforce Outlooks – An Overview

Workforce Outlooks provides information to decision makers to help them obtain the workers they need, with the right skills, at the right time, and in the right geographic location. Several public and private sector clients, including government departments in 6 provinces are current subscribers to Stokes Economic Consulting Inc's Workforce Outlooks. Workforce Outlooks represent a "requirements" approach to labour force analysis. This approach first focuses on estimating the required level of labour force demand given the current economic and demographic performance of the economy. After estimating demand and the sources of that demand, the model then focuses on the possible sources of supply to fill these requirements and the number of workers that can or need to be obtained from each supply source. Finally, Workforce Outlooks present an assessment of the possible difficulty in meeting these requirements.

Labour Force Demand for Health Occupations

Labour force demand, which is referred to as job openings, is separated into two components: expansion demand and replacement demand. Expansion demand is the change in employment and the associated normal unemployment. Replacement demand is the demand that is necessary due to deaths and retirements from the labour force. In more recent years, replacement demand has become the largest contributor to total demand, a result of Canada's aging population. Replacement demand for health-related occupations is expected to average about 55 percent of total job openings for these occupations over the next 10 years. Total demand in health occupations in Canada is expected to average near 65,000 persons per year to 2026. Of this total, expansion demand averages 30,000 persons per year and replacement demand averages 35,000 persons per year – see Figure 2. At the provincial level, Workforce Outlooks shows that the highest level of job openings for health occupations are in Ontario, followed by Quebec and British Columbia. While the focus of this article is on Canada's labour force, Workforce Outlooks data is available across all provinces at the 4-digit level for 500 NOC occupations.

Fig.1 Total Labour Force Demand (% Change)

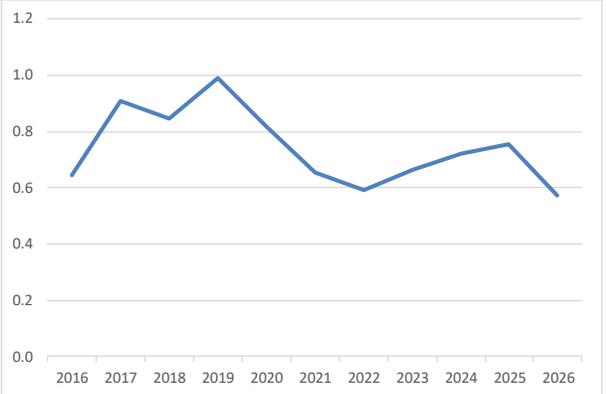


Fig.2 Health Occupations, Job Openings

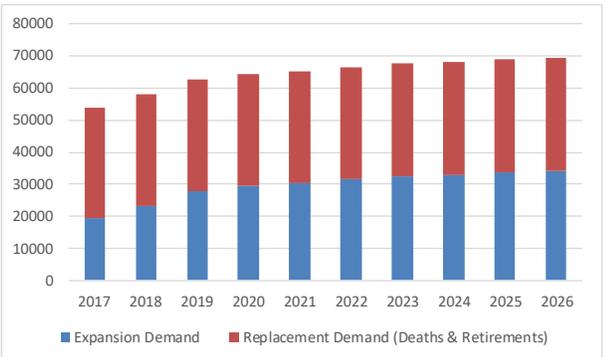


Fig.3 Health Occupations, Sources of Supply

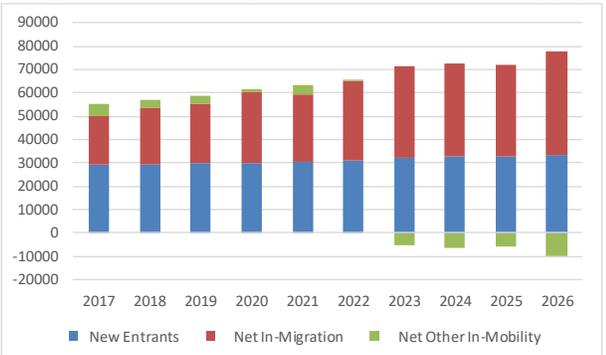
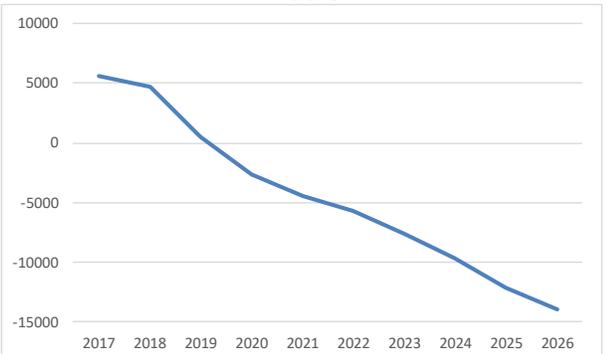


Fig.4 Health Occupations, Labour Force Excess Supply



Sources of Supply for Health Occupations

The sources of labour supply are new entrants and net in-mobility. New entrants are graduates who enter the workforce for the first time. Workforce Outlooks assumes that new entrants do not fill management positions, therefore the sole source for managers in health occupations is net in-mobility. Job openings for all other health related occupations can be filled by new entrants or through net in-mobility.

