The Supply and Activity of Physicians Providing Specialized and Focused Clinical Services to Older Adults in Ontario

Report from an Applied Health Research Question
Prepared for Provincial Geriatrics Leadership Ontario

March 2, 2026

Led by ICES McMaster and McMaster University in collaboration with Western University, Regional Geriatric Program Southwestern Ontario, Ontario Shores Centre for Mental Health Sciences, and Behavioural Supports Ontario Provincial Coordinating Office

Land Acknowledgement

This work was completed on the traditional territories of the Mississauga and Haudenosaunee nations, and within the lands protected by the "Dish with One Spoon" wampum agreement.

We acknowledge that clinical services for Ontarians spans many territories, including those of the First Nations, Inuit, and Métis Peoples. We recognize that these lands are the traditional, unceded, or treaty territories of Indigenous communities who continue to contribute to the strength and vibrancy of this nation.

We encourage readers to learn about the lands they inhabit and to honor the histories, languages, and cultures of the Indigenous communities in your local area. Let this acknowledgment be a call to action to deepen our understanding of Indigenous histories and work towards reconciliation in meaningful ways.

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List of Abbreviations

AHRQ	Applied Health Research Question
CAC	Certificate of Added Competence
CaRMS	Canadian Resident Matching Service
CCRS	Continuing Care Reporting System
CFPC	College of Family Physicians of Canada
CI	Confidence interval
CIHI	Canadian Institute of Health Information
COE	Care of the Elderly
CPDB	Corporate Providers Database
DAD	Discharge Abstract Database
FP	Family physician
FTE	Full-time equivalent
GMHOT	Geriatric Mental Health Outreach
HHR	Health human resources
HPG	Health Profile Group
IQR	Interquartile range
LHIN	Local Health Integration Network
MOH	Ministry of Health
NACRS	National Ambulatory Care Reporting System
OHIP	Ontario Health Insurance Plan
OHT	Ontario Health Team

PCPOP	Primary Care Population
PEM	Patient enrolment model
PGLO	Provincial Geriatrics Leadership Ontario
POP Grouper	CIHI Population Grouping Methodology
POP Projection	Population projection data
REF	Reference Files
RGP	Regional Geriatric Program
RPDB	Registered Persons Database
SD	Standard deviation
SDS	Same Day Surgery
SGS	Specialized geriatric services
SMH	Seniors mental health

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Executive Summary

Ontario's population is aging rapidly, with the number of adults aged 65 and older projected to exceed 3 million within the next five years. **This report assesses whether Ontario's supply of geriatric-focused physicians is keeping pace with current and future population needs based on older adults' current health service utilization patterns.** Geriatric-focused physicians include geriatricians, geriatric psychiatrists, and Care of the Elderly (COE) family physicians.

KEY FINDINGS

Workforce growth has not kept pace with population aging.

Between 2011 and 2023, the number of geriatricians nearly doubled (100 to 196), geriatric psychiatrists more than doubled (111 to 229), and COE family physicians increased substantially (31 to 169). Despite this growth, the supply of geriatric-focused physicians has not kept pace with the rapid expansion and increasing complexity of the older adult population. While most older adults are classified as having low disease burden, but the absolute number of individuals with high disease burden or approaching end-of-life has increased steadily. These groups disproportionately rely on specialized geriatric expertise.

Service volumes of geriatric-focused physicians have increased.

Across all three geriatric-focused physician groups, service volumes and total billings more than doubled over the study period. Hospital-based care remains the dominant setting for geriatricians and geriatric psychiatrists, while COE family physicians deliver care across more diverse settings. Geriatricians and geriatric psychiatrists do not routinely practice in long-term care. In all groups, virtual care expanded dramatically and represents a meaningful component of service delivery.

Mid-career physicians carry the highest workloads; younger cohorts contribute lower FTEs.

Full-time equivalent (FTE) analyses show that mid-career geriatric-focused physicians consistently deliver the greatest share of clinical services. Younger physicians within the three groups tend to contribute lower FTEs, raising concerns about future system capacity as current high-contributing cohorts retire. This pattern signals vulnerability in workforce sustainability, particularly given impending retirement rates and limited growth in new entrants.

Projected demand far exceeds anticipated supply.

Based on current health service utilization patterns, the demand for geriatricians is projected to nearly triple by 2048, requiring an increase from approximately 174 to 490 FTEs. Demand for geriatric psychiatrists is expected to rise as well, necessitating an increase from 176 to 340 FTEs, while demand for COE family physicians is projected to increase from 126 to 314 FTEs. **In contrast, projected supply either declines or grows far more slowly.** By 2048, Ontario is expected to face large and widening shortages of all geriatric-focused physician groups.

POLICY IMPLICATIONS

Without intervention, Ontario will face worsening shortages in geriatric care.

These findings indicate that current recruitment and retention strategies are insufficient to meet the needs of Ontario's aging population. Conservative projections suggest that gaps between supply and demand will widen substantially over the next 25 years.

Health workforce planning must shift from headcounts to needs-based, service utilization-informed models.

This study demonstrates the value of FTE-based health workforce planning grounded in actual service delivery, rather than crude physician-to-population ratios. Aligning workforce planning with population health profiles and service utilization patterns will better reflect system demand and guide more effective policy decisions.

Targeted strategies are urgently needed.

Priority actions include expanding and incentivizing geriatric-focused postgraduate training and strengthening pathways into focused practice models with older adults. Given the small share of geriatric services currently delivered in long-term care despite rising resident complexity, policy levers should also encourage greater specialist involvement in community and residential care settings to reduce reliance on reactive, costly, hospital-centered care.

Integrated, team-based models are essential to system sustainability.

Investments in interdisciplinary, community-based care models and collaborative case conferencing may help extend geriatric specialist reach, improve continuity of care, and mitigate workforce constraints.

TAKEAWAY MESSAGE

Ontario's geriatric-focused physician workforce is under increasing strain amid rising demand. While service delivery has expanded over time, **the projected demand based on current health service utilization trends will far exceed supply without decisive policy action**. Strengthening geriatric workforce capacity is critical to ensuring equitable access, improving care quality for older adults, and supporting the long-term sustainability of Ontario's health system.

Background

Context

The population of Ontario, Canada is growing larger and older,[1] and a comprehensive understanding of health professionals who provide clinical services to older adults is necessary to facilitate health services planning. Health professionals across multiple disciplines deliver care to older adults, and these providers can work together in teams to better support the complex needs of this population.[2] Older adults are the most frequent and costly users of health care services,[3] and they often require immediate and ongoing access to geriatric care for assessment, diagnosis, treatment, and rehabilitation.

In this study, we focused on the contributions of **physicians** in caring for older adults because we can utilize billing data to characterize their practice patterns and characteristics. Both generalist and specialist physicians care for older adults, but we concentrated on those who provide specialized and focused clinical services to older adults evidenced by advanced training and/or focused practice. This emphasis is not intended to minimize the essential role of interprofessional team members or non-specialist physicians, many of whom provide substantial care to older adults. Rather, we focus on geriatric-focused physicians because their expertise is especially critical in managing the most complex clinical situations involving older adults, and in supporting system capacity through education, mentorship, and research. Importantly, the presence of specialized physicians strengthens team-based care and benefits the broader workforce, underscoring that high-quality care for older adults is a shared responsibility across disciplines.

Physicians provide a range of clinical services to support the needs of older adults within community-based office settings, patients' place of residence (e.g., at home, in retirement homes, in long-term care homes), and in hospitals (e.g., outpatient programs/clinics, emergency departments, inpatient settings). Some of the services that physicians deliver to older adults are referred to as **specialized geriatric services** (SGS), in that they involve coordinated health care interventions and interdisciplinary teams to care for older adults with complex and comorbid physical, mental, functional, and psychosocial needs. Assessing current and projected disparities between physician supply and older adults' needs for clinical services can inform health workforce (or health human resource, HHR) planning, with the goal of ensuring that all older Ontarians have access to physicians who provide geriatric services to help maintain or improve their health and wellbeing.

Rationale

Every health system in Canada is currently grappling with HHR deficits amidst the increasing demands of population growth and aging.[4] Gaps in physician supply can result in unmet health needs, greater use of more costly health services, and poor patient satisfaction.[5–7] Unmet care needs can also exacerbate disease progression into more complicated, detrimental, and expensive health outcomes, particularly for medically complex older persons.[8,9]

There are longstanding shortages in the physician workforce with specialized skills to care for the increasing number of older adults.[10,11] Despite the widely recognized need for more providers, there is a large body of literature concerning limited interest among medical trainees in providing geriatric-focused care, negative impressions towards working with older adults, and an overall preference to pursue other specialties. The Canadian Resident Matching Service (CaRMS) consistently reports a low number of applicants and unfilled residency training positions for family medicine and geriatrics.[11]

Geriatric-focused Physician Workforce

Three groups of geriatric-focused physicians receive specialized and advanced training related to the processes of aging, managing frailty and multimorbidity, and providing holistic care to older adults in multiple care settings. They include:

1. **Geriatricians**
   Geriatricians are internal medicine specialists who pursue subspecialty training in geriatric medicine. Geriatricians frequently engage in hospital-based practice (commonly in academic health sciences centres or community hospitals),[12] and some deliver care in long-term care homes.[13]

2. **Geriatric psychiatrists**
   Geriatric psychiatrists are either (i) psychiatry specialists who completed subspecialty training in geriatrics or (ii) general psychiatrists who practice in a full- or part-time capacity in Seniors Mental Health (SMH) or Geriatric Mental Health Outreach (GMHOT). Geriatric psychiatrists provide care in community-based and hospital settings.[14]

3. **Family physicians with certification or focused practice in Care of the Elderly**
   Care of the Elderly (COE) family physicians (FPs) may have (i) pursued additional competency training and obtained certification to reflect enhanced skills relevant to supporting older adults and/or (ii) earned a focused billing designation to dedicate a portion of their family medicine practice towards care for older adults. Not all FPs with added competence in COE pursue a focused practice designation through the Ministry of Health (MOH), and not all focused practice FPs hold a COE Certificate of Added Competence (CAC) from the College of Family Physicians of Canada (CFPC).[15] This heterogeneous group practices in a variety of settings: community (office) settings, patients' place of residence (e.g., long-term care homes, retirement homes, patients' homes), and in hospital. They dedicate different portions of their medical practice to focused care for older patients.[16]

Extending Prior Work

Reporting to the MOH, Provincial Geriatrics Leadership Office (PGLO) maintains an asset inventory that identifies the availability and clinical activities of SGS and SMH programs to support older adults, both at the provincial and regional levels.[17] This inventory is updated

annually and is based on primary data that is collected from PGLO partners and organizations. Contributing data to the asset inventory is voluntary and the assets are not currently linked to other data sources for research or evaluation.

Previous studies have identified geriatric-focused physician resources in Ontario using different approaches (e.g., surveys, administrative data),[10,12,15,18] but **none have forecasted the supply of providers to inform HHR planning based on current health service utilization**. Notably, Borrie et al. (2021) collected primary data for resource mapping among geriatricians, geriatric psychiatrists, and COE FPs, and projected the number of new trainees expected to enter practice and those expected to retire by 2025.[12] The authors compared these numbers and projections against established specialist to population ratios for geriatricians and geriatric psychiatrists. In separate work using population-based administrative data, Correia et al. (2024) developed a novel classification for COE FPs through a data linkage with ICES and the CFPC, and described provider- and practice-level characteristics.[15] This approach laid the foundation for the current study to establish cohort definitions for other geriatric-focused physicians and examine trends in physician supply and utilization.

Objectives

This report builds on and extends previous literature by providing an updated inventory of geriatric-focused physician resources with respect to current population needs and trends over time. We aimed to extend methodologic approaches and enhance trending estimates relative to previous efforts to identify the current and projected future supply of physician resources pertinent to care for older adults in Ontario. **Our objective was to trend the supply and clinical activity of physicians providing SGS or SMH (or physicians with the capacity to provide SGS/SMH) over the past 10 years**, to inform future HHR planning policy for a growing and aging population.

Methodology

Setting

This work was conducted in Ontario, Canada, which is home to over 2.5 million older adults at the time of this study. The older adult population is expected to surpass 3 million in the next five years.[19] Ontario's SGS and SMH services form a dynamic, province-wide network that is strategically coordinated by PGLO and delivered through 11 Regional Geriatric Programs (RGPs) and Regional Specialized Geriatric Services. These programs connect and align local clinical teams that work collaboratively with primary care providers, community health professionals, and other partners to meet the complex needs of older adults living with dementia, frailty, and mental health conditions. Together, these programs form the backbone of Ontario's aging care clinical system.

This report describes findings from an **Applied Health Research Question** (AHRQ) conducted by ICES McMaster for PGLO. ICES is an independent, non-profit research institute that collects and analyzes health care and demographic data about publicly funded encounters in Ontario.

AHRQs assist knowledge users in conducting research activities to support policy development and planning to improve the health system.

We evaluated physician service utilization annually between 2011 and 2023. For each calendar year, the index date was defined as July 1st, and service use was assessed retrospectively over the preceding 12 months. Projected service use was estimated for the subsequent 25 years, extending through to 2048.

Data Source

We accessed multiple, population-based health administrative datasets at ICES, including the Corporate Providers Database (CPDB), Ontario Health Insurance Plan (OHIP), Registered Persons Database (RPDB), Ontario Population Estimates and Projections (POP), Canadian Institute for Health Information's National Ambulatory Care Reporting System (NACRS), Canadian Institute for Health Information's Discharge Abstract Database (DAD), Canadian Institute for Health Information's Same Day Surgery (SDS), Continuing Care Reporting System (CCRS), and Reference Files (REF). These datasets were linked using unique, encoded identifiers.

- **CPDB** includes registration and program eligibility information about individual health care providers, including physicians.
- **OHIP** contains information related to all publicly funded physician services in Ontario, including the dates of service delivery, associated diagnoses, location codes, and the physician's specialty.
- **RPDB** contains demographic information and vital statistics for all individuals eligible for provincial health insurance in Ontario.
- **PCPOP** is an ICES-derived dataset of all Ontarians who are deemed eligible for provincial health insurance. To be eligible for OHIP, individuals must be alive at index and have had some contact with the health care system within 7-9 years.
- **POP** contains inter-censal and post-censal estimates of the Canadian population by sex and age.
- **NACRS** captures information on patient visits to hospital and community-based ambulatory care.
- **DAD** captures administrative, clinical and demographic information, on hospital discharges including deaths, sign-outs and transfers.
- **SDS** contains patient-level data for day surgery institutions in Ontario.
- **CCRS** collects clinical and demographic data on residents receiving facility-based continuing care services.
- **REF** contains detailed information on various geographic variables used in conducting population-level analyses.

Study Population

We established two population-based cohorts. First, the **patient cohort** included all Ontarians aged 65 years and older who were eligible for OHIP and had contact with the health system in the 12 months preceding each study year (i.e., from July 1, 2010 to June 30, 2022). We excluded

individuals who were not alive or ineligible for OHIP coverage at the midpoint of each calendar year (July 1st), had no documented health care system contact within the preceding seven years, or were not residents of Ontario.

Second, a **physician cohort** comprised three groups of geriatric-focused physicians, who were identified using validated classifications (where possible) or by establishing new cohort definitions. Physicians were included if they submitted at least 50 billings for unique patient visits in any of the study years (i.e., July 1, 2011 to June 30, 2023), indicating they were active in practice.

1. **Geriatricians**
   Geriatricians were identified in administrative data by their specialty code (07) in OHIP and having at least 50 annual billings on unique service dates.

2. **Geriatric psychiatrists**
   Psychiatrists were recognized by their specialty code (19) in OHIP. In the absence of a validated approach to identify those with geriatric subspecialty training, we leveraged a previously developed classification.[20] We characterized geriatric psychiatrists as psychiatrists with at least 50% of their annual billings attributed to patients aged 65 years and older in the preceding calendar year.

3. **Care of the Elderly FPs**
   We identified COE FPs as those with the specialty code (00) in OHIP who billed one or more fee codes that are exclusive to those with the COE designation:
   - A967 (Focused practice assessment - care of the elderly)
   - K703 (Geriatric out-patient case conference)
   - B986 (Geriatric home visit special visit premium - travel premiums)
   - B988 (Geriatric home visit special visit premium - first person seen - weekdays, evenings, holidays)
   - K077 (Geriatric telephone support)

Patient Population Characteristics

Demographic characteristics of the patient population, including age and sex, were reported for Ontarians aged 65 years and older. Age and sex were reported at the index date of each calendar year. Trends in the older adult population were visualized over time and stratified by 5-year age groups and sex. We used the Canadian Institute for Health Information (CIHI) Population Grouping Methodology (POP Grouper) to estimate comorbidity count within a one-year lookback.

Older adult population projections

Three different data sources were used to describe the older adult study population (**Appendix 1**). RPDB was used to identify all Ontario residents with a valid health card number between 2011 and 2023. For comparison, we used annual population estimates from Statistics Canada (POP) over the same period. To visualize future trends, we used Statistics Canada's population

projection data (POP Projection) between the years of 2018 to 2031, which are generated at the census division level with projected population changes held constant across Local Health Integration Networks (LHINs).

Health service utilization among older adults

We further classified the older adult study population into four mutually exclusive **health profile groups** (HPGs) using a modified version of the CIHI POP Grouper.[21] The CIHI POP Grouper algorithm generates 16 mutually exclusive HPGs based on previous health care service utilization and diagnosis within a limited lookback window. For analytic purposes, repeated measures of the CIHI Pop Grouper algorithm were combined with mortality-related information (i.e., proximity to death date) and consolidated into four categories to enhance interpretability and facilitate population and physician workforce projections.

