2024

AHS Specialist Physicians Workforce Forecast

FORECAST & REPORT

2023-24

July 2024

ALBERTA HEALTH SERVICES

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Executive Summary

Specialties

The 2023-24 Specialist Forecast anticipates that the Albertan specialist physician workforce could increase by 1,383[1] FTE over the next 10 years to maintain the same level of service and patient care access as today. That translates to a compound annual net new FTE increase rate of 2.7%.

During this same span, nearly 1,940 FTE will need to be replaced due to current specialist physicians departing[2] the workforce. AHS's 10-year total specialist physician FTE recruitment (new and replacement) is estimated at 3,325.

Compared to the previous year (2022-23):

1. The opening roster (i.e. existing physician) FTE has increased in Alberta by 3.9%.
2. The net new recruitment forecast has decreased by 3%[3].
3. The Replacement Recruitment rate dropped by 7.5%[4]. And Separation (i.e. retirement) rate has decreased by 1.7%.
4. It is anticipated 2.8% increase in physicians' migration to other provinces/countries.

Oncology (100%) and Psychiatry (45%) have the highest projected FTE growth rate over the next 10 years. To maintain the same level of service and to be able to respond to the province's growing needs in the next 10 years, Alberta may need to recruit 85 and 250 new FTE Oncologists and Psychiatrists. The OBGYN forecasted growth rate is the lowest.[5]

Most Alberta specialty groups will need to replace almost 40% of their current workforce throughout the next 10 years due to workforce retirement, migration, and gender shift. Although, the total projected replacement FTE volumes are small, Pediatric Surgery forecasts a replacement recruitment need of 16 FTE (57% of their current workforce) with Surgery projecting 287 (52%) and Oncology projecting 43 FTEs (51% of their current workforce) over the next 10 years.[6]

Slowing or limiting the number of physicians leaving Alberta for elsewhere and finding ways to extend the career-span of our existing physicians should be a top priority for AHS and our healthcare partners over the next years.

Total Recruitment includes the forecasted net new FTE (Need), the replacement recruitment FTE (Supply) and forecast adjustment by Zones Medical Leaders to account for future policy and infrastructure changes (Planning Variables).

Oncology, Pediatric Surgery and Psychiatry show the highest Total Recruitment need in the province. These specialties may need to recruit 128, 25 and 474 FTE respectively, representing 154%, 90% and 87% of their current workforce FTE.

[1] Including Planning Variables
[2] Retirements, Migrations, and Gender-Shift
[3] Due to effects of Covid Pandemic on the past two years of health data.
[4] Due to adjusting the Gender Shift ratio this year.
[5] Table 1: 10 Year Need
[6] Table 2: 10 Year Replacement

Specialties

Due to limited space and for better visibility, the following abbreviations have been used instead of the specialties' full name.

Specialties	Specialties' abbreviations
Anesthesiology	Anes
Cancer	Cancer
Diagnostic Imaging	DI
Emergency Medicine	EM
Lab Medicine & Pathology	Lab
Medicine	Med
Medicine - Pediatric	Med-Ped
Obstetrics & Gynecology	OBGYN
Psychiatry	Psych
Public Health	PH
Surgery	Surg
Surgery - Pediatric	Surg - Ped

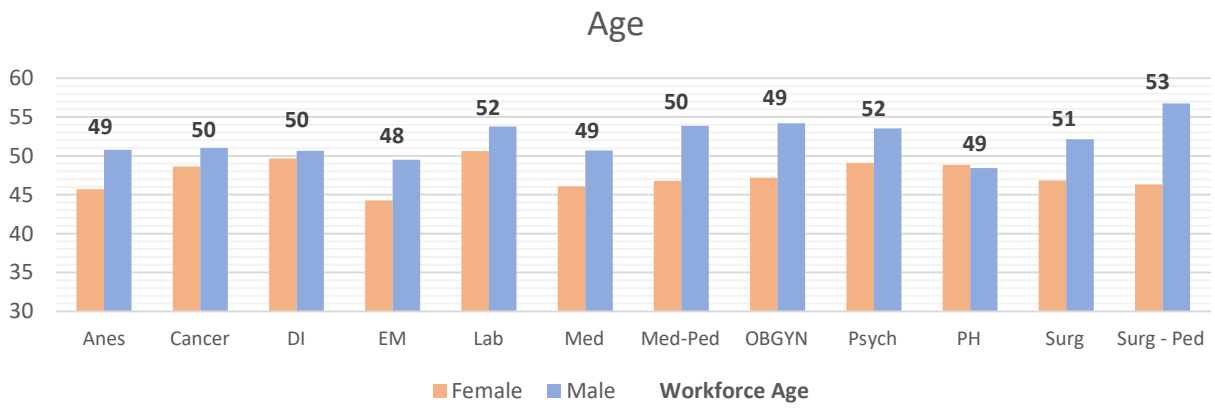
Demographics[7]