Net in-mobility is the sum of net in-migration and other net in-mobility. Other net in-mobility consists of all other changes in labour force supply such as, those who change occupations (inter-occupation mobility), or re-enter the labour force after an illness, or increasing participation rates caused by increased wages or social factors such as the increased desire on the part of women to enter the labour force. Those who occupy management positions often do so as the result of upward movement in their career. For this reason, the largest contribution of supply for managers in health is net other in-mobility, specifically, inter-occupation mobility. The supply for all health-related occupations in Canada is projected to average near 63,000 per year to 2026 – see Figure 3.

Demand – Supply Balance

In average terms, it appears that Canada is not expected to have the labour supply available to fill demand for health-related occupations over the next 10 years. Demand is projected to average 65,000 per year, and supply to average 63,000 per year. It is beneficial here then, to take a closer look at the annual data. In Figure 4, the outlook for excess supply is positive until 2020. Supply for health occupations in Canada exceeds demand until 2020, and demand exceeds supply, thereafter. We can take an even closer look at the data to see which sub-categories of health occupations may face difficulty in acquiring their required workforce in the future.

3 Digit NOC Health Occupations

Figure 5 shows average excess supply for health occupations at the 3-digit NOC level, over the outlook period, 2020-2026. Negative values imply excess demand, or a shortfall in supply. Occupations are sorted, starting with the greatest excess demand. For some of the occupations below, the excess demand is relatively small and it should not be difficult to plan for the level shown. To further assess the situation for those occupations with higher excess demand levels, it can be useful to look at the demand pressure for occupations. For those occupations with a larger labour force, the levels below may only be a small percentage of the total demand change for the occupation. Looking at the demand pressure for occupations adjusts for the relative sizes of the occupation groups.

**Fig.5 Excess Supply, Health Occupations (3 digit NOC)
2020-2026**

NOC	Description	Average
#301	Professional occupations in nursing	-2344.6
#341	Assisting occupations in support of health services	-2015.9
#321	Medical technologists and technicians (except dental health)	-940.3
#323	Other technical occupations in health care	-910.4
#311	Physicians, dentists and veterinarians	-734.1
#314	Therapy and assessment professionals	-400.6
#313	Pharmacists, dietitians and nutritionists	-215.9
#031	Managers in health care	-180.7
#322	Technical occupations in dental health care	-180.3
#312	Optometrists, chiropractors and other health diagnosing and treating professionals	-112.3

Figure 6 below, shows average demand pressure for the same group of health occupations above, for the same period, 2020-2026. Occupations are sorted, starting with the greatest demand pressure. In comparing Figure 5 and 6, you can see that some of the occupation groups that topped the list for excess demand are nearer the bottom of the list for demand pressure and vice versa, some of the occupations with lower excess demand, appear near the top of the list below. For example, excess demand for optometrists, chiropractors and other health diagnosing and treating professionals is only 112 persons per year, though the demand pressure for the same occupation group is in the top 3 for all health occupation groups. What it says in Figure 6 below,

is that, optometrists, chiropractors and other health diagnosing and treating professionals will be required to add 4.7 percent of their labour force each year to meet demand. Assisting occupations in support of health services come in towards the top of the list for excess demand levels, and it comes in at the bottom half of the demand pressure list. This occupation group is required to add 4.2 percent of its labour force each year to meet required demand.

**Fig.6 Demand Pressure, Health Occupations (3 digit NOC)
2022-2026**

NOC	Description	Average
#031	Managers in health care	6.8
#301	Professional occupations in nursing	4.9
#312	Optometrists, chiropractors and other health diagnosing and treating professionals	4.7
#323	Other technical occupations in health care	4.4
#321	Medical technologists and technicians (except dental health)	4.3
#341	Assisting occupations in support of health services	4.2
#314	Therapy and assessment professionals	4.2
#322	Technical occupations in dental health care	4.2
#311	Physicians, dentists and veterinarians	4.1
#313	Pharmacists, dietitians and nutritionists	3.7

When completing this kind of labour market analysis, our team would further assess those occupation groups which appear near the top of both Figure 5 and Figure 6. These will be occupation groups which have relatively high excess demand as well as greater demand pressure. To assess the difficulty these groups may face in acquiring the required level of demand, Workforce Outlooks provides a ranking system which can be used for this analysis. Rankings are provided at the 4-digit NOC level across all provinces. This analysis allows subscribers of Workforce Outlooks to view which sub-occupations of the groups above are expected to face possible difficulty in acquiring the labour force required by each provincial economy over the outlook period. Managers in health care and professional occupations in nursing are expected to face excess demand and to have the greatest demand pressure of all health occupations. Further analysis will show which provinces face the greatest risk of not acquiring their required supply for health occupations, and which provinces may have the supply available to draw from.

The above Workforce Outlook was derived using the results of the January 2017 C4SE macroeconomic outlook. The major factors driving the economic outlook for Canada are the outlook for Canada's trading partners, commodity prices, government policy and major resource projects scheduled for development over the outlook period. We can provide medium to long term Workforce Outlooks and analyses of the demand for and supply of workers for 500 occupations (NOC 2011) and 70 industries for Canada, the provinces and sub-provincial geographic areas. If there are questions to do with the outlook or the tools used to produce this outlook please get in touch with a member of our team at 905-878-8292 or email us with your questions at info@c4se.com.