The POP Grouper algorithm was applied to two consecutive two-year intervals preceding the index date to generate two HPGs per individual. Outputs from both two-year intervals were combined with mortality-related information (i.e., time to death) according to a predefined hierarchy to generate the four categories utilized in this study:

1. Individuals with a recorded death date within one year of the index date were classified as **End-of-Life**.
2. Those with a death date between one and two years after the index date were classified as **Near End-of-Life**.

For the remaining individuals, we mapped the original POP Grouper profiles into two clinically meaningful categories based on diagnostic codes, and then applied hierarchy rules to reconcile discordant assignments between the two consecutive two-year intervals.[*]

3. The **High Disease Burden** group included anyone assigned to the POP Grouper classifications: palliative, major acute, major chronic, major cancer, minor chronic, and major mental health.
4. The **Low Disease Burden** category combines moderate and low-complexity groups, which encompassed the following HPGs: moderate chronic, moderate acute, other groups (i.e., other mental health and other cancer), as well as lower-intensity and healthy groups (i.e., minor acute, users with no health conditions, and non-users).

To reconcile discordant assignments between the two outputs of the POP Grouper algorithm, hierarchy rules were applied (**Figure 1**). Additionally, individuals identified as living within long-term care facilities were reclassified into the High Disease Burden group if they were initially grouped into the Low Disease Burden profile.

[*] Note: Due to our focus on older adults in this study, three HPGs derived by the POP Grouper methodology were not applicable (major newborn, obstetrics, and healthy newborn).

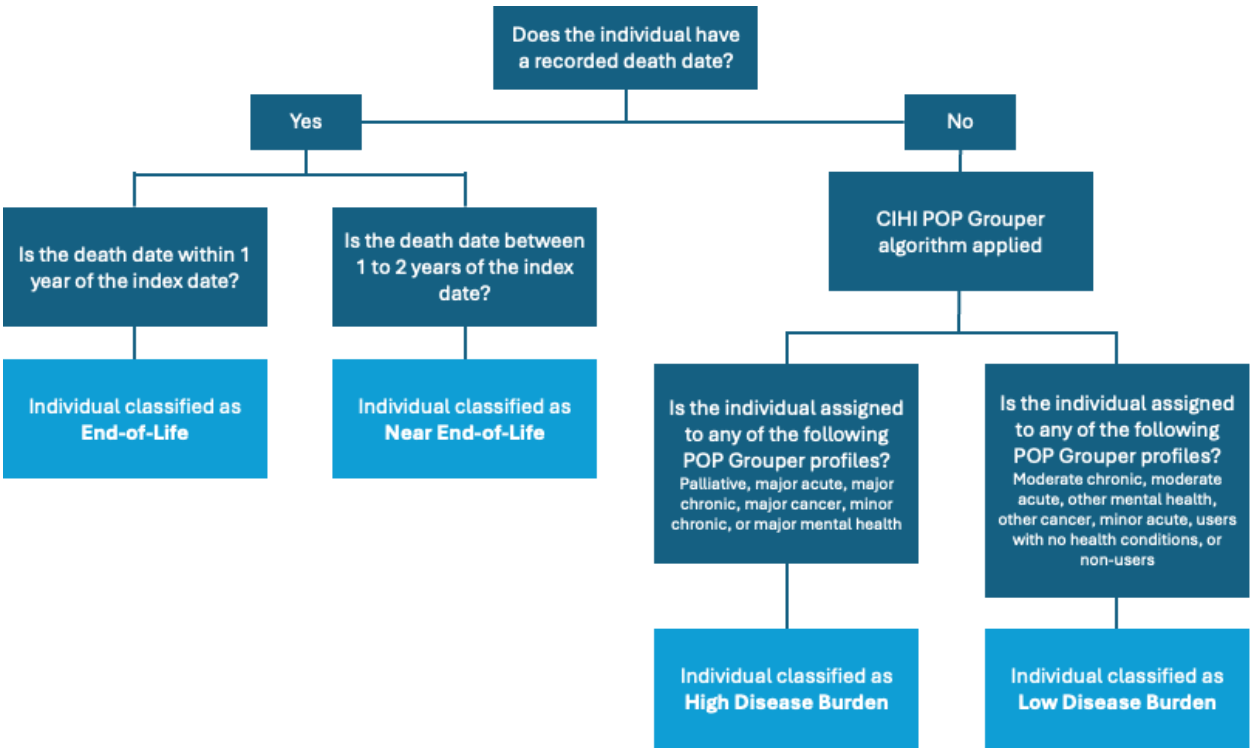

Figure 1. Assignment of older adults to modified health profile groups

Describing Physician Services

The patterns of physician services involved in care for older adults were described by examining billing codes submitted to OHIP. For each study year and physician type, we reported the count, mean, and standard deviation of various aspects of physician practice, including costs of OHIP billings (in CAD$), ages of patients cared for, visit counts in different health care settings, count of consultations provided, and count of referrals made. We also examined remuneration codes specific to each physician group, including comprehensive geriatric consultations (C775) for geriatricians, geriatric psychiatry consultations (C795) for geriatric psychiatrists, and focused practice assessments (A967) among COE FPs.

Projecting Physician Service Use and Supply Over Time

Geriatric-focused physician service use

We projected physician service use over time by constructing period LIFE tables based on a birth cohort identified from RPDB. LIFE tables are demographic tools of summarized mortality patterns within a population at a given time or across a cohort.[22] Mortality rates were calculated for each age group using 2023 data, and all projections were anchored to the 2023 birth cohort. This analysis began with individuals aged at least 40 years old to align with the period when demand for physician services typically increases. Although LIFE tables typically begin at birth, we chose to start at age 40 because in 25 years, these patients will be aged at least 65 years old.

We first calculated age-specific probabilities of death and applied them sequentially to estimate the number of survivors in each subsequent age group. The observed population count for 40-year-olds in 2023 was used as the starting population, and survival was projected forward. This process was repeated iteratively to extend projections 25 years into the future.

This process was repeated for each single-year age group in 2023, which allowed us to create same-year cohorts anchored in 2023. The resulting LIFE tables were then grouped by calendar year to create projected population counts for each future year. For physician service use projections, only individuals aged 65 to 100 years were retained in the final tables.

To extend these projections beyond overall population counts, they were further stratified according to the four HPGs described earlier. The **End-of-Life** group was defined as the proportion of the population that died each year derived directly from the probabilities of death. The **Near End-of-Life** group at each age was derived directly from the size of the End-of-Life group in the subsequent age. Assignment into the **High Disease Burden** and **Low Disease Burden** groups were based on age-specific distributions observed in 2023. A lookup table detailing the number of individuals in each HPG by single year of age from 40 to 100 was used to establish baseline proportions. These proportions were then applied to the remaining population to allocate individuals to High Disease Burden and Low Disease Burden groups.

To project geriatric-focused physician service use, we linked the population projections to estimates of physician full time equivalent (FTE) supply. In this study, FTE reflects visit volume and does not account for non-clinical activities that physicians may undertake (e.g., clinical management roles, teaching, research). For each age group in 2023, we calculated the number of visits to qualifying physicians and determined the distribution of these visits across the four HPGs. This allowed us to estimate the proportion of visits in each category. Physician service use was then expressed in terms of FTEs. A physician-level FTE was defined according to a threshold of annual visit volume based on the distribution of visits (**Appendix 2**). Based on this visualization, 1,000 visits represented 1.0 FTE for geriatric medicine and geriatric psychiatry, whereas 2,000 visits corresponded to 1.0 FTE for COE FPs. Physicians with fewer than 1,000 (among geriatricians and geriatricians) or 2,000 (for COE FPs) annual visits were assigned an FTE value proportional to their visit volume.

From the physician-level FTE values, we constructed a lookup table summarizing the distribution of FTE physicians across the four HPGs in 2023. This table was then linked to the projected LIFE tables to calculate the number of FTE physicians in each projected age and HPG.

Geriatric-focused physician supply

To project the physician workforce, we began by estimating age-specific retirement and entry patterns based on the physician cohorts identified from OHIP using our established classification algorithm. We applied a two-year follow up rule to determine whether a physician had retired. For each year that a physician was observed within, we examined their billing activities in the two years forward. Physicians were classified as **retired** if (i) they had less than 50 billings in both follow-up years or (ii) if they had less than 50 billings in the second follow-up

year, even when the first follow-up year had at least 50 billings. New physicians were identified by detecting new physician identification (ID) numbers appearing in the data compared to the previous year. For example, a physician ID present in 2012, but not present in 2011, was classified as a new entrant.

We used this information to construct annual tables summarizing the number of physicians who retired and the number of new physicians who entered the workforce by year and age. Age-specific annual retirement rates were calculated for each year from 2011 to 2023 as the number retired divided by the total number of physicians for each age. We averaged the retirements rates from the most recent ten years (2014-2023) for each single-year physician age. Physicians over the age of 69 were assumed to be retired, as retirement rates beyond this age were highly variable. To generate stable estimates, we categorized ages into five-year bins and calculated the average retirement rate for each bin. To generate single-year retirement rates between the five-year bins, we applied linear interpolations which provided smoother and more reliable age-specific retirement rate estimates for use in workforce projections. The same process was applied for new entrants and physician FTE calculations.

Then, to project future workforce, we applied the age-specific retirement probabilities sequentially to estimate the number of physicians who survived (i.e., did not retire) into each subsequent year. The observed count of 31-year-old physicians in 2023 served as the starting cohort, and retirement was projected forward annually. This process was repeated iteratively for every single-year age group in 2023, producing age-anchored cohorts that progressed the next 25 years.

After generating these survival-based retirement projections, results were grouped by projection year to produce the estimated physician workforce for each year. To account for new entrants, we assumed that the number of new physicians entering at each age remained constant. Based on the ten-year average estimates, these expected entries were then manually added into each corresponding year and age cohort.

Results

Descriptive Findings

Older adult study population

The population of older adults in Ontario increased from approximately 1.9 million in 2011 to 2.9 million in 2023 (**Table 1**). The proportion of females remained constant over time. There was growth in all age groups, with notable increases among individuals aged 65-69 and 70-74. There were more older adults living within each health region in 2023, although the percentage living in northern areas declined. The proportion of older adults with no or one comorbidity remained stable over time; there was a slight decrease among those with two or more chronic conditions.

Table 1. Demographics of older adults in Ontario, 2011 and 2023

	2011	2023
Total, N	1,897,309	2,884,493
Sex, n (%)		
Female	1,051,684 (55.4%)	1,562,737 (54.2%)
Age group, n (%)		
65-69	573,003 (30.2%)	889,933 (30.9%)
70-74	442,691 (23.3%)	720,223 (25.0%)
75-79	357,035 (18.8%)	556,851 (19.3%)
80-84	271,806 (14.3%)	356,619 (12.4%)
85-89	168,443 (8.9%)	217,060 (7.5%)
90+	84,331 (4.4%)	143,807 (5.0%)
Health region, n (%)		
Central	393,098 (20.7%)	685,239 (23.8%)
East	404,554 (21.3%)	636,079 (22.1%)
North East	99,494 (5.2%)	138,118 (4.8%)
North West	36,044 (1.9%)	50,780 (1.8%)
Toronto	385,985 (20.3%)	519,970 (18.0%)
West	578,134 (30.5%)	854,307 (29.6%)
New Ontario resident [a]		
Yes, n (%)	6,530 (0.3%)	13,050 (0.5%)
Comorbidity count [a]		
None	225,138 (11.9%)	438,349 (15.2%)
1	344,046 (18.1%)	580,738 (20.1%)
2	334,239 (17.6%)	479,712 (16.6%)
3+	993,886 (52.4%)	1,385,694 (48.0%)
Health profile groups of older adults included in projection modelling, n (%)		
Patient age group: 65-79		
End-of-life	25,560 (1.9%)	36,676 (1.7%)
Near end-of-life	27,682 (2.0%)	38,518 (1.8%)
High disease burden	138,855 (10.1%)	215,129 (9.9%)
Low disease burden	1,180,632 (86.0%)	1,876,684 (86.6%)
Patient age group: 80+		
End-of-life	43,478 (8.3%)	60,146 (8.4%)
Near end-of-life	43,751 (8.3%)	56,832 (7.9%)
High disease burden	104,577 (19.9%)	132,723 (18.5%)
Low disease burden	332,774 (63.4%)	467,785 (65.2%)

[a] within the previous year

Most older adults were classified as Low Disease Burden group across the study period (**Table 1** and **Figure 2**). The percentage of older adults within each HPG remained relatively stable over time.

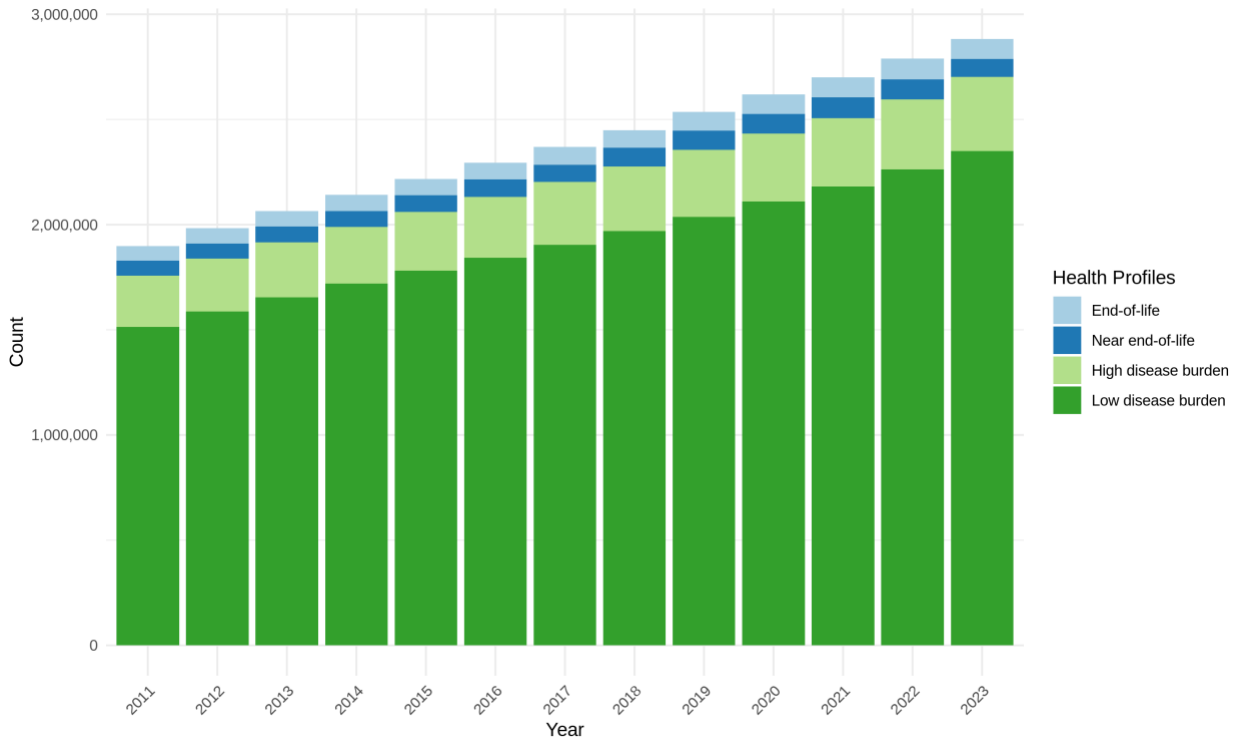

Figure 2. HPG classifications of older Ontarians over time, 2011 to 2023

Geriatric-focused physician cohort

Geriatricians

The number of active geriatricians in Ontario rose from 100 in 2011 to 196 in 2023 (**Table 2**). In each study year, most geriatricians were female and practiced in Toronto. No geriatricians primarily practiced in rural areas. The mean age of geriatricians declined slightly over time, as did the mean number of years in practice.

Geriatric psychiatrists

The size of the geriatric psychiatry workforce in Ontario more than doubled from 111 in 2011 to 229 in 2023 (**Table 2**). The sex distribution of geriatric psychiatrists was roughly equal over the study period. The mean age of geriatric psychiatrists rose over time, evidenced by fewer providers in the youngest age groups and growth in the oldest groups in the later years. Most geriatric psychiatrists practiced in the East and Toronto region, and none primarily practiced in rural areas.

Care of the Elderly FPs

The number of COE FPs rose sharply after 2015, which can be explained by a one-time exemption that allowed FPs who could demonstrate substantial practice experience with older adults to apply for a COE CAC. Evidently, the number of COE FPs grew from 31 in 2011 to 169 in 2023 (**Table 2**). In all study years, slightly more COE FPs were female, but the mean age remained constant. In earlier study years, most COE FPs practiced comprehensively (meaning they cared for patients across the age spectrum and delivered a variety of medical services). However, since 2021, approximately one-third of COE FPs' medical practices are characterized as focused. Few FPs, but increasingly more over time, practiced in rural areas.