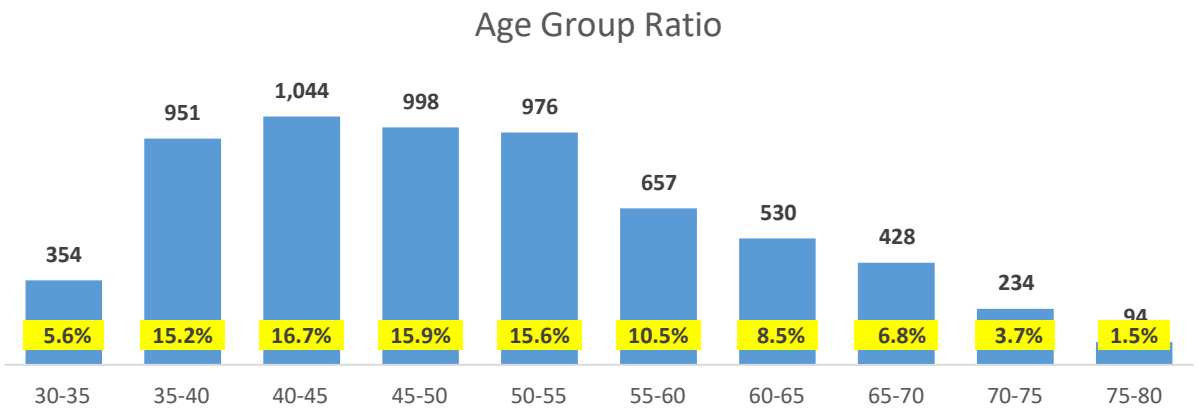
38% (2,400) of the Specialists workforce (4,400) are Female. The average age of active Specialists is 50 years old. The Headcount to FTE (total) ratio is almost 70%.

Specialties	Female FTE	Female HC	Male FTE	Male HC	Total FTE	Total HC	Female FTE/HC	Male FTE/HC	Workforce FTE/HC	Female %	Female Age	Male Age	Workforce Age
Anesthesiology	87.5	146	194.2	322	281.7	468	59.9%	60.3%	60.2%	31.2%	46	51	49
Cancer	30.3	52	52.2	88	82.5	140	58.3%	59.4%	58.9%	37.1%	49	51	50
Diagnostic Imaging	98.2	115	302.8	357	401.0	472	85.3%	84.8%	84.9%	24.4%	50	51	50
Emergency Medicine	179.2	224	365.1	437	544.3	661	80.0%	83.5%	82.3%	33.9%	44	50	48
Lab Medicine & Pathology	86.8	120	101.1	143	188.0	263	72.4%	70.7%	71.5%	45.6%	51	54	52
Medicine	405.3	652	705.0	1,090	1,110.3	1,742	62.2%	64.7%	63.7%	37.4%	46	51	49
Medicine - Pediatric	272.5	396	184.0	269	456.5	665	68.8%	68.4%	68.6%	59.5%	47	54	50
Obstetrics & Gynecology	143.6	204	65.6	98	209.1	302	70.4%	66.9%	69.2%	67.5%	47	54	49
Psychiatry	221.6	286	315.1	390	536.7	676	77.5%	80.8%	79.4%	42.3%	49	54	52
Public Health	14.0	21	8.8	21	22.8	42	66.7%	41.9%	54.3%	50.0%	49	48	49
Surgery	102.7	163	444.0	688	546.7	851	63.0%	64.5%	64.2%	19.2%	47	52	51
Surgery - Pediatric	9.3	15	16.1	30	25.4	45	62.1%	53.5%	56.4%	33.3%	46	57	53
Total	**1,650.9**	**2,394**	**2,753.8**	**3,933**	**4,404.8**	**6,327**	**69.0%**	**70.0%**	**69.6%**	**37.8%**	**47**	**52**	**50**

[7] Physicians older than 80 years of age have been removed from the demographic report.

The following graphs present the Specialists' workforce age distribution. Almost 12% of the workforce are 65 years or older; and over 31% are 55 and older, meaning a large chunk of our existing workforce may wind down practice and retire over the next decade.





The following graph shows active FTE for each age category. Physicians between the age of 30 and 50 have the highest FTE rate (0.76).

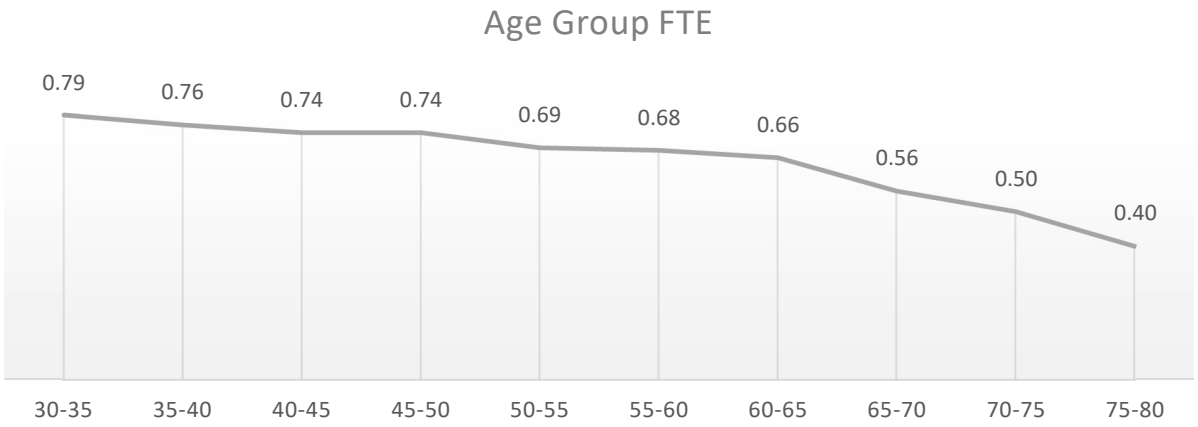


Table 1: 10 Year New FTE and Total Growth Rate (%)[8]

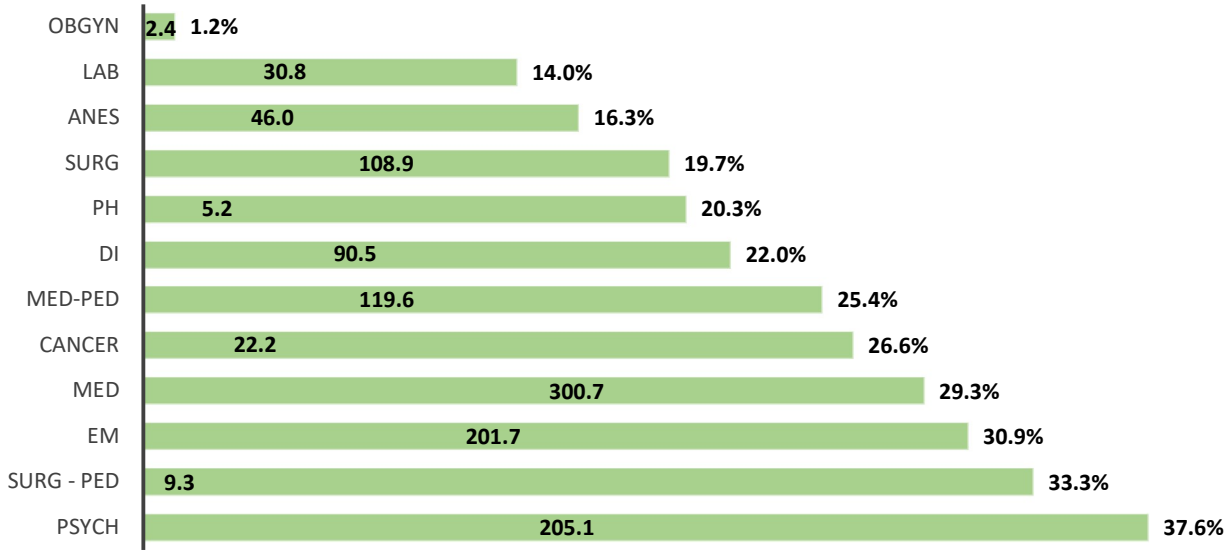
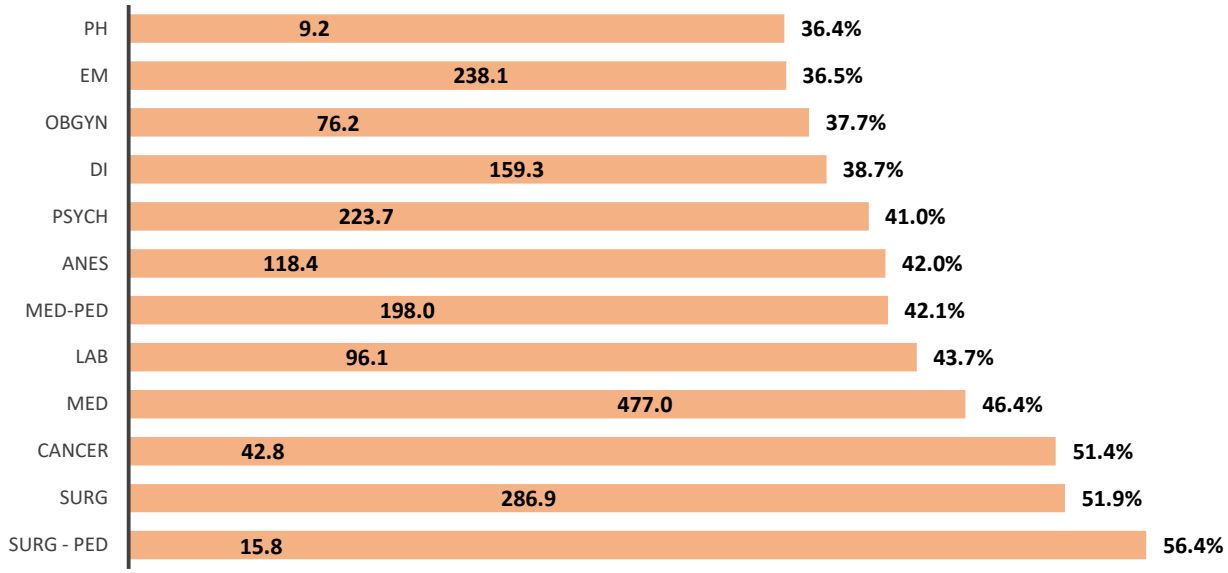


Table 2: 10 Year Replacement FTE and Total Replacement Rate (%)[9]



[8] The numbers on the pillars refer to the anticipated net new FTE Need and the percentages above the pillars indicate the net new to current workforce FTE ratio.

[9] The numbers on the pillars refer to the anticipated replacement FTE and the percentages above the pillars indicate the replacement to current workforce FTE ratio.