Table 2. Characteristics of geriatric-focused physicians, 2011 to 2023

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Geriatricians													
Total, n	100	110	117	123	132	141	148	157	160	174	173	182	196
Sex, n (%)													
Female	52 (52.0%)	58 (52.7%)	63 (53.8%)	69 (56.1%)	72 (54.5%)	79 (56.0%)	84 (56.8%)	89 (56.7%)	90 (56.3%)	101 (58.0%)	99 (57.2%)	108 (59.3%)	118 (60.2%)
Age (years)													
Mean (SD)	50.33 (8.8)	50.06 (9.6)	50.68 (9.9)	50.46 (10.4)	51.01 (10.7)	50.79 (11.1)	50.34 (11.3)	50.34 (11.6)	50.40 (11.7)	49.54 (11.9)	49.39 (12.1)	49.49 (12.3)	49.41 (12.4)
Age group (years), n (%)													
30-39	*6-10	*13-17	*15-19	*21-25	*21-25	*28-32	37 (25.0%)	40 (25.5%)	40 (25.0%)	49 (28.2%)	53 (30.6%)	56 (30.8%)	59 (30.1%)
40-49	40 (40.0%)	37 (33.6%)	35 (29.9%)	33 (26.8%)	39 (29.5%)	37 (26.2%)	*32-36	*33-37	35 (21.9%)	36 (20.7%)	31 (17.9%)	38 (20.9%)	46 (23.5%)
50-59	33 (33.0%)	37 (33.6%)	40 (34.2%)	36 (29.3%)	36 (27.3%)	39 (27.7%)	41 (27.7%)	41 (26.1%)	42 (26.3%)	48 (27.6%)	47 (27.2%)	43 (23.6%)	40 (20.4%)
60-69	16 (16.0%)	18 (16.4%)	22 (18.8%)	28 (22.8%)	31 (23.5%)	32 (22.7%)	33 (22.3%)	38 (24.2%)	36 (22.5%)	33 (19.0%)	32 (18.5%)	33 (18.1%)	39 (19.9%)
70+	*1-5	*1-5	*1-5	*1-5	*1-5	*1-5	*1-5	*1-5	7 (4.4%)	8 (4.6%)	10 (5.8%)	12 (6.6%)	12 (6.1%)
Years in practice													
Mean (SD)	16.47 (9.9)	16.35 (10.3)	16.19 (10.6)	15.98 (10.9)	16.25 (11.0)	16.16 (11.1)	15.73 (11.2)	15.79 (11.3)	15.76 (11.3)	15.29 (11.5)	15.25 (11.5)	15.02 (11.4)	15.08 (11.5)
Practice location, n (%) [a]													
Central	20 (20.0%)	25 (22.7%)	28 (23.9%)	30 (24.4%)	32 (24.2%)	35 (24.8%)	36 (24.3%)	38 (24.2%)	39 (24.4%)	42 (24.1%)	42 (24.3%)	41 (22.5%)	44 (22.4%)
East	*13-17	*14-18	*15-19	*16-20	*20-24	*22-26	22 (14.9%)	22 (14.0%)	23 (14.4%)	27 (15.5%)	30 (17.3%)	32 (17.6%)	34 (17.3%)
North East	*1-5	*1-5	*1-5	*1-5	*1-5	*1-5	*1-5	*2-6	*1-5	*1-5	*1-5	*1-5	*1-5
North West	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	*1-5	*1-5	*1-5	*1-5	*1-5	*3-7	*2-6	*2-6	*2-6
Toronto	35 (35.0%)	38 (34.5%)	41 (35.0%)	45 (36.6%)	46 (34.8%)	47 (33.3%)	49 (33.1%)	54 (34.4%)	57 (35.6%)	60 (34.5%)	58 (33.5%)	62 (34.1%)	69 (35.2%)
West	27 (27.0%)	28 (25.5%)	28 (23.9%)	27 (22.0%)	29 (22.0%)	32 (22.7%)	35 (23.6%)	36 (22.9%)	35 (21.9%)	37 (21.3%)	36 (20.8%)	40 (22.0%)	42 (21.4%)
Percentage practicing in rural areas, n (%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Geriatric psychiatrists													
Total, n	111	114	120	146	143	159	169	173	182	189	202	226	229
Sex, n (%)													
Female	47 (42.3%)	53 (46.5%)	51 (42.5%)	61 (41.8%)	62 (43.4%)	69 (43.4%)	75 (44.4%)	79 (45.7%)	84 (46.2%)	91 (48.1%)	99 (49.0%)	118 (52.2%)	121 (52.8%)
Age (years)													
Mean (SD)	52.15 (11.8)	53.04 (11.5)	52.23 (10.9)	52.87 (11.5)	52.71 (12.6)	55.13 (13.0)	54.47 (13.1)	55.32 (14.2)	55.47 (14.5)	55.11 (14.5)	56.18 (14.4)	56.57 (15.0)	57.14 (14.5)
Age group (years), n (%)													
<30	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	*1-5	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
30-39	18 (16.2%)	18 (15.8%)	18 (15.0%)	21 (14.4%)	23 (16.1%)	20 (12.6%)	21 (12.4%)	24 (13.9%)	27 (14.8%)	32 (16.9%)	27 (13.4%)	34 (15.0%)	31 (13.5%)
40-49	33 (29.7%)	24 (21.1%)	30 (25.0%)	40 (27.4%)	39 (27.3%)	42 (26.4%)	49 (29.0%)	46 (26.6%)	46 (25.3%)	44 (23.3%)	50 (24.8%)	51 (22.6%)	53 (23.1%)
50-59	29 (26.1%)	39 (34.2%)	43 (35.8%)	42 (28.8%)	34 (23.8%)	39 (24.5%)	38 (22.5%)	34 (19.7%)	35 (19.2%)	40 (21.2%)	42 (20.8%)	44 (19.5%)	47 (20.5%)
60-69	24 (21.6%)	25 (21.9%)	22 (18.3%)	29 (19.9%)	31 (21.7%)	35 (22.0%)	38 (22.5%)	42 (24.3%)	43 (23.6%)	38 (20.1%)	41 (20.3%)	44 (19.5%)	40 (17.5%)
70+	7 (6.3%)	8 (7.0%)	7 (5.8%)	*9-13	*11-15	23 (14.5%)	23 (13.6%)	27 (15.6%)	31 (17.0%)	35 (18.5%)	42 (20.8%)	53 (23.5%)	58 (25.3%)
Years in practice													
Mean (SD)	18.44 (11.6)	19.05 (11.6)	18.75 (11.9)	18.48 (12.1)	18.01 (12.6)	19.31 (12.4)	18.59 (12.5)	19.29 (12.6)	18.74 (13.0)	19.03 (12.9)	20.17 (12.8)	19.80 (12.8)	20.28 (12.6)
Practice location, n (%) [a]													
Central	*4-8	*5-9	*7-11	*12-16	*9-13	*10-14	*13-17	*11-15	*11-15	*16-20	*18-22	21 (9.3%)	23 (10.0%)
East	33 (29.7%)	36 (31.6%)	36 (30.0%)	40 (27.4%)	41 (28.7%)	43 (27.0%)	50 (29.6%)	51 (29.5%)	54 (29.7%)	56 (29.6%)	58 (28.7%)	60 (26.5%)	64 (27.9%)
North East	*1-5	*1-5	*1-5	*1-5	*1-5	*1-5	*1-5	*1-5	*1-5	*1-5	*1-5	*4-8	*1-5
North West	*1-5	*1-5	*1-5	*1-5	*1-5	*1-5	*1-5	*1-5	*1-5	*1-5	*1-5	*1-5	*1-5
Toronto	50 (45.0%)	52 (45.6%)	57 (47.5%)	67 (45.9%)	71 (49.7%)	78 (49.1%)	81 (47.9%)	82 (47.4%)	90 (49.5%)	87 (46.0%)	96 (47.5%)	102 (45.1%)	104 (45.4%)

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
West	19 (17.1%)	16 (14.0%)	15 (12.5%)	22 (15.1%)	17 (11.9%)	23 (14.5%)	20 (11.8%)	24 (13.9%)	22 (12.1%)	25 (13.2%)	25 (12.4%)	34 (15.0%)	32 (14.0%)
Percentage practicing in rural areas, n (%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Care of the Elderly FPs													
Total, n	31	45	37	60	79	139	159	129	134	137	155	169	169
Sex, n (%)													
Female	19 (61.3%)	26 (57.8%)	21 (56.8%)	38 (63.3%)	45 (57.0%)	84 (60.4%)	101 (63.5%)	88 (68.2%)	82 (61.2%)	87 (63.5%)	109 (70.3%)	122 (72.2%)	110 (65.1%)
Age (years)													
Mean (SD)	46.94 (12.4)	51.09 (13.2)	48.81 (13.6)	48.23 (12.9)	47.35 (11.4)	47.16 (12.2)	46.77 (12.7)	46.16 (11.9)	45.72 (10.8)	46.42 (10.6)	45.97 (11.0)	45.57 (11.9)	46.40 (11.3)
Age group (years), n (%)													
<30	0 (0.0%)	0 (0.0%)	0 (0.0%)	*1-5	*1-5	*1-5	*1-5	*1-5	*1-5	0 (0.0%)	*1-5	*1-5	*1-5
30-39	10 (32.3%)	10 (22.2%)	10 (27.0%)	14 (23.3%)	19 (24.1%)	46 (33.1%)	58 (36.5%)	53 (41.1%)	49 (36.6%)	45 (32.8%)	53 (34.2%)	65 (38.5%)	55 (32.5%)
40-49	10 (32.3%)	13 (28.9%)	13 (35.1%)	21 (35.0%)	28 (35.4%)	34 (24.5%)	41 (25.8%)	21 (16.3%)	31 (23.1%)	36 (26.3%)	37 (23.9%)	42 (24.9%)	46 (27.2%)
50-59	*1-5	12 (26.7%)	7 (18.9%)	14 (23.3%)	19 (24.1%)	33 (23.7%)	28 (17.6%)	32 (24.8%)	35 (26.1%)	42 (30.7%)	45 (29.0%)	36 (21.3%)	40 (23.7%)
60-69	*6-10	*1-5	*1-5	*1-5	*8-12	18 (12.9%)	19 (11.9%)	12 (9.3%)	13 (9.7%)	*9-13	*15-19	18 (10.7%)	22 (13.0%)
70+	*1-5	*5-9	*2-6	*1-5	*1-5	*3-7	*8-12	*6-10	*1-5	*1-5	*1-5	*3-7	*1-5
Years in practice													
Mean (SD)	16.26 (11.7)	18.67 (12.0)	15.03 (10.6)	14.95 (10.9)	16.01 (11.1)	15.24 (12.0)	14.65 (12.2)	14.10 (11.7)	13.58 (10.3)	14.14 (10.2)	14.25 (11.1)	13.61 (11.1)	14.14 (10.8)
Practice type, n (%)													
Comprehensive	18 (58.1%)	28 (62.2%)	14 (37.8%)	34 (56.7%)	44 (55.7%)	96 (69.1%)	106 (66.7%)	81 (62.8%)	78 (58.2%)	66 (48.2%)	16 (10.3%)	20 (11.8%)	57 (33.7%)
Focused	*8-12	8 (17.8%)	10 (27.0%)	11 (18.3%)	21 (26.6%)	20 (14.4%)	30 (18.9%)	20 (15.5%)	32 (23.9%)	36 (26.3%)	56 (36.1%)	67 (39.6%)	53 (31.4%)
Other or <44 days in practice	*1-5	9 (20.0%)	13 (35.1%)	15 (25.0%)	14 (17.7%)	23 (16.5%)	23 (14.5%)	28 (21.7%)	24 (17.9%)	35 (25.5%)	83 (53.5%)	82 (48.5%)	59 (34.9%)
Practice location, n (%)													
Central	*5-9	10 (22.2%)	8 (21.6%)	18 (30.0%)	24 (30.4%)	40 (28.8%)	49 (30.8%)	35 (27.1%)	27 (20.1%)	37 (27.0%)	33 (21.3%)	36 (21.3%)	32 (18.9%)
East	16 (51.6%)	16 (35.6%)	14 (37.8%)	16 (26.7%)	24 (30.4%)	32 (23.0%)	39 (24.5%)	33 (25.6%)	40 (29.9%)	41 (29.9%)	44 (28.4%)	53 (31.4%)	58 (34.3%)
North East	*1-5	*1-5	*1-5	6 (10.0%)	*4-8	14 (10.1%)	*12-16	*16-20	*10-14	*9-13	*10-14	*10-14	*9-13
North West	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	*1-5	0 (0.0%)	*1-5	*1-5	*1-5	*1-5	*1-5	*1-5	*1-5
Toronto	*1-5	11 (24.4%)	7 (18.9%)	11 (18.3%)	13 (16.5%)	28 (20.1%)	27 (17.0%)	19 (14.7%)	26 (19.4%)	23 (16.8%)	35 (22.6%)	39 (23.1%)	37 (21.9%)
West	*1-5	*3-7	*3-7	9 (15.0%)	9 (11.4%)	25 (18.0%)	27 (17.0%)	21 (16.3%)	26 (19.4%)	22 (16.1%)	28 (18.1%)	26 (15.4%)	28 (16.6%)
Percentage practicing in rural areas, n (%)	*1-5	*1-5	*1-5	*1-5	*1-5	10 (7.2%)	14 (8.8%)	*3-7	11 (8.2%)	13 (9.5%)	9 (5.8%)	15 (8.9%)	13 (7.7%)

FP=family physician; SD=standard deviation

Patients within health profile groups receiving geriatric care

Geriatricians

In 2011, a small proportion of older adults received care from geriatricians, ranging from 0.01-0.39% of patients aged 65-79 and 0.03-0.23% of those aged 80+ (**Table 3**). These proportions increased slightly by 2023: 0.01-0.53% of patients aged 65-79 and 0.04-0.32% of those aged 80+ received geriatrician care. At both time points, geriatricians increasingly cared for older adults within the Near End-of-Life and End-of-Life HPGs. A slightly greater proportion of individuals aged 40-64, who were assigned to the End-of-Life and Near End-of-Life groups, received care from geriatricians.

Geriatric psychiatrists

Geriatric psychiatrists also increasingly cared for older adults assigned to the End-of-Life and Near End-of-Life HPGs over time (**Table 3**). Compared to geriatricians, fewer older adults received care from geriatric psychiatrists, and they tended to care for patients in the younger age categories (i.e., more patients aged 40-64 received geriatric psychiatry care than those aged 65-79 and 80+).

Care of the Elderly FPs

Compared to geriatricians and geriatric psychiatrists, patients within all age groups were less likely to receive care from COE FPs (ranging from 0.00-0.12%) (**Table 3**). In 2023, patients age 40-64 most frequently received care from COE FPs compared to the older age groups.

Table 3. Patients' contact with geriatric-focused physicians, 2011 to 2023

	2011		2023	
	Population count	**Number (%) of patients**	**Population count**	**Number (%) of patients**
Geriatricians				
Clinician count	100	-	196	-
Patient age group: 40-64, n (% [a])				
End-of-life	16,112	33 (0.20%)	18,167	64 (0.35%)
Near end-of-life	17,651	35 (0.20%)	18,182	49 (0.32%)
High disease burden	159,639	77 (0.05%)	184,854	150 (0.08%)
Low disease burden	4,570,469	83 (0.00%)	4,749,760	154 (0.00%)
Patient age group: 65-79, n (% [a])				
End-of-life	25,560	99 (0.39%)	36,676	193 (0.53%)
Near end-of-life	27,682	98 (0.35%)	38,518	193 (0.50%)
High disease burden	138,855	100 (0.07%)	215,129	195 (0.09%)
Low disease burden	1,180,632	100 (0.01%)	1,876,684	195 (0.01%)
Patient age group: 80+, n (% [a])				
End-of-life	43,478	100 (0.23%)	60,146	195 (0.32%)
Near end-of-life	43,751	99 (0.23%)	56,832	195 (0.34%)
High disease burden	104,577	99 (0.09%)	132,723	196 (0.15%)
Low disease burden	332,774	100 (0.03%)	467,785	195 (0.04%)
Geriatric psychiatrists				
Clinician count	111	-	229	-
Patient age group: 40-64, n (% [a])				
End-of-life	16,112	45 (0.28%)	18,167	124 (0.68%)
Near end-of-life	17,651	57 (0.32%)	18,182	93 (0.62%)
High disease burden	159,639	98 (0.06%)	184,854	204 (0.11%)
Low disease burden	4,570,469	104 (0.00%)	4,749,760	211 (0.00%)
Patient age group: 65-79, n (% [a])				
End-of-life	25,560	95 (0.37%)	36,676	181 (0.49%)
Near end-of-life	27,682	91 (0.33%)	38,518	171 (0.51%)
High disease burden	138,855	110 (0.08%)	215,129	221 (0.10%)
Low disease burden	1,180,632	110 (0.01%)	1,876,684	225 (0.01%)

	2011		2023	
Patient age group: 80+, n (% [a])				
End-of-life	43,478	102 (0.23%)	60,146	173 (0.29%)
Near end-of-life	43,751	103 (0.24%)	56,832	168 (0.33%)
High disease burden	104,577	105 (0.10%)	132,723	203 (0.15%)
Low disease burden	332,774	105 (0.03%)	467,785	206 (0.04%)
Care of the Elderly FPs				
Clinician count	31	-	169	-
Patient age group: 40-64, n (% [a])				
End-of-life	16,112	20 (0.12%)	18,167	112 (0.62%)
Near end-of-life	17,651	18 (0.10%)	18,182	110 (0.73%)
High disease burden	159,639	29 (0.02%)	184,854	155 (0.08%)
Low disease burden	4,570,469	30 (0.00%)	4,749,760	153 (0.00%)
Patient age group: 65-79, n (% [a])				
End-of-life	25,560	30 (0.12%)	36,676	159 (0.43%)
Near end-of-life	27,682	30 (0.11%)	38,518	160 (0.48%)
High disease burden	138,855	31 (0.02%)	215,129	167 (0.08%)
Low disease burden	1,180,632	30 (0.00%)	1,876,684	164 (0.01%)
Patient age group: 80+, n (% [a])				
End-of-life	43,478	30 (0.07%)	60,146	166 (0.28%)
Near end-of-life	43,751	30 (0.07%)	56,832	165 (0.33%)
High disease burden	104,577	31 (0.03%)	132,723	165 (0.12%)
Low disease burden	332,774	31 (0.01%)	467,785	164 (0.03%)

FPs=family physicians

[a] Percentage of patients in the population age group and health profile group who receive care from geriatricians, Care of the Elderly FPs, or geriatric psychiatrists

How to Interpret Findings in Table 3

The percentages in **Table 3** represent individuals in the population (within each age group and HPG) who receive care from geriatric-focused physicians.