Table 3: 10 Year Recruitment and Total Recruitment Rate (%) [10]

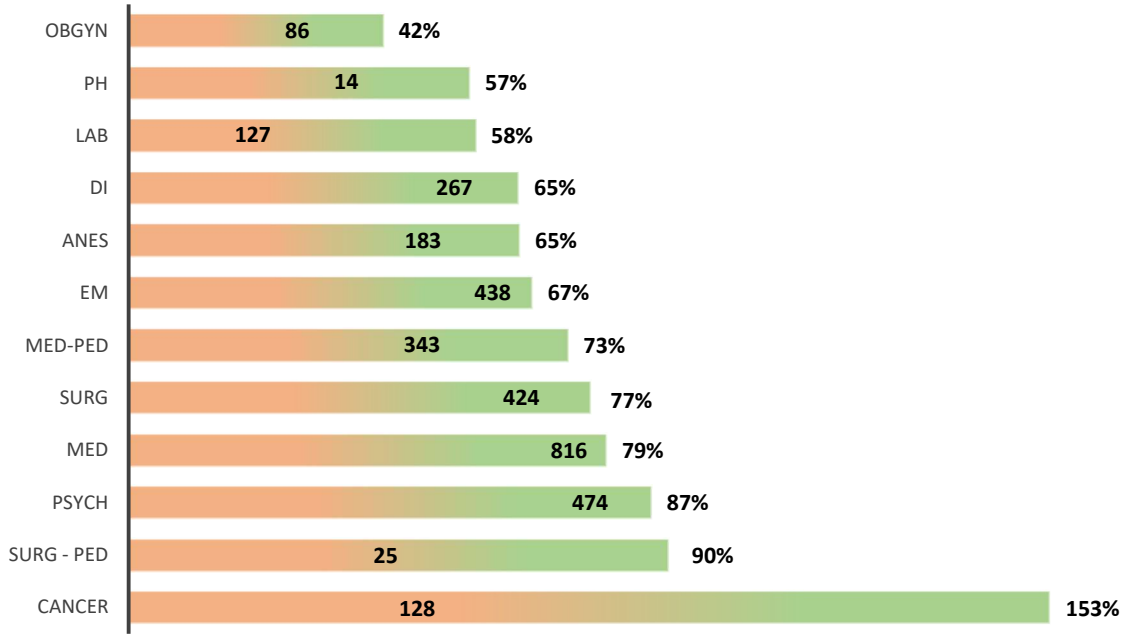
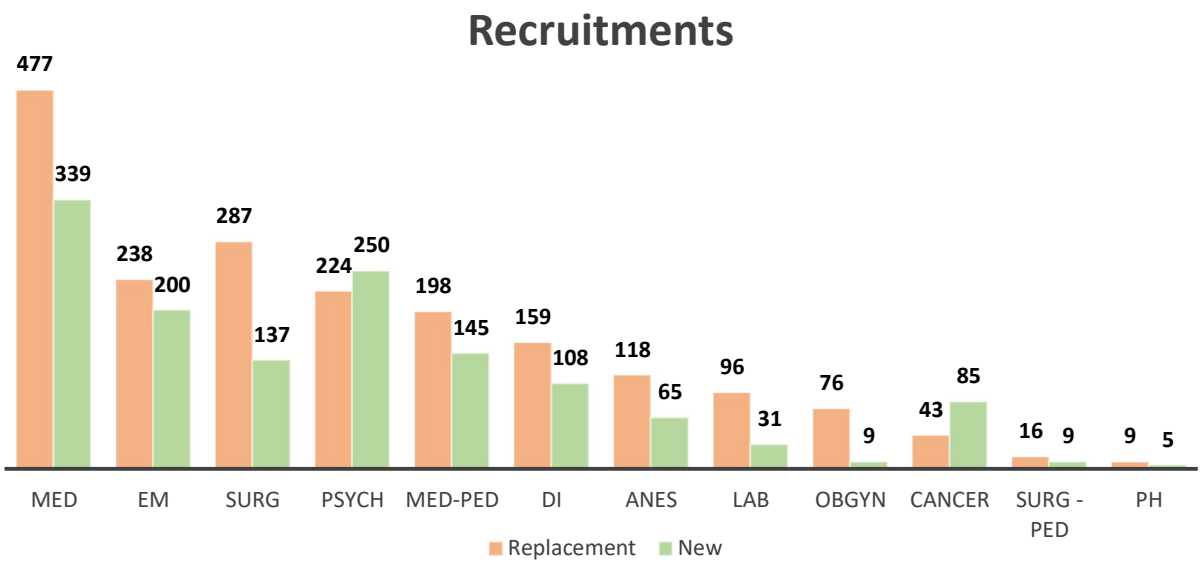


Table 4: New vs Replacement[11]