Example: Among older adults aged 80+ assigned to the End-of-Life group (2011: n=43,478 | 2023: n=60,146), the proportion who received care from geriatricians increased from 0.23% in 2011 to 0.32% in 2023.

Example: In 2023, individuals aged 40-64 who were Near End-of-Life (n=18,182) increasingly received care from geriatric psychiatrists (0.62%) and COE FPs (0.73%), compared to geriatricians (0.32%).

Caring for patients within health profile groups

Geriatricians

In 2011, most geriatricians cared for patients aged 65+ who were assigned to each HPG (ranging from 98.0% to 100.0%) (**Table 4**). The same was true in 2023, although the range differed (98.5% to 100.0%). The proportion of geriatricians who delivered care to patients aged 40-64, regardless of HPG, remained constant over time.

Geriatric psychiatrists

In both 2011 and 2023, geriatric psychiatrists most frequently cared for patients aged 65-79 and 80+ in the High Disease Burden and Low Disease Burden HPGs (compared to the End-of-Life or Near End-of-Life groups) (**Table 4**). Compared to geriatricians, more geriatric psychiatrists cared for patients aged 40-64 (ranging from 40.6% to 92.1% in 2023).

Care of the Elderly FPs

Most COE FPs provided care to older adults aged 65-79 and 80+ across all HPGs (ranging from 96.8% to 100.0% in 2011 and 94.1% to 98.8% in 2023) (**Table 4**). Few COE FPs cared for patients aged 40-64 in the End-of-Life and Near End-of-Life HPGs.

Table 4. Geriatric-focused physicians' contact with patients assigned to HPGs, 2011 to 2023

	2011		2023	
	Population count	**Number (%) of physicians**	**Population count**	**Number (%) of physicians**
Geriatricians				
Clinician count	100	-	196	-
Patient age group: 40-64, n (% [a])				
End-of-life	16,112	33 (33.0%)	18,167	64 (32.7%)
Near end-of-life	17,651	35 (35.0%)	18,182	49 (29.6%)
High disease burden	159,639	77 (77.0%)	184,854	150 (76.5%)
Low disease burden	4,570,469	83 (83.0%)	4,749,760	154 (78.1%)
Patient age group: 65-79, n (% [a])				
End-of-life	25,560	99 (99.0%)	36,676	193 (98.5%)
Near end-of-life	27,682	98 (98.0%)	38,518	193 (98.5%)
High disease burden	138,855	100 (100.0%)	215,129	195 (99.5%)
Low disease burden	1,180,632	100 (100.0%)	1,876,684	195 (99.5%)
Patient age group: 80+, n (% [a])				
End-of-life	43,478	100 (100.0%)	60,146	195 (99.5%)
Near end-of-life	43,751	99 (99.0%)	56,832	195 (99.5%)
High disease burden	104,577	99 (99.0%)	132,723	196 (100.0%)
Low disease burden	332,774	100 (100.0%)	467,785	195 (99.5%)
Geriatric psychiatrists				
Clinician count	111	-	229	-
Patient age group: 40-64, n (% [a])				
End-of-life	16,112	45 (40.5%)	18,167	124 (54.1%)
Near end-of-life	17,651	57 (51.4%)	18,182	93 (40.6%)
High disease burden	159,639	98 (88.3%)	184,854	204 (89.1%)
Low disease burden	4,570,469	104 (93.7%)	4,749,760	211 (92.1%)
Patient age group: 65-79, n (% [a])				
End-of-life	25,560	95 (85.6%)	36,676	181 (79.0%)
Near end-of-life	27,682	91 (82.0%)	38,518	171 (74.7%)
High disease burden	138,855	110 (99.1%)	215,129	221 (96.5%)
Low disease burden	1,180,632	110 (99.1%)	1,876,684	225 (98.3%)
Patient age group: 80+, n (% [a])				
End-of-life	43,478	102 (91.9%)	60,146	173 (75.5%)
Near end-of-life	43,751	103 (92.8%)	56,832	168 (73.4%)
High disease burden	104,577	105 (94.6%)	132,723	203 (88.6%)
Low disease burden	332,774	105 (94.6%)	467,785	206 (90.0%)
Care of the Elderly FPs				
Clinician count	31	-	169	-
Patient age group: 40-64, n (% [a])				
End-of-life	16,112	20 (64.5%)	18,167	112 (66.3%)
Near end-of-life	17,651	18 (58.1%)	18,182	110 (65.1%)
High disease burden	159,639	29 (93.5%)	184,854	155 (91.7%)
Low disease burden	4,570,469	30 (96.8%)	4,749,760	153 (90.5%)
Patient age group: 65-79, n (% [a])				
End-of-life	25,560	30 (96.8%)	36,676	159 (94.1%)
Near end-of-life	27,682	30 (96.8%)	38,518	160 (94.7%)
High disease burden	138,855	31 (100.0%)	215,129	167 (98.8%)
Low disease burden	1,180,632	30 (96.8%)	1,876,684	164 (97.0%)
Patient age group: 80+, n (% [a])				
End-of-life	43,478	30 (96.8%)	60,146	166 (98.2%)
Near end-of-life	43,751	30 (96.8%)	56,832	165 (97.6%)
High disease burden	104,577	31 (100.0%)	132,723	165 (97.6%)
Low disease burden	332,774	31 (100.0%)	467,785	164 (97.0%)

FPs=family physicians

[a] Percentage of patients in the population age group and health profile group who receive care from geriatricians, Care of the Elderly FPs, or geriatric psychiatrists

How to Interpret Findings in Table 4

The percentages in **Table 4** convey geriatric-focused physicians who provide care to individuals in the population (within each age group and HPG).

Example: In 2023, all 196 geriatricians (100.0%) provided care to patients aged 80+ with a High Disease Burden.

Example: In 2023, the 169 COE FPs more frequently cared for End-of-Life older adults aged 80+ (98.2%) or 65-79 (94.1%) compared to those aged 40-64 (66.3%).

Comparing geriatric-focused physician resources to older adults

Figure 3 illustrates the steady growth of Ontario's older adult population across all HPGs, with the majority classified as Low Disease Burden, followed by smaller but consistent proportions in High Disease Burden, Near End-of-Life, and End-of-Life.

Overlaying the bars, the lines demonstrate increases in all three geriatric-focused physician groups over time. COE FPs experienced the sharpest growth, particularly after 2015. Geriatric psychiatrists increased steadily, while geriatricians grew more gradually but consistently. Despite these gains, the gap between population growth and physician supply remains evident.

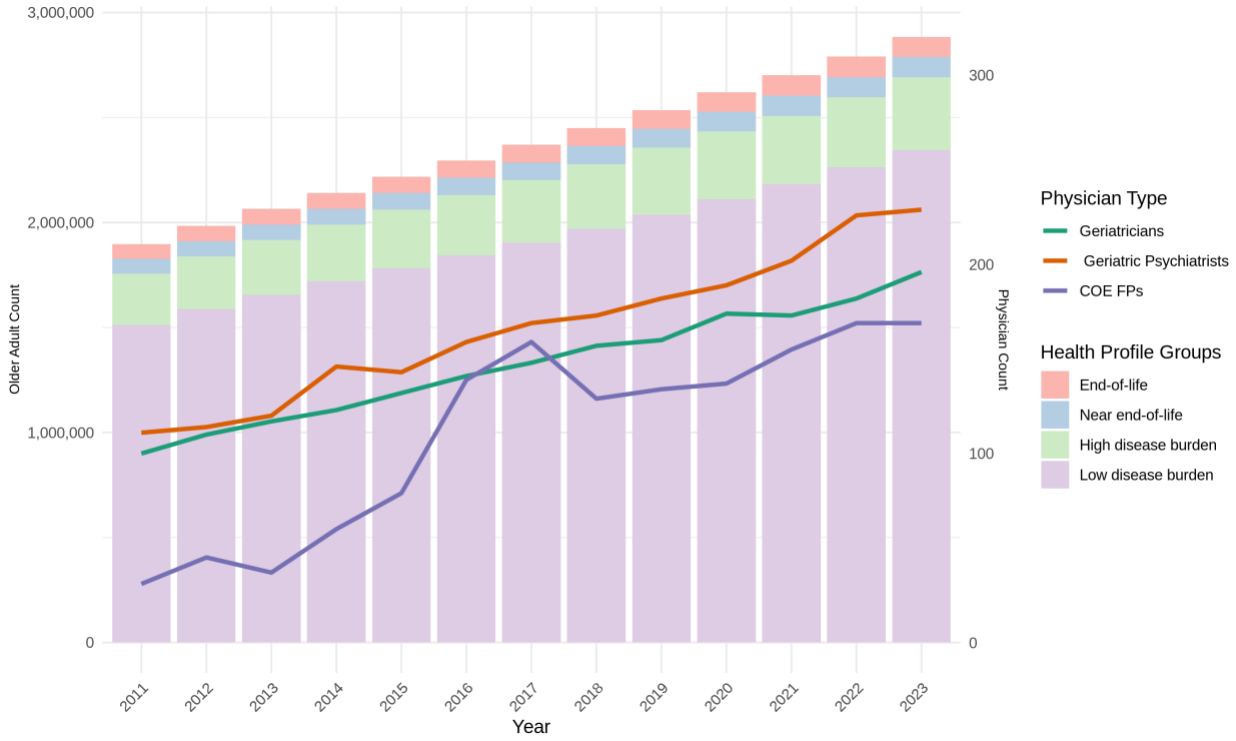

Figure 3. Geriatric-focused physician resources relative to older adults by HPG, 2011 to 2023

Utilization of Geriatric-focused Physician Services

Geriatricians

Geriatricians experienced substantial growth in service volume over the study period (**Table 5**). Their total OHIP billings more than doubled, increasing by 142% from $8.5 million in 2011 to $20.6 million in 2023. This rise was driven by dramatic increases in virtual visits (including both telephone and video encounters) by over 3,100% and home visits by 737%. Inpatient hospital care remained the largest contributor to costs, but its share slightly declined as other settings expanded over time. Office-based visit count rose by 21.8%, with virtual visits rising steeply from 299 to 11,730. Consultations and referrals also grew significantly (60% and 87%, respectively). The mean age of patients cared for remained stable at around 82 years.

Geriatric psychiatrists

The geriatric psychiatry workforce experienced growth in service delivery and changes in visit modality between 2011 and 2023 (**Table 5**). Total OHIP billings more than doubled, climbing from $12.6 million to $28.3 million. Virtual visits increased dramatically by over 28,000%. Inpatient hospital activity also grew substantially (+72%), underscoring persistent demand for acute psychiatric care, even as office visits declined slightly. The average cost per billing rose by nearly 30%. The patient mix shifted toward slightly younger older adults, with mean age dropping from 78.4 to 76.9 years. The number of referrals nearly doubled over the study period, alongside a 60% rise in consultations.

Care of the Elderly FPs

COE FPs demonstrated the most dramatic growth, with total OHIP billings increasing by 316%, from $2.5 million to $10.2 million over the study period (**Table 5**). This expansion reflects both a sharp rise in the number of COE FPs and service diversification. Office-based care costs grew by 453%, while home visits grew by 3,860%, and emergency department visits became notable. Virtual care emerged as a significant component, with virtual visits reaching over 32,000 by 2023. The total visit count increased across all settings, with long-term care home visits up 54% and hospital visits up 92%. Consultations tripled (239% increase) and referrals grew by 434%. The mean patient age declined slightly (from 82 to 79 years).

Table 5. Geriatric-focused physician services, 2011 and 2023

	2011	2023	Percent change
Geriatricians			
Total cost of OHIP billings ($)	8,478,387	20,557,574	142.47%
Total cost of OHIP billings by location ($)			
Office (community-based)	4,757,599	8,996,952	89.11%
Virtual [a]	37,784	1,225,840	3,144.36%
Home	45,529	381,215	737.30%
Long-term care home	82,732	398,061	381.15%
Hospital (inpatient care)	3,174,771	8,539,293	168.97%
Emergency department	204,489	437,329	113.86%
Unknown	175,484	578,884	229.88%

	2011	2023	Percent change
Mean cost of OHIP billings ($)	68.45	106.08	54.96%
Mean age of patients cared for	82.21	82.19	-0.03%
Total visit count by setting			
Office (community-based)	44,517	54,211	21.78%
Virtual [a]	299	11,730	3,823.08%
Home	416	2,589	522.36%
Long-term care home	2,835	3,844	35.59%
Hospital (inpatient care)	69,592	107,258	54.12%
Emergency department	1,438	1,696	17.94%
Unknown	4,757	12,466	162.06%
Mean percentage of billings by setting (%)			
Office (community-based)	35.94%	27.97%	-22.17%
Virtual [a]	0.24%	6.05%	2,407.24%
Home	0.34%	1.34%	297.75%
Long-term care home	2.29%	1.98%	-13.34%
Hospital (inpatient care)	56.19%	55.35%	-1.50%
Emergency department	1.16%	0.88%	-24.62%
Unknown	3.84%	6.43%	67.48%
Count of consultations completed by the physician	31,261	50,140	60.39%
Count of referrals made to another physician	25,929	48,393	86.64%
Geriatric psychiatrists			
Total cost of OHIP billings ($)	12,588,972	28,255,965	124.45%
Total cost of OHIP billings by location ($)			
Office (community-based)	5,823,057	7,473,980	28.35%
Virtual [a]	25,334	7,277,793	28,627.54%
Home	582,389	586,397	0.69%
Long-term care home	922,969	1,084,895	17.54%
Hospital (inpatient care)	5,076,157	11,433,231	125.23%
Emergency department	33,897	77,421	128.40%
Unknown	125,169	322,249	157.45%
Mean cost of OHIP billings ($)	116.11	150.03	29.22%
Mean age of patients cared for	78.39	76.88	-1.93%
Total visit count by setting			
Office (community-based)	51,716	46,096	-10.87%
Virtual [a]	119	49,281	-41,312.61%
Home	3,416	3,145	-7.93%
Long-term care home	4,940	5,855	18.52%
Hospital (inpatient care)	46,187	79,529	72.19%
Emergency department	176	361	105.11%
Unknown	1,868	4,063	117.51%
Mean percentage of billings by setting (%)	47.70%	24.48%	-48.69%
Office (community-based)	0.11%	26.17%	23,741.33%
Virtual [a]	3.15%	1.67%	-47.00%
Home	4.56%	3.11%	-31.77%
Long-term care home	42.60%	42.23%	-0.87%
Hospital (inpatient care)	0.16%	0.19%	18.08%

	2011	2023	Percent change
Emergency department	1.72%	2.16%	25.22%
Unknown			
Count of consultations completed by the physician	12,535	20,001	59.56%
Count of referrals made to another physician	6,705	13,116	-95.62%
Care of the Elderly FPs			
Total cost of OHIP billings ($)	2,460,188	10,223,561	315.56%
Total cost of OHIP billings by location ($)			
Office (community-based)	613,819	3,396,188	453.29%
Virtual [a]	0	675,249	-
Home	10,200	403,994	3,860.61%
Long-term care home	964,560	2,097,120	117.42%
Hospital (inpatient care)	735,047	1,694,850	130.58%
Emergency department	15,853	81,735	415.58%
Unknown	136,560	1,874,425	1,272.60%
Mean cost of OHIP billings ($)	32.79	37.26	13.63%
Mean age of patients cared for	81.96	79.46	-3.05%
Total visit count by setting			
Office (community-based)	21,051	99,926	374.69%
Virtual [a]	0	32,044	.
Home	503	8,109	1,512.13%
Long-term care home	24,209	37,397	54.48%
Hospital (inpatient care)	22,130	42,572	92.37%
Emergency department	310	5,013	1,517.10%
Unknown	6,834	49,348	622.10%
Mean percentage of billings by setting (%)			
Office (community-based)	28.05%	36.41%	29.80%
Virtual [a]	0.00%	11.68%	-
Home	0.67%	2.96%	340.84%
Long-term care home	32.26%	13.63%	-57.76%
Hospital (inpatient care)	29.49%	15.51%	-47.40%
Emergency department	0.41%	1.83%	342.19%
Unknown	9.11%	17.98%	97.46%
Count of consultations completed by the physician	1,766	5,982	238.73%
Count of referrals made to another physician	16,701	89,143	433.76%

FPs=Family physicians; OHIP=Ontario Health Insurance Plan

[a] Virtual visits include both telephone and video encounters

Changes in OHIP billings across practice settings

Figure 4 illustrates trends in OHIP billings among geriatric-focused physicians across various health care settings. **Figure 4A**, focused on geriatricians, reveals a sustained increase in expenditures for hospital encounters and office visits before the COVID-19 pandemic, with office-based care consistently representing the highest cost category until 2019. A marked inflection occurs in 2020, where office visit costs decline sharply, coinciding with a dramatic

surge in virtual encounters, which peak in 2021. In contrast, costs associated with home visits, long-term care home, and emergency department encounters remain relatively stable and minimal throughout the study period.

Billing trends for geriatric psychiatry services (**Figure 4B**) demonstrate a strong concentration in hospital and office-based care. Both categories exhibit steady growth until 2019, after which office visit costs decline sharply while hospital encounters continue their upward trajectory. Virtual visit costs increased dramatically in 2020, peaking at over $12 million in 2021 before receding in subsequent years. Other care settings, including home, long-term care home, and emergency department, contribute minimally to overall costs.

Figure 4c presents the trends for COE FPs' visit costs, highlighting a more balanced distribution across service locations. Office visits consistently account for the largest share of expenditures, with gradual increases observed over time. Virtual visits exhibited moderate growth during the pandemic years. Unlike geriatricians and geriatric psychiatrists, there is greater diversification in terms of service locations for billings.

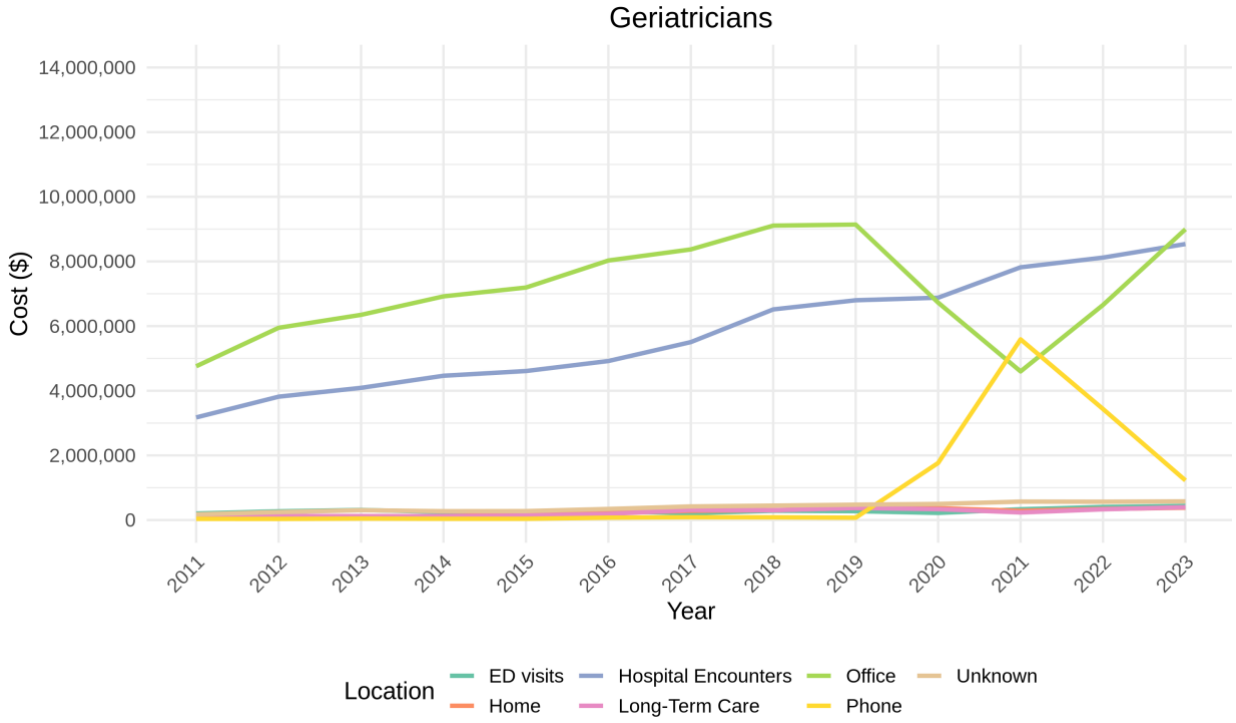

Figure 4A. Changes in OHIP billings among geriatricians by location, 2011 to 2023

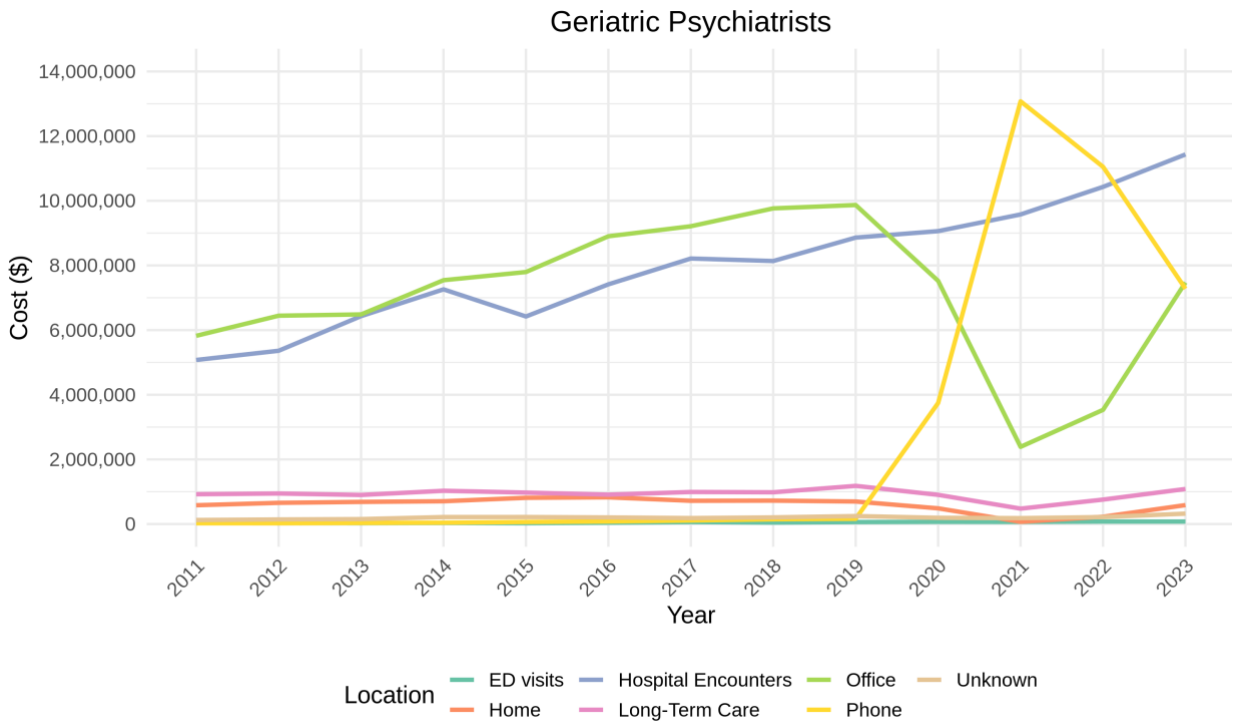

Figure 4B. Changes in OHIP billings among geriatric psychiatrists by location, 2011 to 2023

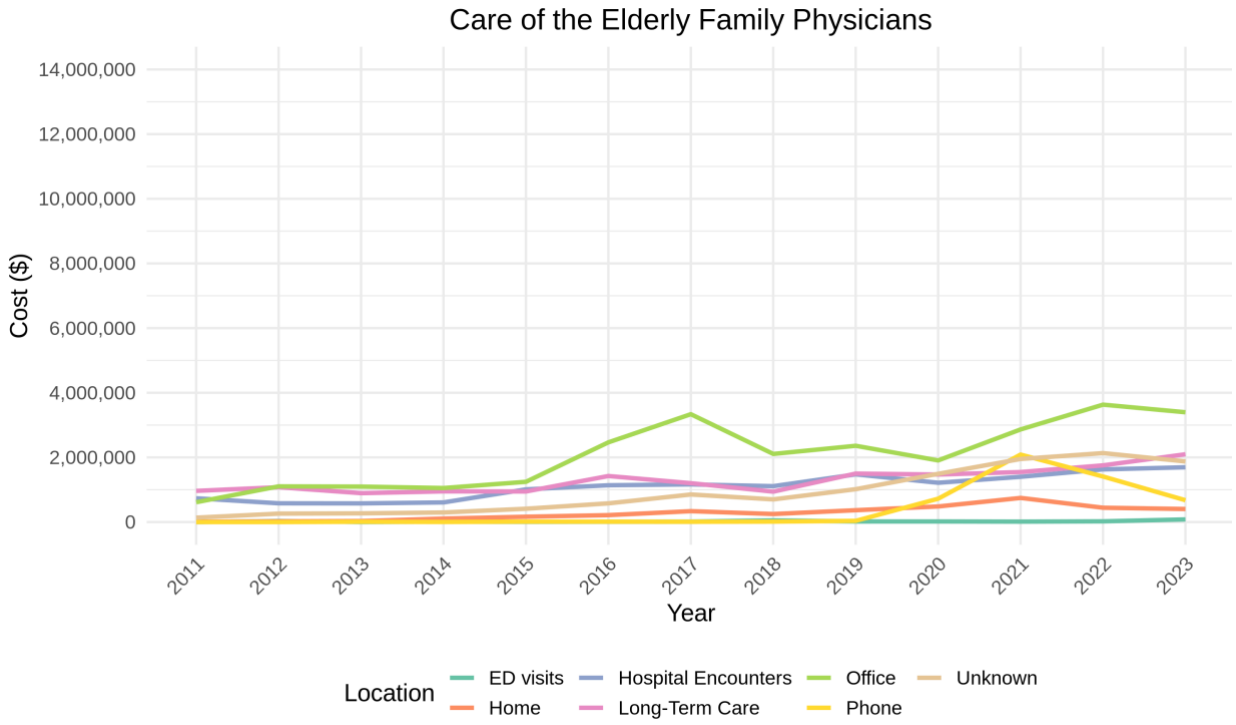

Figure 4C. Changes in OHIP billings among COE FPs by location, 2011 to 2023

Geriatric-focused Physician Clinical Services

Geriatricians

Billing patterns for geriatricians show an expansion in service complexity and virtual care adoption (**Table 6**). Comprehensive geriatric consultations (C775) declined in frequency, but extended consultations (A770 and C770) surged, with the proportion of physicians billing these codes rising to over 90% by 2023. Administrative tasks for long-term care forms (K038) and home care applications (K070) remained common. Virtual care codes (K083, K301, E078) emerged strongly after 2020, with over 74% of geriatricians billing for virtual visits by 2023. Case conference participation also grew substantially.

Geriatric psychiatrists

For geriatric psychiatrists, traditional psychiatric assessments (A193) and consultations (A190, A195) remained foundational, but the uptake of geriatric-specific consult codes (A795, C795) increased (**Table 6**). Virtual care adoption was notable, with codes for virtual visits (K083) growing in use. Administrative billing for Ministry of Transportation forms and long-term care applications sustained. Case conference codes (K121) and consultative interviews with caregivers (A191, A192) grew.

Care of the Elderly FPs

COE FPs demonstrated the most dramatic diversification in billing activity (**Table 6**). Focused practice assessments (A967) remained common, but neurocognitive assessments (K032) and geriatric home visit premiums (B986, B988) surged. Virtual care codes (K077) appeared prominently by 2023. Administrative tasks such as long-term care forms (K038) and transportation forms (K035) were frequent. Case conference participation (K703) jumped from near-zero in 2011 to over 60% of FPs billing this code by 2023.

Table 6. Geriatric-focused physician OHIP fee code billings, 2011 and 2023

	2011	2023	Percent change
Geriatricians			
Assessments			
Complex medical specific re-assessment (A071)			
Count of physicians who billed ≥1, n (%)	72 (72.0%)	174 (88.8%)	141.67%
Mean (SD)	140.86 (213.9)	94.78 (126.0)	
Median (IQR)	66 (186.5)	48 (102)	
Medical specific assessment (A073)			
Count of physicians who billed ≥1, n (%)	84 (84.0%)	169 (86.2%)	101.19%
Mean (SD)	127.13 (206.8)	126.36 (164.0)	
Median (IQR)	35.5 (154.5)	79 (151)	
GP-specific neurocognitive assessment (K032)			
Count of physicians who billed ≥1, n (%)	67 (67.0%)	163 (83.2%)	143.28%
Mean (SD)	121.07 (175.1)	89.66 (111.2)	
Median (IQR)	60 (156)	54 (122)	
Consultations			
General consultation (A075)			
Count of physicians who billed ≥1, n (%)	94	135	43.62%

	2011	2023	Percent change
Mean (SD)	112.87 (267.33)	26.53 (47.84)	
Median (IQR)	30 (146)	9 (26)	
Consultation (C075)			
Count of physicians who billed ≥1, n (%)	83	85	2.41%
Mean (SD)	61.92 (78.30)	19.78 (33.67)	
Median (IQR)	32 (77)	9 (20)	
Comprehensive geriatric consult (C775)			
Count of physicians who billed ≥1, n (%)	61 (61.0%)	49 (25.0%)	-19.67%
Mean (SD)	30.62 (42.2)	14.71 (26.5)	
Median (IQR)	16 (39)	4 (11)	
Extended comprehensive geriatric consultation (A770)			
Count of physicians who billed ≥1, n (%)	76 (76.0%)	184 (93.9%)	142.11%
Mean (SD)	69.92 (87.4)	148.80 (117.6)	
Median (IQR)	34 (76.5)	125 (156)	
Extended comprehensive geriatric consultation (C770)			
Count of physicians who billed ≥1, n (%)	46 (46.0%)	92 (46.9%)	100.00%
Mean (SD)	42.72 (55.5)	69.87 (70.0)	
Median (IQR)	20 (55)	54.5 (92.5)	
Home visits			
Home visit specialist visit premium (B986)			
Count of physicians who billed ≥1, n (%)	-	51 (26.0%)	-
Mean (SD)	-	48.22 (151.6)	
Median (IQR)	-	12 (23)	
Administrative tasks			
Completion of long-term care health report form (K038)			
Count of physicians who billed ≥1, n (%)	47 (47.0%)	85 (43.4%)	70.59%
Mean (SD)	8.77 (9.4)	5.88 (6.2)	
Median (IQR)	6 (10)	3 (8)	
Home care application (K070)			
Count of physicians who billed ≥1, n (%)	70 (70.0%)	136 (69.4%)	94.29%
Mean (SD)	28.30 (32.6)	32.72 (44.5)	
Median (IQR)	19.5 (29)	21 (32.5)	
Virtual care			
Specialist consultation or visit by telephone or video (K083)			
Count of physicians who billed ≥1, n (%)	-	146 (74.5%)	-
Mean (SD)	-	41.75 (77.8)	
Median (IQR)	-	16 (33)	
Geriatric telephone support (K077)			
Count of physicians who billed ≥1, n (%)	-	147 (75.0%)	-
Mean (SD)	-	27.28 (46.4)	
Median (IQR)	-	12 (27)	
Virtual care services (audio only) (K301)			
Count of physicians who billed ≥1, n (%)	-	164 (83.7%)	-
Mean (SD)	-	62.54 (143.2)	
Median (IQR)	-	18 (48)	
Chronic disease assessment premium for virtual care (E078)			
Count of physicians who billed ≥1, n (%)	84 (84.0%)	181 (92.3%)	115.48%
Mean (SD)	251.26 (314.5)	164.33 (221.6)	
Median (IQR)	157 (292.5)	105 (175)	

	2011	2023	Percent change
Case conferences			
Hospital inpatient case conference (K121)			
Count of physicians who billed ≥1, n (%)	38 (38.0%)	108 (55.1%)	184.21
Mean (SD)	41.66 (50.4)	82.01 (114.5)	
Median (IQR)	24 (66)	35 (103.5)	
Interviews with relatives or a person (K002)			
Count of physicians who billed ≥1, n (%)	85 (85.0%)	167 (85.2%)	96.47%
Mean (SD)	123.69 (192.6)	125.85 (155.6)	
Median (IQR)	40 (138)	67 (173)	
Geriatric psychiatrists			
Assessments			
Specific assessment - psychiatry (A193)			
Count of physicians who billed ≥1, n (%)	18 (16.2%)	20 (8.7%)	11.11%
Mean (SD)	9.78 (8.69)	12.15 (24.87)	
Median (IQR)	7.5 (13)	2 (4.5)	
GP-specific neurocognitive assessment (K032)			
Count of physicians who billed ≥1, n (%)	9 (8.1%)	31 (13.5%)	244.44%
Mean (SD)	11.33 (8.77)	18.61 (22.08)	
Median (IQR)	8 (12)	11 (34)	
Consultations			
Special psychiatric consultation (A190)			
Count of physicians who billed ≥1, n (%)	27 (24.3%)	45 (19.7%)	66.67%
Mean (SD)	10.44 (10.14)	10.42 (15.07)	
Median (IQR)	7 (10)	5 (12)	
Consult - psychiatry (A195)			
Count of physicians who billed ≥1, n (%)	91 (82.0%)	131 (57.2%)	43.96%
Mean (SD)	36.89 (45.63)	18.56 (29.97)	
Median (IQR)	22 (45)	7 (17)	
Geriatric psychiatry consultation (A795)			
Count of physicians who billed ≥1, n (%)	59 (53.2%)	48 (21.0%)	-18.64%
Mean (SD)	32.22 (35.50)	15.54 (28.15)	
Median (IQR)	15 (42)	5 (13.5)	
Geriatric psychiatry consultation (C795)			
Count of physicians who billed ≥1, n (%)	20 (18.0%)	13 (5.7%)	-35.00%
Mean (SD)	5.50 (9.23)	9.15 (10.47)	
Median (IQR)	2 (4)	5 (13)	
Consultation (C895)			
Count of physicians who billed ≥1, n (%)	60 (54.1%)	90 (39.3%)	50.00%
Mean (SD)	33.42 (59.57)	36.23 (55.41)	
Median (IQR)	6.5 (39.5)	9.5 (44)	
Administrative tasks			
Ministry of Transportation Form (K035)			
Count of physicians who billed ≥1, n (%)	34 (30.6%)	58 (25.3%)	70.59%
Mean (SD)	6.41 (6.00)	5.31 (5.02)	
Median (IQR)	4 (8)	3 (7)	
Long term care application form (K038)			
Count of physicians who billed ≥1, n (%)	11 (9.9%)	25 (10.9%)	127.27%
Mean (SD)	8.36 (9.93)	4.04 (4.78)	
Median (IQR)	3 (9)	3 (4)	
Case conferences			
Hospital inpatient case conference (K121)			