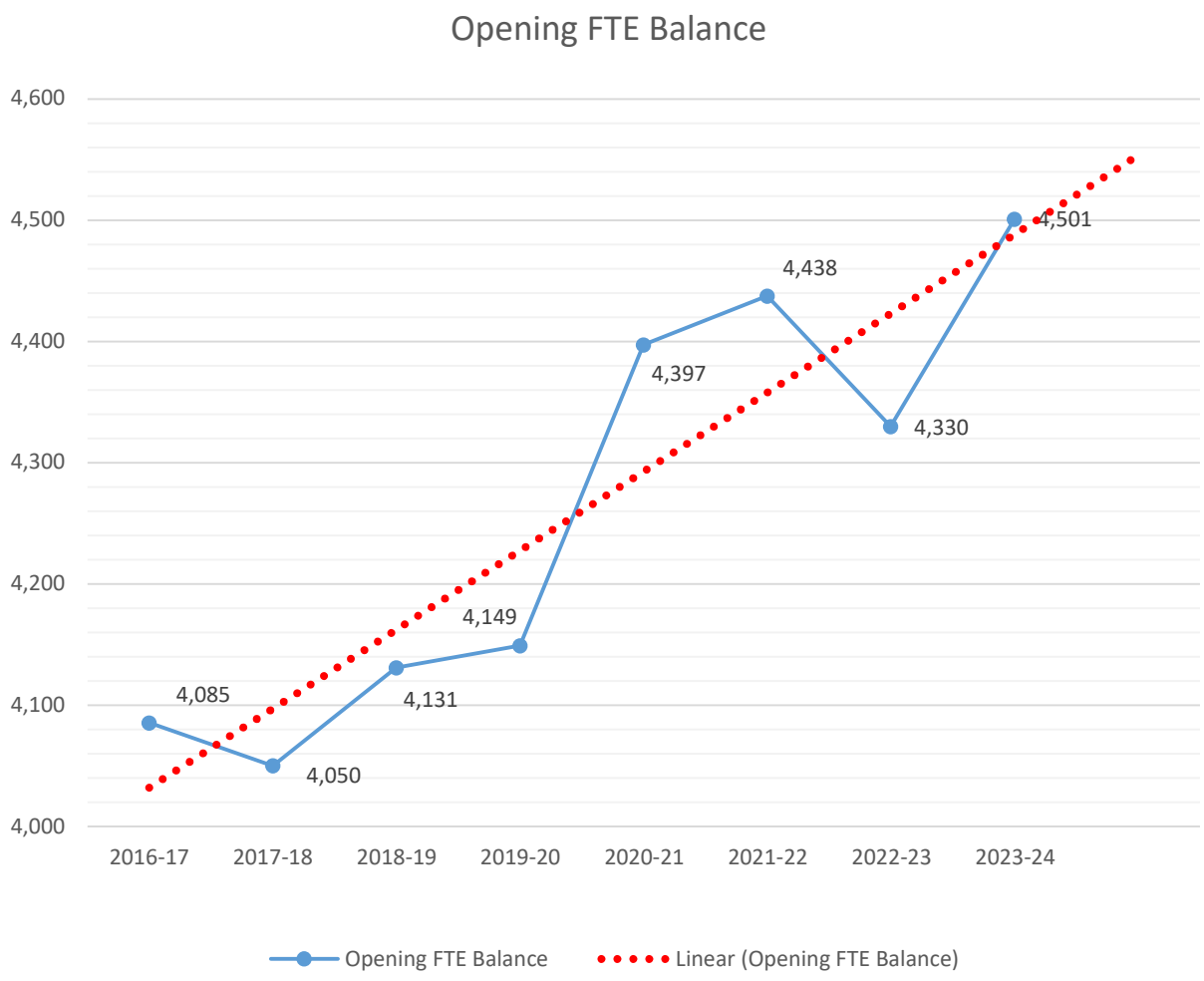
[10] The numbers on the pillars refer to the total anticipated recruitment FTE and the percentages above the pillars indicate the 10 years recruitment to the current workforce FTE ratio.

[11] The specialties are sorted by descending order based on the current workforce FTE size.

8 Years Trend Analysis

1) Opening Roster FTE

The opening roster in this year's forecast (2023-24) shows an increase of 4% compared to last year[12][13]. Over the span of 8 years, physician FTE growth has increased by over 10%. Based on the overall trend, AHS anticipates an increase of 1.1% in opening FTE for the next year (2024/25).