	2011	2023	Percent change
Count of physicians who billed ≥1, n (%)	13 (11.7%)	55 (24.0%)	323.08%
Mean (SD)	14.00 (26.47)	30.67 (57.17)	
Median (IQR)	4 (10)	9 (30)	
Consultative interview with caregiver(s) of a patient at least 65 years of age, or a patient less than 65 years of age with a diagnosis of dementia (A191)			
Count of physicians who billed ≥1, n (%)	-	124 (54.1%)	-
Mean (SD)	-	49.56 (56.75)	
Median (IQR)	-	27.5 (64.5)	
Consultative interview with patient at least 65 years of age, or a patient less than 65 years of age with a diagnosis of dementia (A192)			-
Count of physicians who billed ≥1, n (%)	-	125 (54.6%)	
Mean (SD)	-	61.70 (66.28)	
Median (IQR)	-	36 (77)	
Care of the Elderly FPs			
Assessments			
Focused practice assessment - care of the elderly (A967)			
Count of physicians who billed ≥1, n (%)	30 (96.8%)	70 (41.4%)	133.33%
Mean (SD)	185.97 (239.2)	134.34 (211.1)	
Median (IQR)	47.5 (243)	32.50 (165)	
GP-specific neurocognitive assessment (K032)			
Count of physicians who billed ≥1, n (%)	16 (51.6%)	92 (54.4%	114.00%
Mean (SD)	17.25 (16.6)	33.52 (75.6)	
Median (IQR)	15 (18)	8 (24.5)	
Home visits			
Geriatric home visit special visit premium - travel premiums (B986)			
Count of physicians who billed ≥1, n (%)	-	36 (21.3%)	-
Mean (SD)	-	93.81 (114.90)	
Median (IQR)	-	31 (152.5)	
Geriatric home visit special visit premium - first person seen - weekdays, evenings, holidays (B988)			
Count of physicians who billed ≥1, n (%)	-	35 (20.7%)	-
Mean (SD)	-	97.31 (116.39)	
Median (IQR)	-	40 (159)	
Virtual care			
Geriatric telephone support (K077)			
Count of physicians who billed ≥1, n (%)	-	40 (23.7%)	-
Mean (SD)	-	41.20 (43.42)	
Median (IQR)	-	21.5 (55)	
Administrative tasks			
Ministry of Transportation Form (K035)			
Count of physicians who billed ≥1, n (%)	17 (54.8%)	87 (51.5%)	411.76%
Mean (SD)	11.35 (13.74)	6.23 (8.26)	
Median (IQR)	5 (10)	3 (6)	
Long term care application form (K038)			
Count of physicians who billed ≥1, n (%)	22 (71.0%)	128 (75.7%)	481.82%
Mean (SD)	5.86 (9.07)	7.84 (10.01)	
Median (IQR)	2.5 (5)	5 (8)	

	2011	2023	Percent change
Case conferences			
Geriatric out-patient case conference (K703)			
Count of physicians who billed ≥1, n (%)	1-5*	104 (61.5%)	1,980 to 10,300%
Mean (SD)	1-5*	24.03 (60.33)	
Median (IQR)	1-5*	1 (5.5)	

FPs=family physicians

Projected Demand for Geriatric-focused Physicians

Based on current utilization within each HPG, **Table 7** displays how many geriatric-focused physicians are needed in 2048. The projected need for geriatricians increases from 174.28 FTEs in 2023 to 490.43 FTEs. Geriatric psychiatry forecasting reveals a more modest trajectory compared to geriatricians, whereby the workforce begins with 175.65 FTE geriatricians and is projected to need 340.06. Lastly, the need for FTE COE FPs is projected to grow from 126.12 to 313.78. In all groups, there is steady growth in the number of FTE physicians needed per 1,000 older adults based on health service utilization trends.

Table 7. Projected demand for geriatric-focused physicians by HPG and patient age group, 2023 and 2048

Health Profile Group	2023 Population count	2023 Number of FTE physicians	2023 Number of FTE physicians per 1,000 older adults	2048 Population count	2048 Number of FTE physicians	2048 Number of FTE physicians per 1,000 older adults
Geriatricians						
Older adults aged 65-79						
End-of-life	18,051	4.008	.004008	23,916	5.584	.00558
Near end-of-life	19,793	3.578	.003578	26,299	4.988	.00499
High disease burden	220,497	29.320	.029320	283,683	40.377	.04038
Low disease burden	1,908,688	28.372	.028372	2,338,247	38.727	.03873
Older adults aged 80+						
End-of-life	29,262	12.780	.012780	122,423	51.897	.05190
Near end-of-life	30,691	10.307	.010307	125,403	42.505	.04251
High disease burden	146,424	49.496	.049496	502,729	177.649	.17765
Low disease burden	508,204	36.414	.036414	1,589,736	128.703	.12870
Total Number of FTE geriatricians		174.276			490.429	
Geriatric psychiatrists						
Older adults aged 65-79						
End-of-life	18,051	4.535	.004535	23,916	5.964	.005964
Near end-of-life	19,793	4.038	.004038	26,299	5.414	.005414
High disease burden	220,497	58.124	.058124	283,683	75.538	.075538
Low disease burden	1,908,688	51.330	.051330	2,338,247	64.829	.064829
Older adults aged 80+						
End-of-life	29,262	5.998	.005998	122,423	22.814	.022814
Near end-of-life	30,691	4.827	.004827	125,403	17.852	.017852
High disease burden	146,424	28.784	.028784	502,729	91.795	.091795
Low disease burden	508,204	18.019	.018019	1,589,736	55.855	.055855
Total Number of FTE geriatric psychiatrists		175.654			340.062	

Care of the Elderly FPs						
Older adults aged 65-79						
End-of-life	18,051	2.683	.002683	23,916	3.578	.003578
Near end-of-life	19,793	1.829	.001829	26,299	2.478	.002478
High disease burden	220,497	19.216	.019216	283,683	25.336	.025336
Low disease burden	1,908,688	46.034	.046034	2,338,247	57.600	.057600
Older adults aged 80+						
End-of-life	29,262	6.886	.006886	122,423	34.023	.034023
Near end-of-life	30,691	5.479	.005479	125,403	25.361	.025361
High disease burden	146,424	23.756	.023756	502,729	93.809	.093809
Low disease burden	508,204	20.237	.020237	1,589,736	71.594	.071594
Total Number of FTE Care of the Elderly FPs		126.121			313.779	

FPs=family physicians; FTE=full-time equivalent

Figure 5 further illustrates the increased needs for FTE physicians to care for the increasing number of older adults within each HPG over the next 25 years. Given that most older adults are classified within the High Disease Burden or Low Disease Burden groups, the FTEs needed are greatest to care for patients within these groups.

How to Interpret Findings in Figure 5

Figure 5 plots changes in the number of FTE physicians needed to care for older adults assigned to each HPG over time. Change in the older population size by HPG is provided for reference.

Example: To care for older adults aged 65-79 over the next 25 years, increasingly more geriatrician, geriatric psychiatry, and COE FP FTEs are needed to care for patients within the High Disease Burden and Low Disease Burden HPGs. While there is growth in the number of older adults assigned to the End-of-Life and Near End-of-Life HPGs, these groups are not driving demand for FTEs needed to the same extent.

Example: Growth among older adults aged 80+ over the next 25 years is increasingly driving greater demands for geriatric-focused FTEs across all HPGs (compared to older adults aged 65-79).

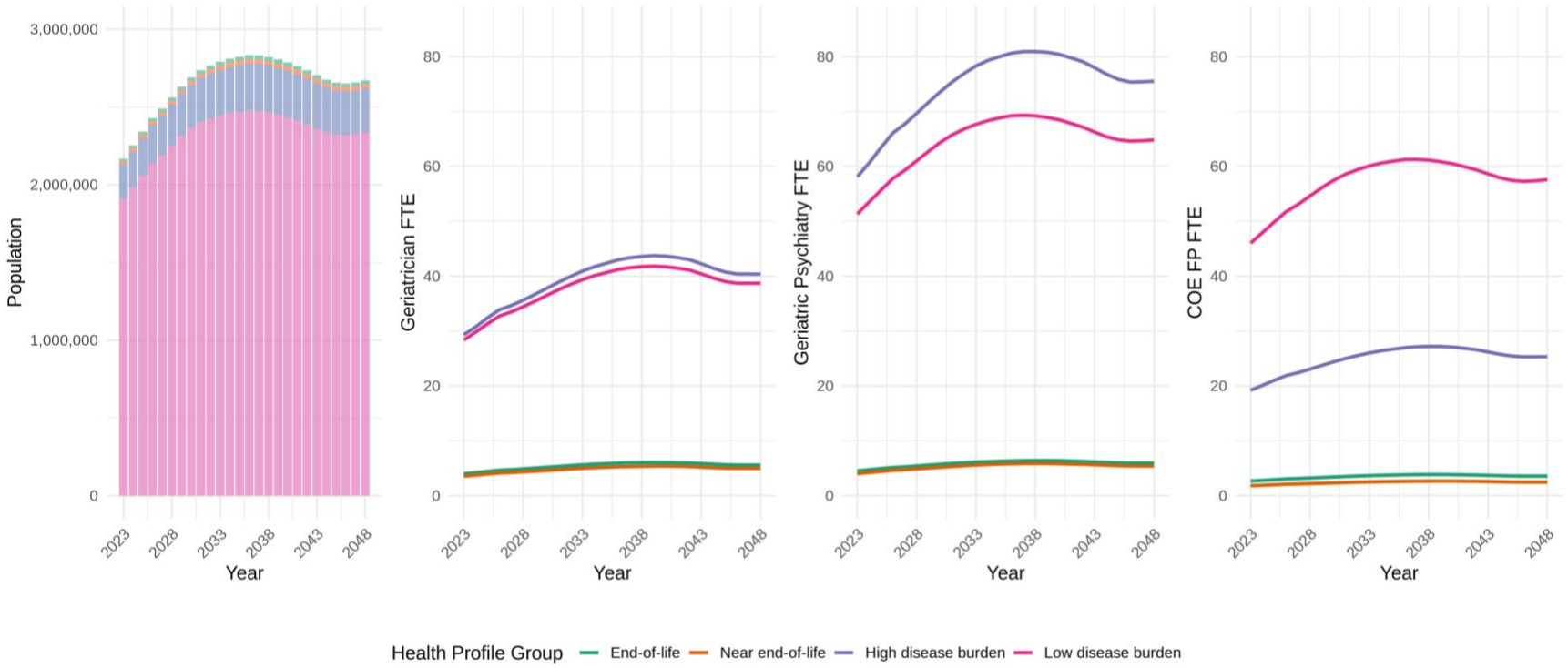

Figure 5A. Projected population size (aged 65-79) and geriatric-focused physician FTEs by HPG, 2023 to 2048

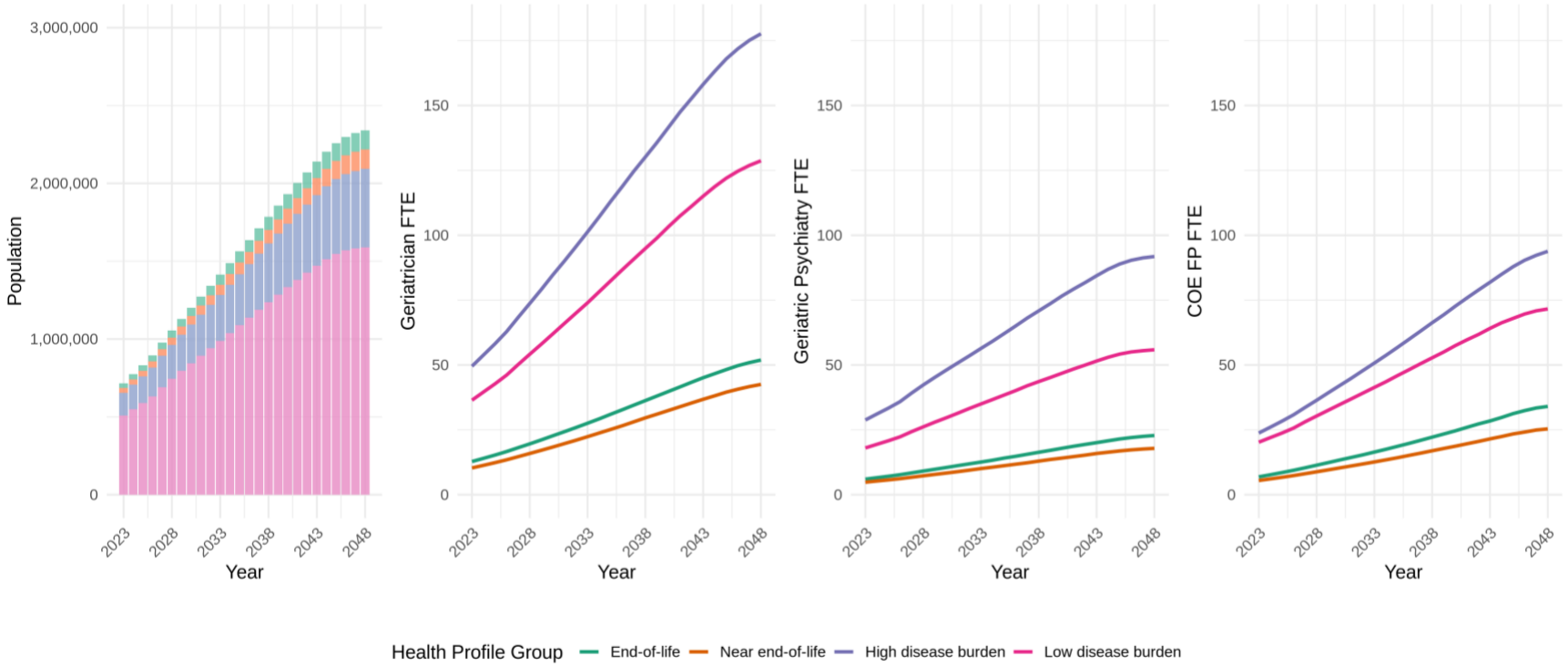

Figure 5B. Projected population size (aged 80+) and geriatric-focused physician FTEs by HPG, 2023 to 2048

Full-time Equivalents of Geriatric-focused Physicians

Figure 6 displays changes in the average FTE values of geriatric-focused physicians between 2012 and 2023. Geriatricians maintained relatively stable FTEs over time, generally between 0.65 and 0.83, with slight declines in the workforce's older age brackets. Geriatric psychiatrists showed more variability, with mid-career physicians (aged 40-59) consistently delivering the highest service volumes, while younger and older sub-groups often fell below 0.65 FTE. COE FPs exhibited the highest FTE values overall, frequently approaching or exceeding 0.90, and their visit counts were substantially higher than the other groups. Recent years reported greater FTE declines among COE FPs aged 25-34 and 55-64.

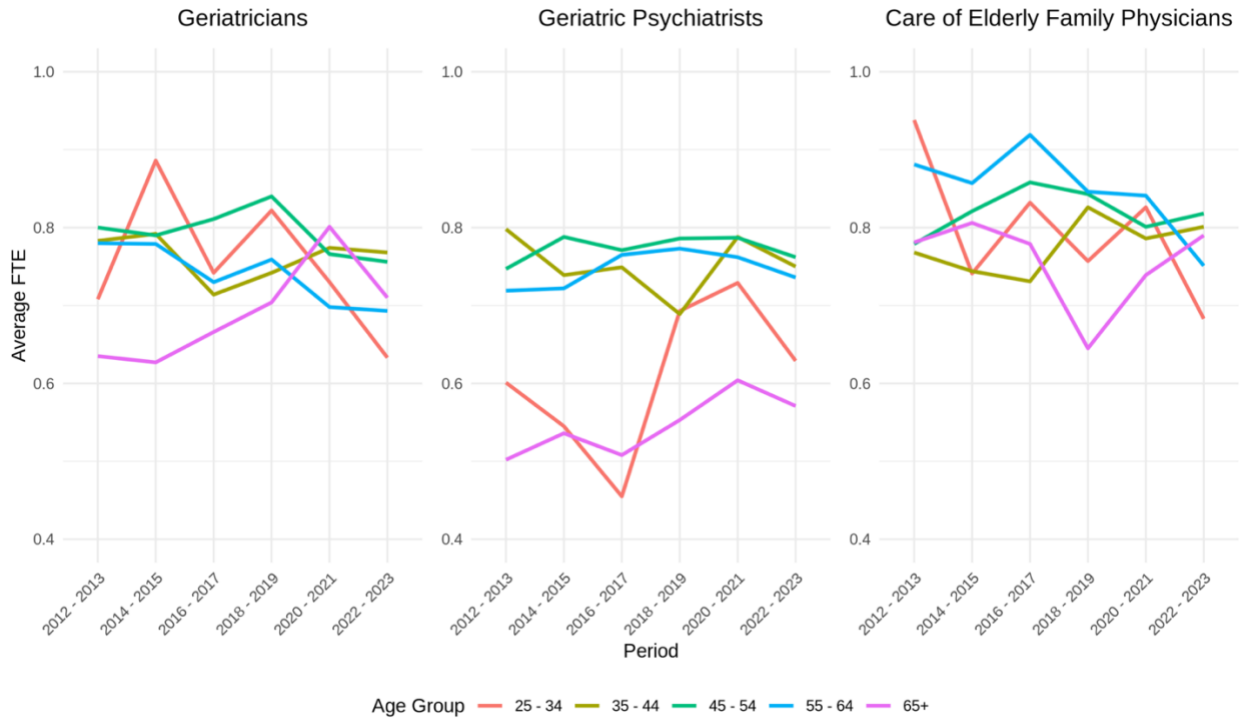

Figure 6. Mean FTE of geriatric-focused physicians, 2012 to 2023

Table 8 demonstrates that the majority of geriatric-focused physicians fall within the mid-career age groups (35-44 and 45-54) in 2024, although many are practicing between ages 55-64. Over time, older geriatricians, geriatric psychiatrists, and COE FPs (aged 55-64 and 65+) are projected to contribute as the largest FTEs.

Table 8. Expected number of geriatric-focused physicians and FTEs by physician age group, 2024 and 2048

	2024		2048	
	Total number of physicians	Number of FTE physicians	Total number of physicians	Number of FTE physicians
Geriatricians				

Physician age group				
25-34	21.6320	13.8192	6.1890	3.6443
35-44	80.8399	61.7347	4.3636	3.3475
45-54	35.7345	25.8422	.9937	.7192
55-64	42.7564	32.1699	86.8616	65.6930
65+	19.9638	12.5041	20.0598	14.4458
Geriatric psychiatrists				
Physician age group				
25-34	7.6174	3.4397	2.7260	1.1395
35-44	49.1063	35.2447	6.5592	4.6490
45-54	54.4921	39.4052	5.0467	3.6559
55-64	42.9642	28.4568	25.5436	16.9787
65+	30.4166	14.6400	12.6961	6.9076
Care of the Elderly FPs				
Physician age group				
25-34	31.957	19.8275	9.528	5.599
35-44	107.930	80.5852	21.261	15.791
45-54	65.700	51.5439	16.764	13.186
55-64	58.349	42.1780	292.601	210.023
65+	14.631	8.1476	94.552	52.431

FP=family physician; FTE=full time equivalent

Lastly, **Figure 7** demonstrates forecasted gaps between FTE supply and demand among geriatric-focused physicians. For geriatricians, demand rises sharply from approximately 200 FTEs in 2024 to nearly 500 by 2048, while supply slightly declines. This indicates a widening gap and a significant shortage over time. Geriatric psychiatrists also show a concerning pattern: demand grows steadily from roughly 200 to 350 FTEs, but supply declines from around 125 FTEs to less than 50 by 2048. In contrast, COE FPs exhibit a different trajectory. Supply peaks around 2036 at approximately 450 FTEs before declining to about 300 by 2048, while demand gradually increases from roughly 200 FTEs to nearly match demand by the end of the projection period.

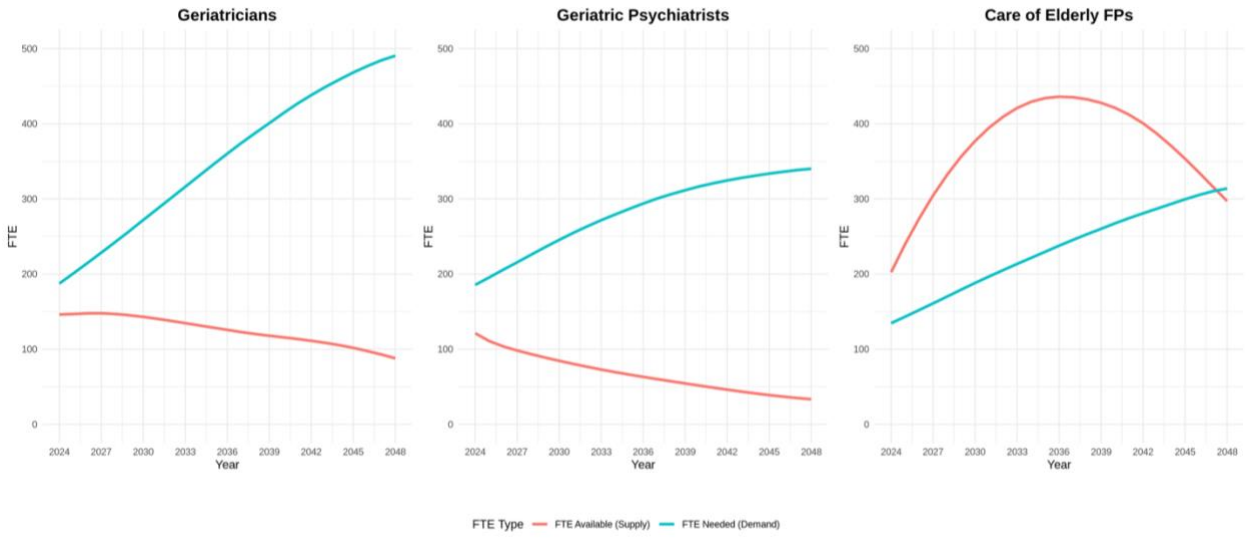

Figure 7. Comparing FTE supply and demand of geriatric-focused physicians, 2024 to 2048

Interpretation

Summary of Findings

Ontario's older adult population grew substantially from 2011 to 2023, and those classified in HPGs with the greatest needs (Near End-of-Life and End-of-Life) increased. Most geriatricians and COE FPs cared for older patients within all HPGs. Geriatric psychiatrists tended to care for patients with lower health needs (assigned to the High Disease Burden and Low Disease Burden HPGs). While there was some expansion in the geriatric-focused physician workforce over time, this increase did not keep pace with population growth.

Service utilization trends reveal significant changes in care delivery models over time. Between 2011 and 2023, total OHIP billings more than doubled for geriatricians (+142%) and geriatric psychiatrists (+124%), and quadrupled for COE FPs (+316%). Virtual care surged across all groups, particularly since the COVID-19 pandemic (2020). Hospital-based care remains the largest cost driver, particularly among geriatricians and geriatric psychiatrists, but office-based visits also grew in all physician groups.

Future projections raise concerns about the sustainability of the geriatric-focused physician workforce. Based on older adults' current health service utilization, the demand for geriatricians is expected to rise by nearly threefold (+181%), almost double for geriatric psychiatrists (+94%), and increase by 149% for COE FPs by 2048. Retirement rates remain high for all physician groups, and recruitment appears insufficient to offset attrition. FTE analyses showed that mid-career physicians carry the heaviest workloads, while younger cohorts contribute smaller FTEs, signaling potential service gaps as older and middle-aged physicians retire. These observed declines in physician FTE contributions have been demonstrated in other studies across physician age groups,[23] although patterns vary by specialty[24,25] and career stage.[26,27] Without targeted strategies to attract trainees and retain experienced clinicians, Ontario risks exacerbating shortages in the already strained geriatric-focused workforce.

Implications for Policy and Practice

Our findings underscore the urgent need for policy interventions to strengthen and incentivize geriatric-focused training and practice, and to ensure equitable access to specialized geriatric services for a rapidly aging population. The anticipated decline in geriatric-focused physician supply, contrasted with growing demands among older adults, poses significant risks to system capacity. Our conservative estimates highlight the need for targeted health human resource strategies, including expanding and incentivizing postgraduate geriatrics training, removing barriers to establish focused practices, and supporting retention through flexible work arrangements and phased retirement options.

Notably, we identified that long-term care currently represents a small share of geriatricians' billings and visits, despite increasing resident complexity and significant provincial investments in new long-term care beds and specialized units. At the same time, the majority (and increasing share) of geriatrician practice occurs in inpatient settings. Emerging evidence that

community-based geriatric services are more cost-effective than inpatient care[28] highlights the need for policy levers (e.g., payment reform, alternative funding models) to better support upstream geriatric services integrated within the community. Without such realignment, investments in provider capacity risk reinforcing reactive, hospital-centred care rather than improving continuity, prevention, and system sustainability.

Policymakers should also prioritize integrated care models that leverage interdisciplinary teams working together effectively in primary care and outpatient settings.[29] Evidence on optimal models of shared community care for older adults is needed to inform greater involvement of primary care and geriatric specialists, including both physicians and non-physicians. Investments in telehealth infrastructure, home-based care programs, and collaborative case conferencing may help mitigate workforce constraints and improve continuity of care for older adults who currently face inequitable access to these resources. Finally, aligning physician workforce planning with population projections and needs-based health service planning will ensure modelling aligns with older adults' forecasted needs.

Strengths and Limitations

We leveraged detailed administrative data and applied data-driven approaches to comprehensively describe changes in geriatric-focused physicians' practice patterns and characteristics over time. Rather than examining simple headcounts of older adults and physicians, we estimated clinicians' FTE contributions based on older adults' health service utilization patterns, derived from the CIHI Population Grouper. This approach allowed us to characterize physician contributions based on actual clinical service activities and visit volume, rather than crude measures of workforce supply.

While the identification of geriatric psychiatrists and COE FPs utilized previously established methods, these approaches have not been validated and may misclassify or over-estimate the supply of physicians in both groups. Provider- and practice-level information in administrative data limited our investigation to physicians, but future studies could examine the roles of other interprofessional team members in SGS and SMH, including nurse practitioners. Our analysis focused largely on physician billing data which may not accurately reflect clinical practice, and does not capture non-clinical activities (e.g., teaching, scholarship, leadership activities).

Lastly, our projected estimates of supply and demand are conservative (i.e., they likely underestimate future deficits) due to several forecasting challenges. First, we could not account for trends among older adults immigrating to Ontario or for internationally trained physicians who may enter the workforce, given recent changes in immigration policies and patterns that cannot be reliably extrapolated. Second, although we observed that younger physicians contribute lower FTEs on average, we were unable to model how these practice patterns may evolve over time (e.g., whether a 27-year-old geriatrician practicing at 0.4 FTE will maintain this level of clinical activity over the next 25 years). Finally, we could not account for changes in the number of medical students entering geriatric-focused training programs, including unfilled residency positions that may result in fewer trained specialists.

Next Steps

In future work, we plan to examine how geriatric-focused physicians are distributed across the province at regional and sub-regional levels. This will involve mapping where physicians practice relative to where older adults live to better understand the geographic areas they serve and potential gaps in access. Such analyses may also help clarify the role of virtual care in extending geriatric specialist reach. In addition, we will explore rural/urban differences in service provision, given that few physicians identify rural locations as their primary practice site, and assess how patterns of specialist use among older adults vary geographically.

Conclusion

Ontario's older adult population continues to grow, driving increased demand for specialized geriatric care. While the supply of geriatric-focused physicians expanded between 2011 and 2023, it has not kept pace with population growth or the rising complexity of health needs among older adults. Health service utilization trends show diversification of care models and practice patterns, but persistent gaps remain for the oldest patients with the greatest health needs. Workforce projections signal worsening gaps between physician supply and older patient demand, compounded by high retirement rates and limited recruitment. Without targeted strategies to incentivize practice with older adults and integrate interdisciplinary care models, Ontario risks exacerbating shortages in geriatric physician resources. Addressing these challenges is critical to ensure equitable, high-quality care for a rapidly aging population.

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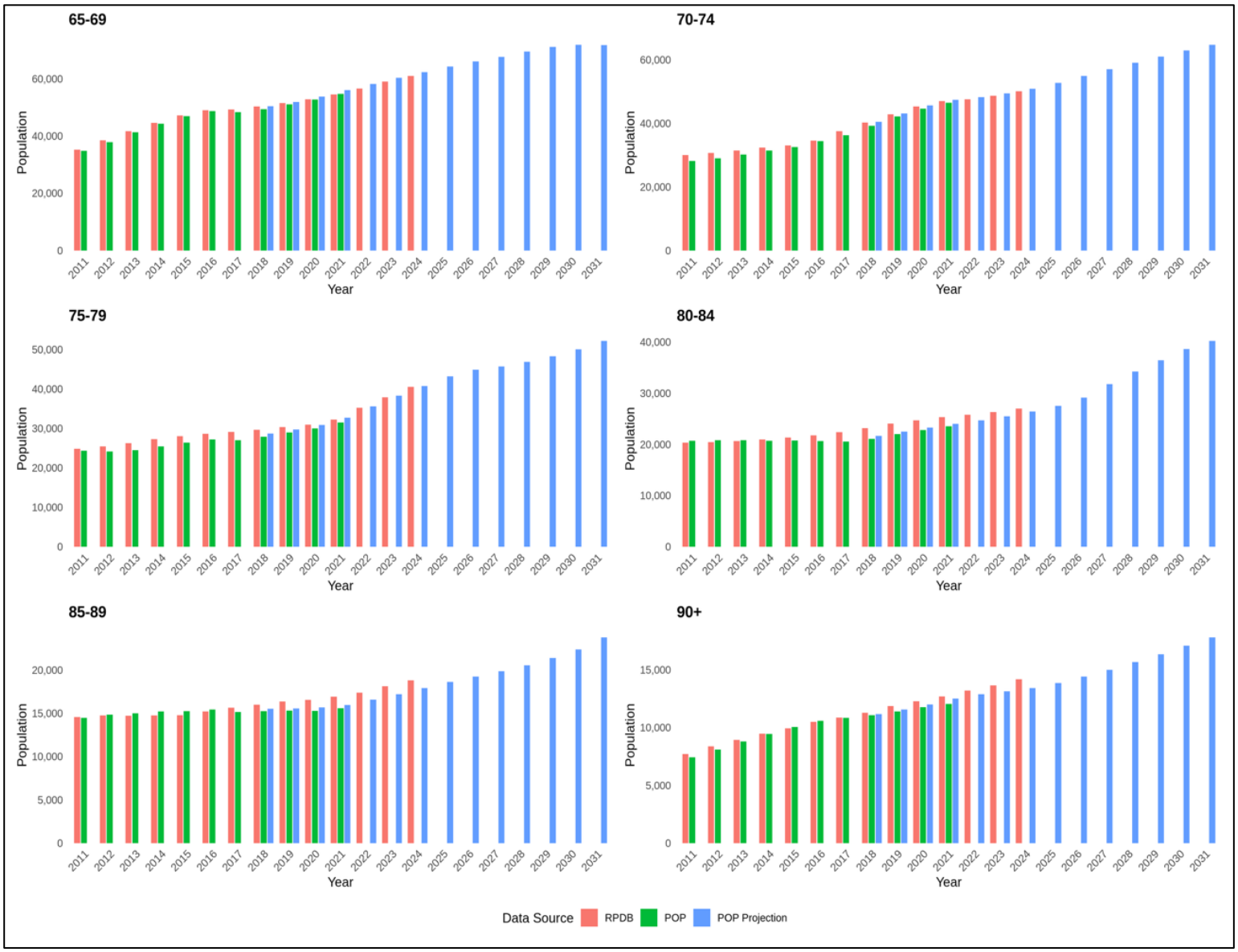
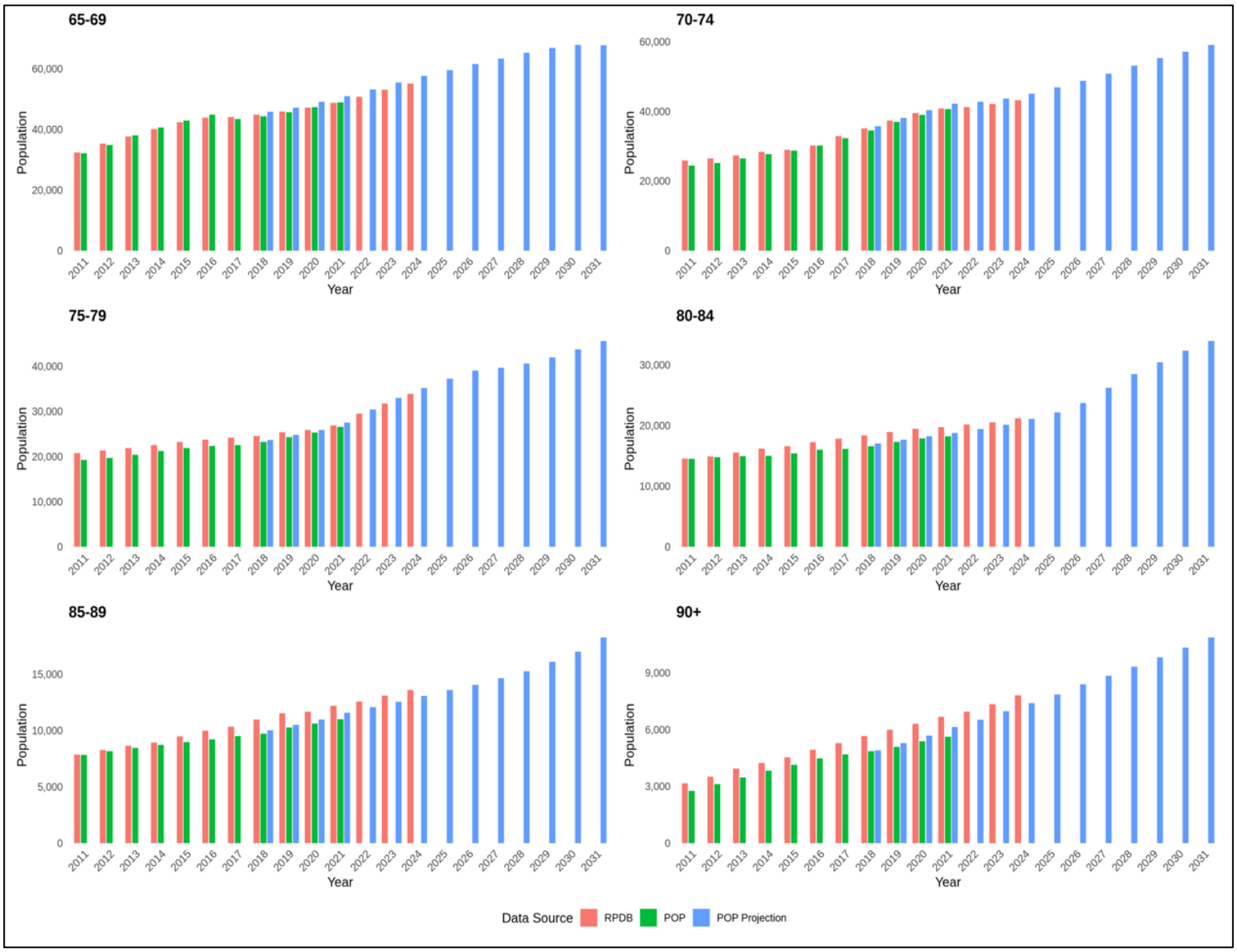
Supplementary Information