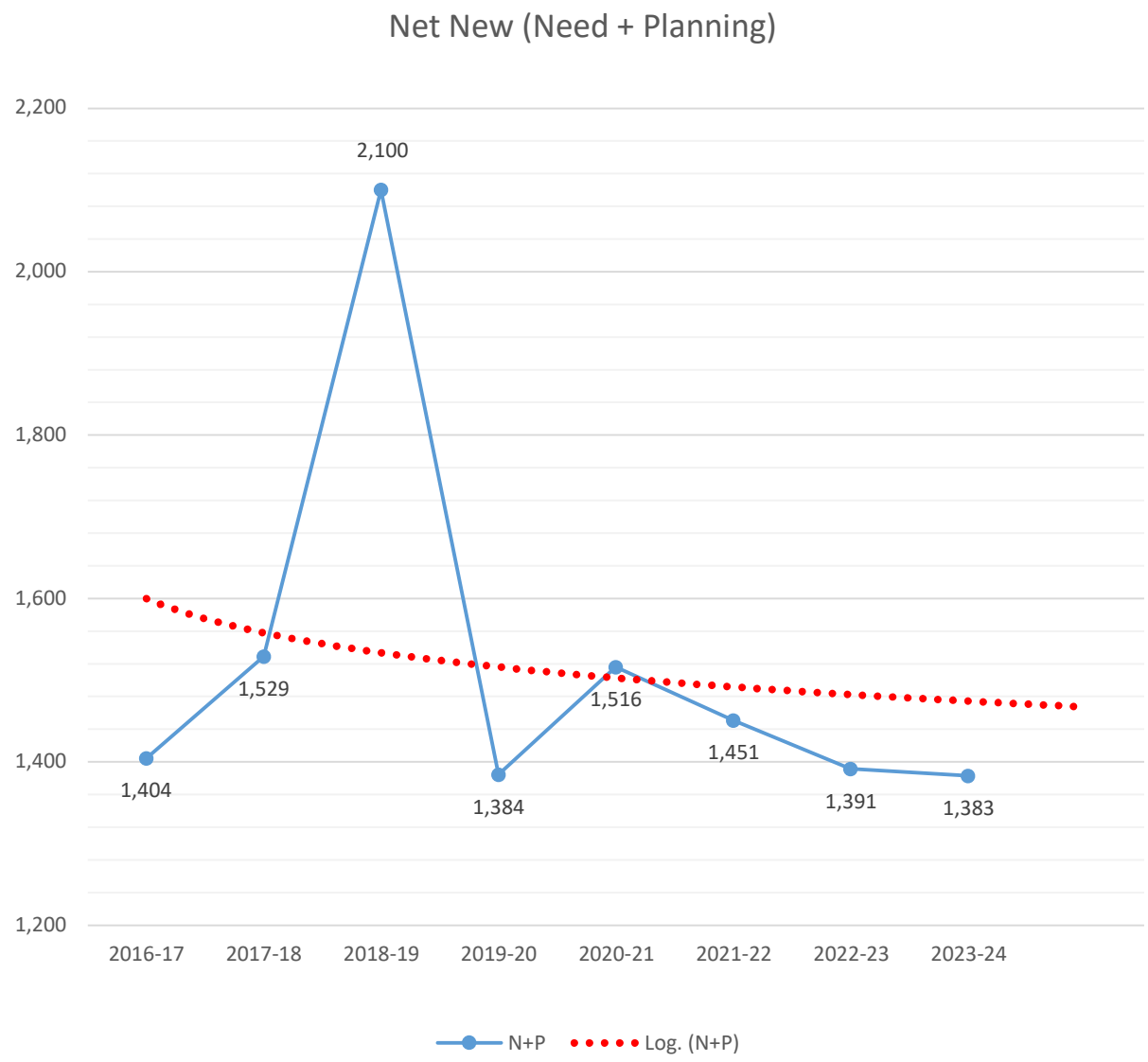


[12] The unusual FTE growth 2020-21 vs 2019-2020 was due to FTE update methodology change, not the actual recruitment.

[13] The drop in opening FTE from 2022-23 comparing to its prior year was due to removing inactive physicians from the application.

2) Net New (Forecasted New Need + Planning Variables)

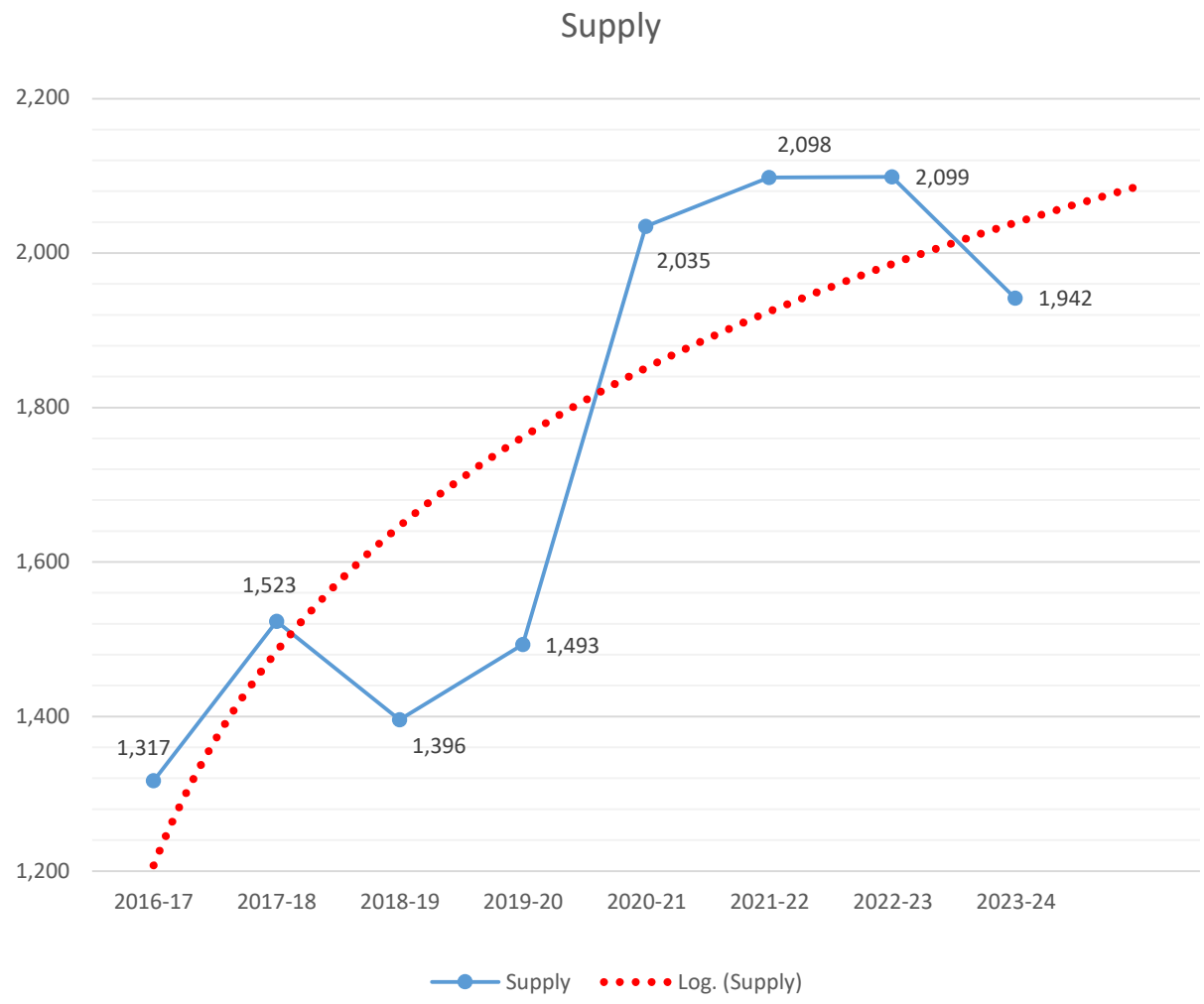
The forecasted need FTE (based on a variety of data sources) and the planning variables' FTE (adjustment applied by the medical leaders) combined form the total Net New FTEs. The Net New FTE has decreased by less than 1% compared to last year[14]. The 8 years trend line (dotted line) anticipates approximately incremental net new 1,460 FTE for the next 10 years Need.