Appendix 1 – Comparing population projections, in five-year age increments and by sex, using three different data sources



Supplementary Figure 1. Population trends among female Ontarians by age group, 2011 to 2031



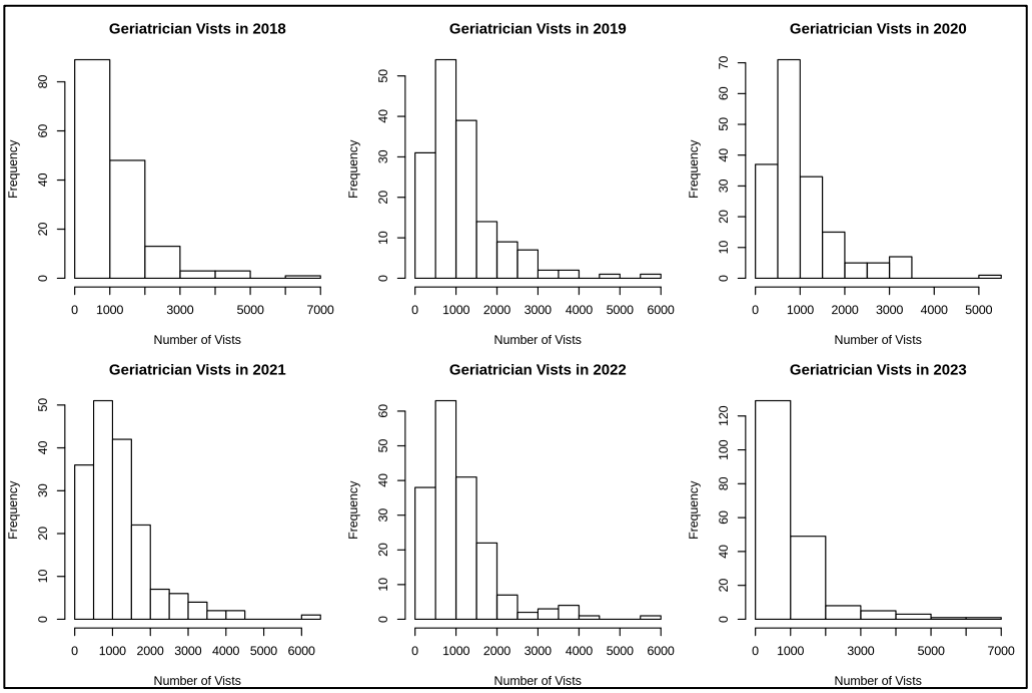
Supplementary Figure 2. Population trends among male Ontarians by age group, 2011 to 2031

Supplementary Table 1. Population projections at ICES versus Statistics Canada, 2024 to 2031

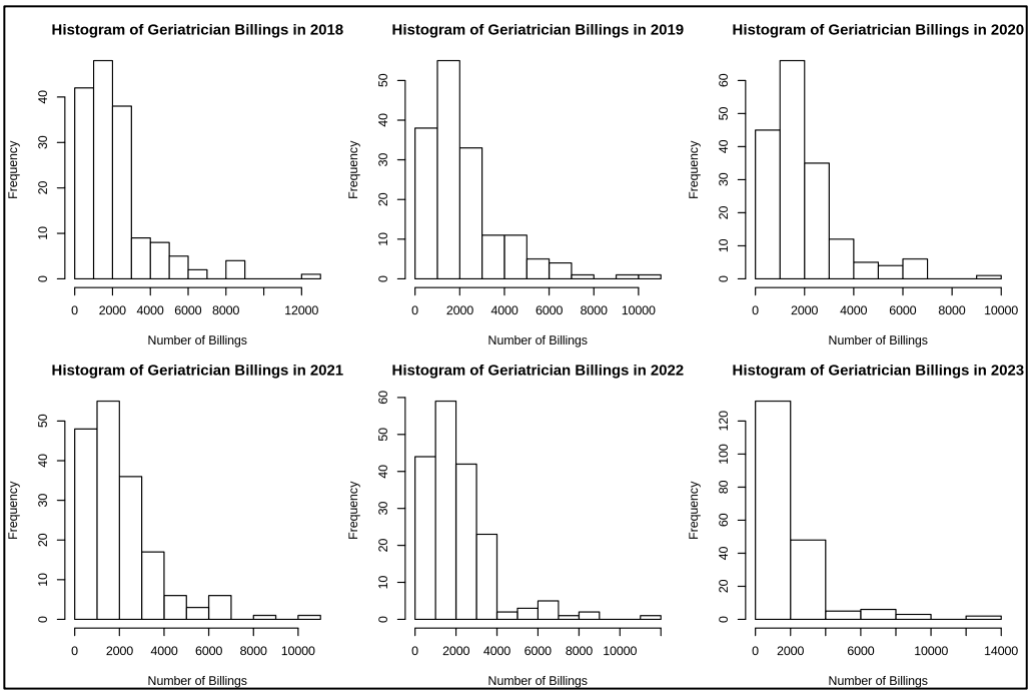
	2024	2025	2026	2027	2028	2029	2030	2031
ICES projections								
Males								
65-79 years	1,068,280	1,113,063	1,155,553	1,187,528	1,224,544	1,260,901	1,292,032	639,483
80+ years	322,982	350,140	379,876	418,898	455,014	489,285	522,807	555,488
Females								
65-79 years	1,183,618	1,228,718	1,271,408	1,300,718	1,335,261	1,368,167	1,396,763	1,417,960
80+ years	450,363	480,949	514,246	558,311	598,766	638,271	676,795	714,237
Statistics Canada projections								
Males								
65-79 years	1,088,880	1,130,675	1,171,069	1,201,926	1,236,650	1,271,585	1,302,207	1,325,373
80+ years	326,466	341,687	359,943	386,503	411,546	435,159	458,756	482,900
Females								
65-79 years	1,208,519	1,251,302	1,292,553	1,322,014	1,354,611	1,387,692	1,417,437	1,439,286
80+ years	461,760	478,469	498,630	528,674	557,413	584,704	612,106	639,483

Interpretation: Estimated population projections were similar across data sources, evidenced by overlapping bars for years when multiple data sources were available (i.e., 2018-2023) (**Supplementary Figures 1 and 2**). Further, the numeric projections by age group and sex align across the ICES and StatsCan projections (**Supplementary Table 1**). This asserts the suitability of ICES' POP data source for our 25-year projections.

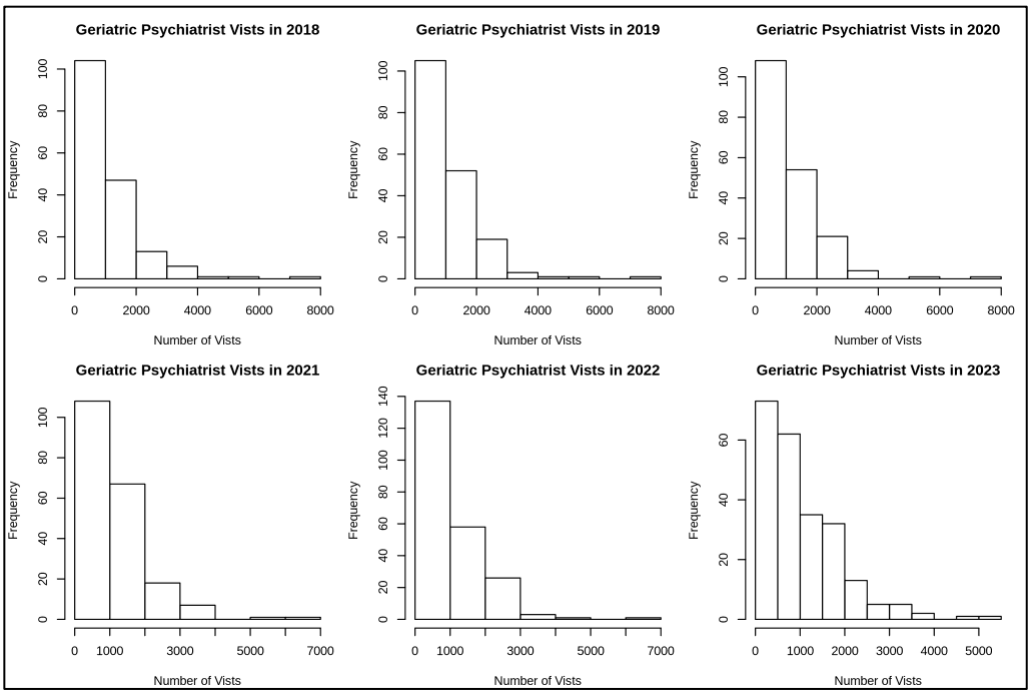
Appendix 2 – Distributions of physician visit counts and billings



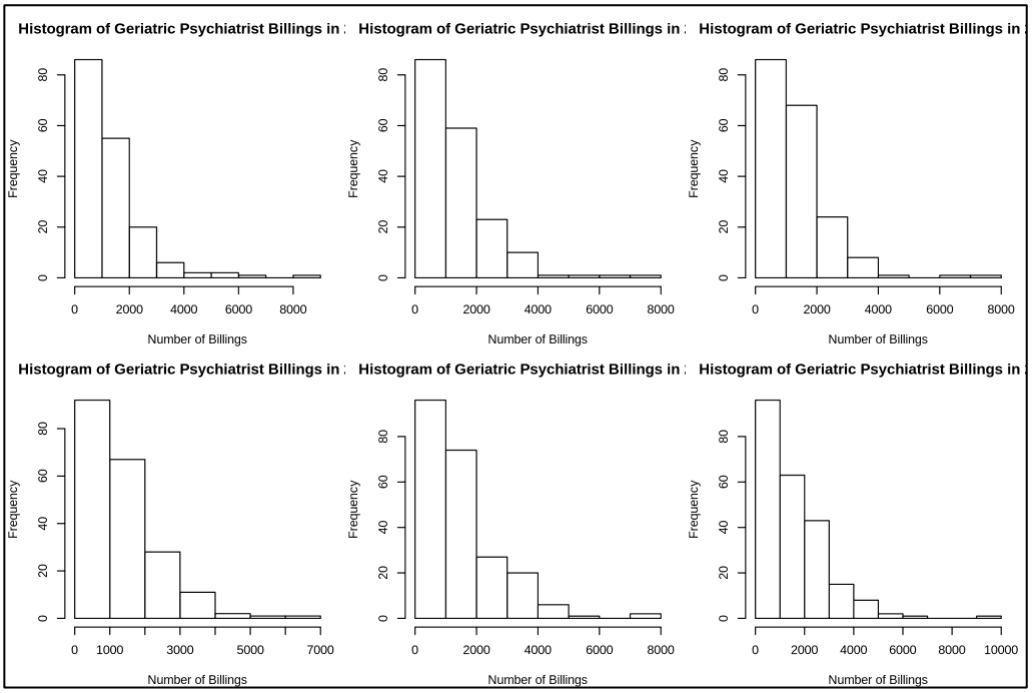
Supplementary Figure 3. Distribution of geriatrician visit count, 2018 to 2023



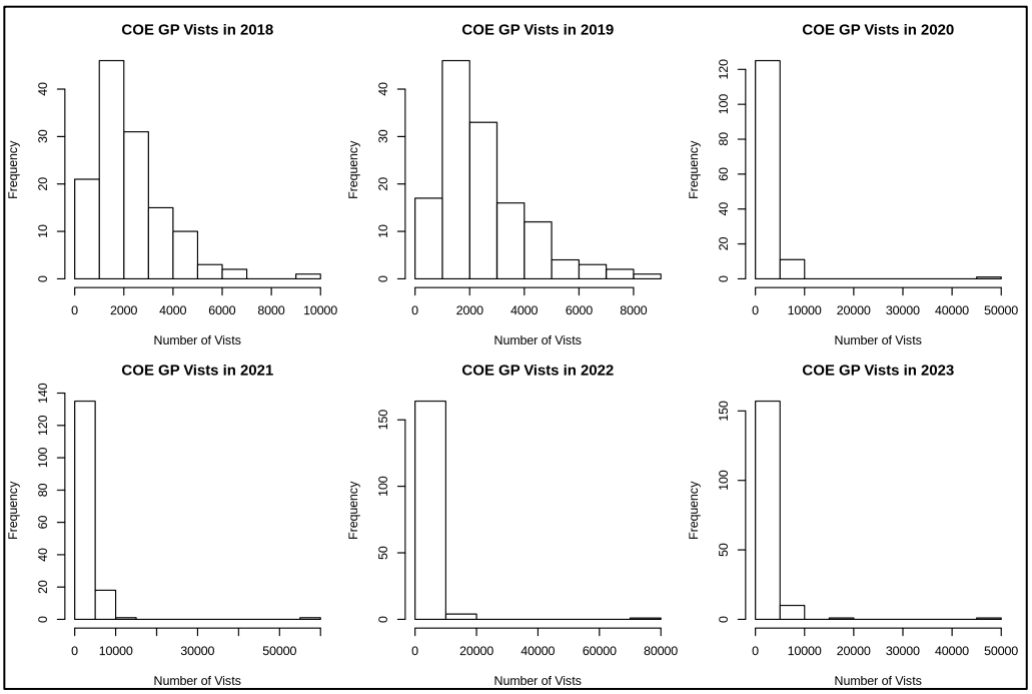
Supplementary Figure 4. Distribution of geriatrician billing count, 2018 to 2023



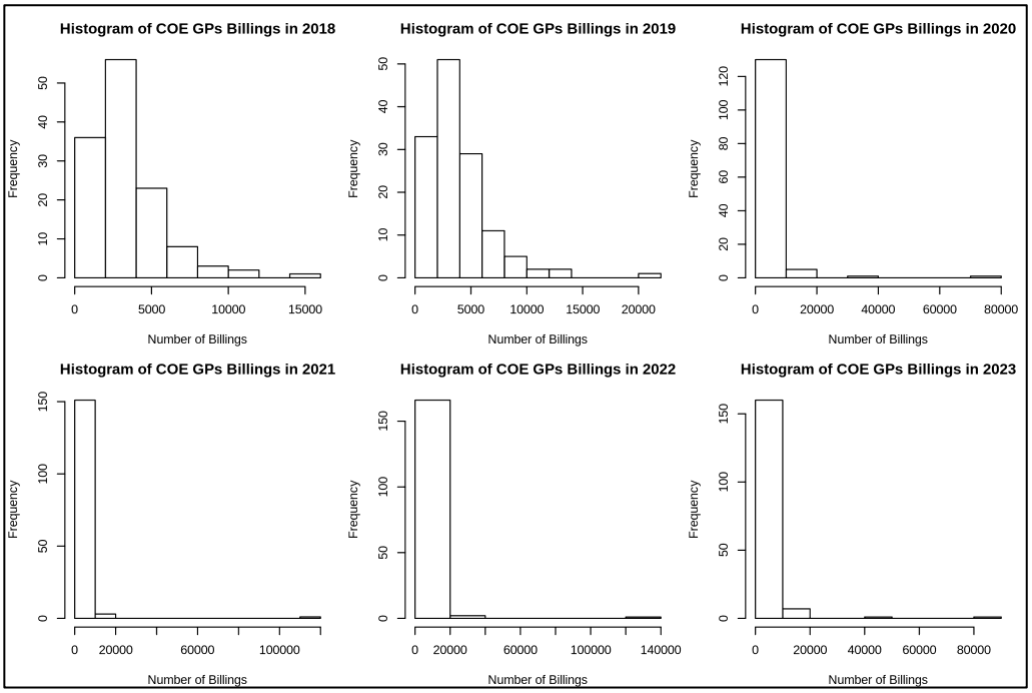
Supplementary Figure 5. Distribution of geriatric psychiatrist visit count, 2018 to 2023



Supplementary Figure 6. Distribution of geriatric psychiatrist billing count, 2018 to 2023



Supplementary Figure 7. Distribution of COE FP visit count, 2018 to 2023



Supplementary Figure 8. Distribution of COE FP billing count, 2018 to 2023