[14] Please note, that 2018-19 abnormal high need was due to significant spike in the first year of certain specialty forecasts based on the available data at the time (CRGs). In 2019-20, AHS switched to CIHI HPG methodologies, which created a more even net new increase projection in the forecast.

3) Anticipated Replacement Recruitment (Supply)[15]

The drop in replacement rate for 2024 (compared to 2023) is due to adjusting the gender shift measures. This year's forecast indicates 1,940 FTEs are needed throughout the next 10 years to fill in replacement positions. It is 70% higher than the anticipated Net New FTE (Need) forecast[16]. On average, 130 FTEs exit (retire) from the workforce per year; it follows a very low and steady declining trend. In addition to the separation, the replacement section includes Gender Shift and NIPM/RFA, which both are increasing rapidly.

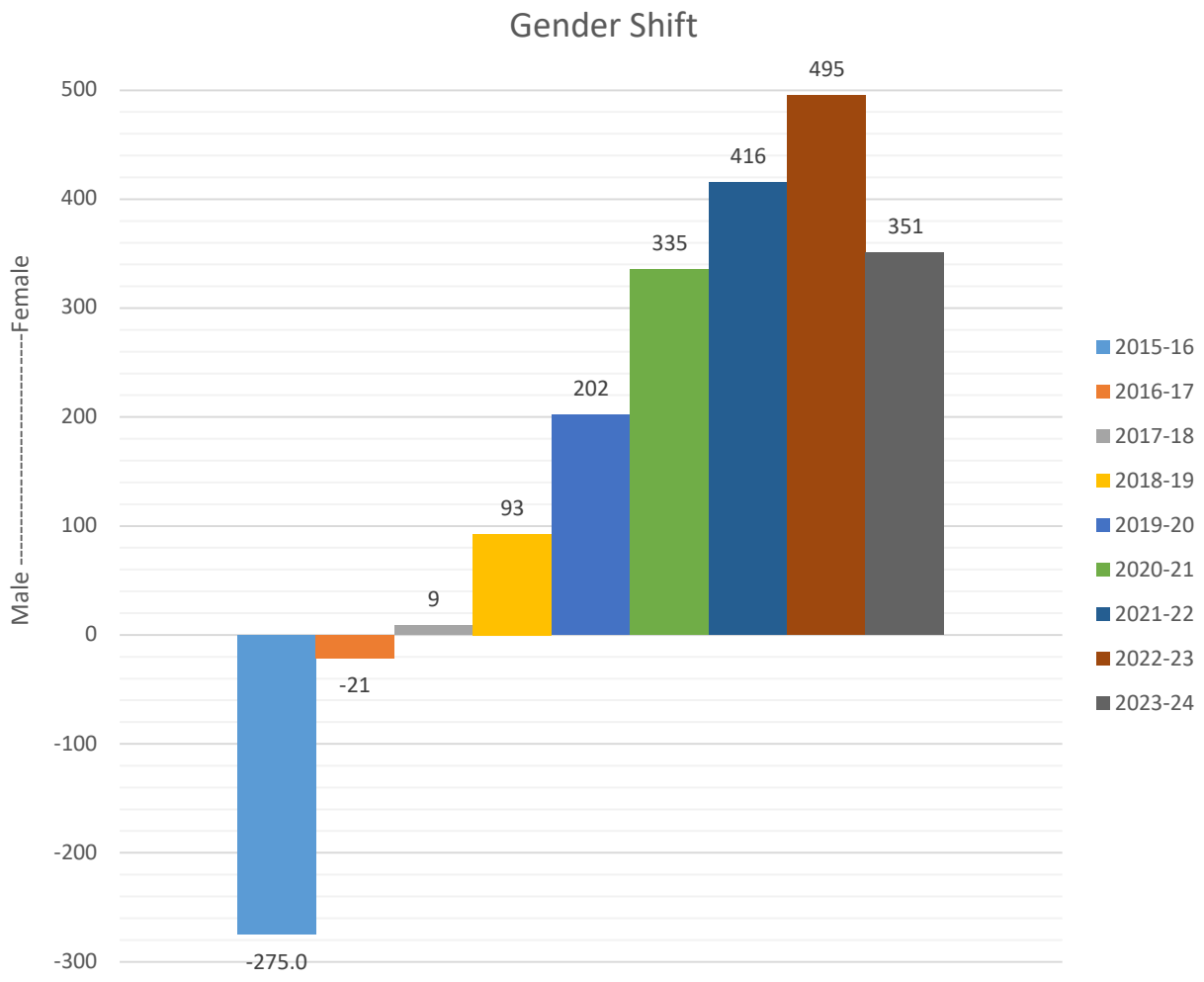


[15] Due to some methodology challenges from 2016-2019, the first four years' numbers are not reflecting the accurate replacement figures. The issue was addressed and corrected in 2020-21.

3.1) Gender Shift

Gender Shift measures the relative workload productivity, as expressed by Full Time Equivalency (FTE) values, between male and female physicians to adjust the forecast FTE according to the current and predicted male/female mix. This includes data showing different FTEs worked at different life stages, (e.g. 12-18-mont maternity leaves that require locum coverage).

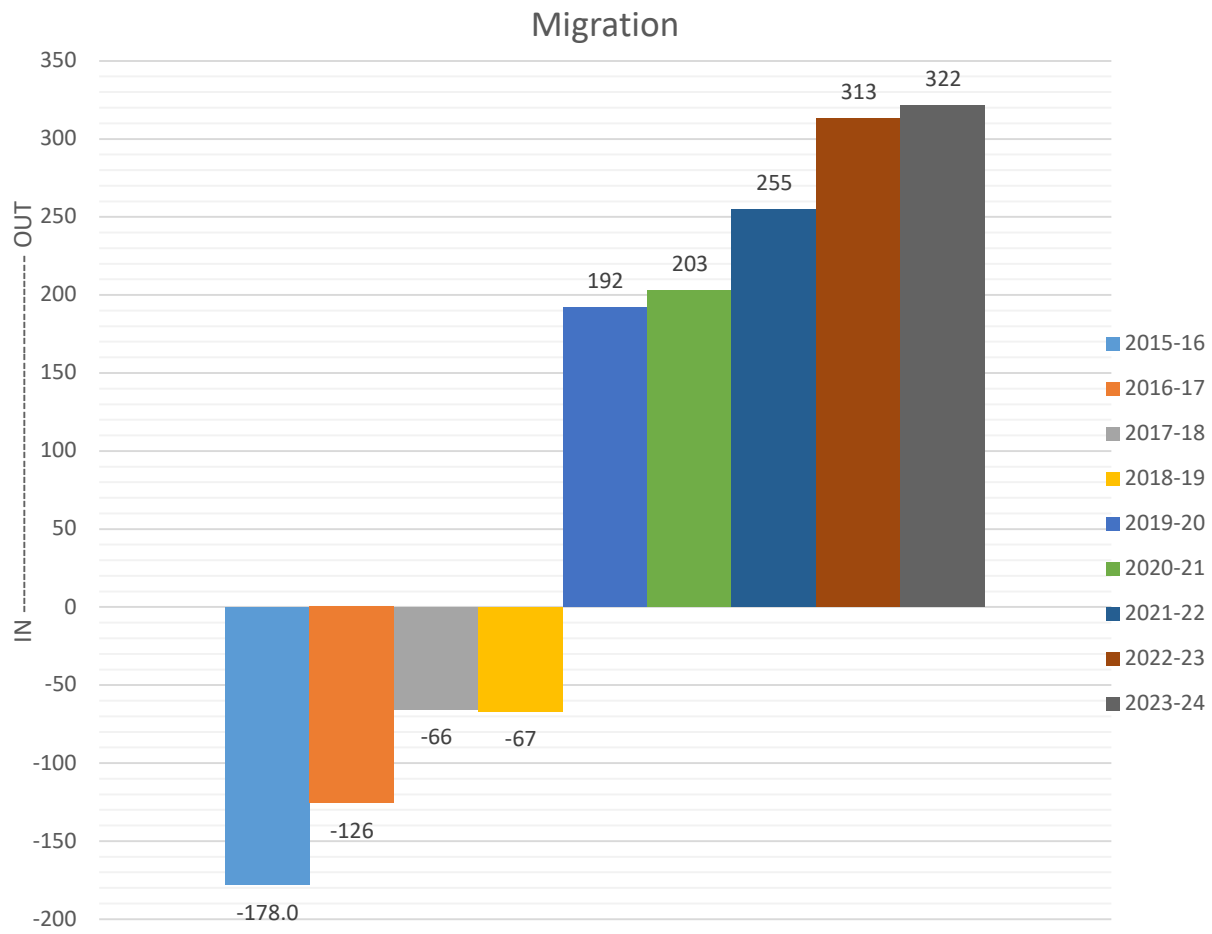
The methodology is somewhat connected to billing data which does not translate perfectly to time spent with patients. Therefore, negative numbers suggest the male workforce FTE is increasing and the positive values indicate the increase in female workforce FTE. AHS has reviewed new studies and explored new data points on FTE related to Gender Shift this year. The female to male replacement trend is still moving upward, but the replacement value has decreased as a result.



3.2) NIPM / RFA

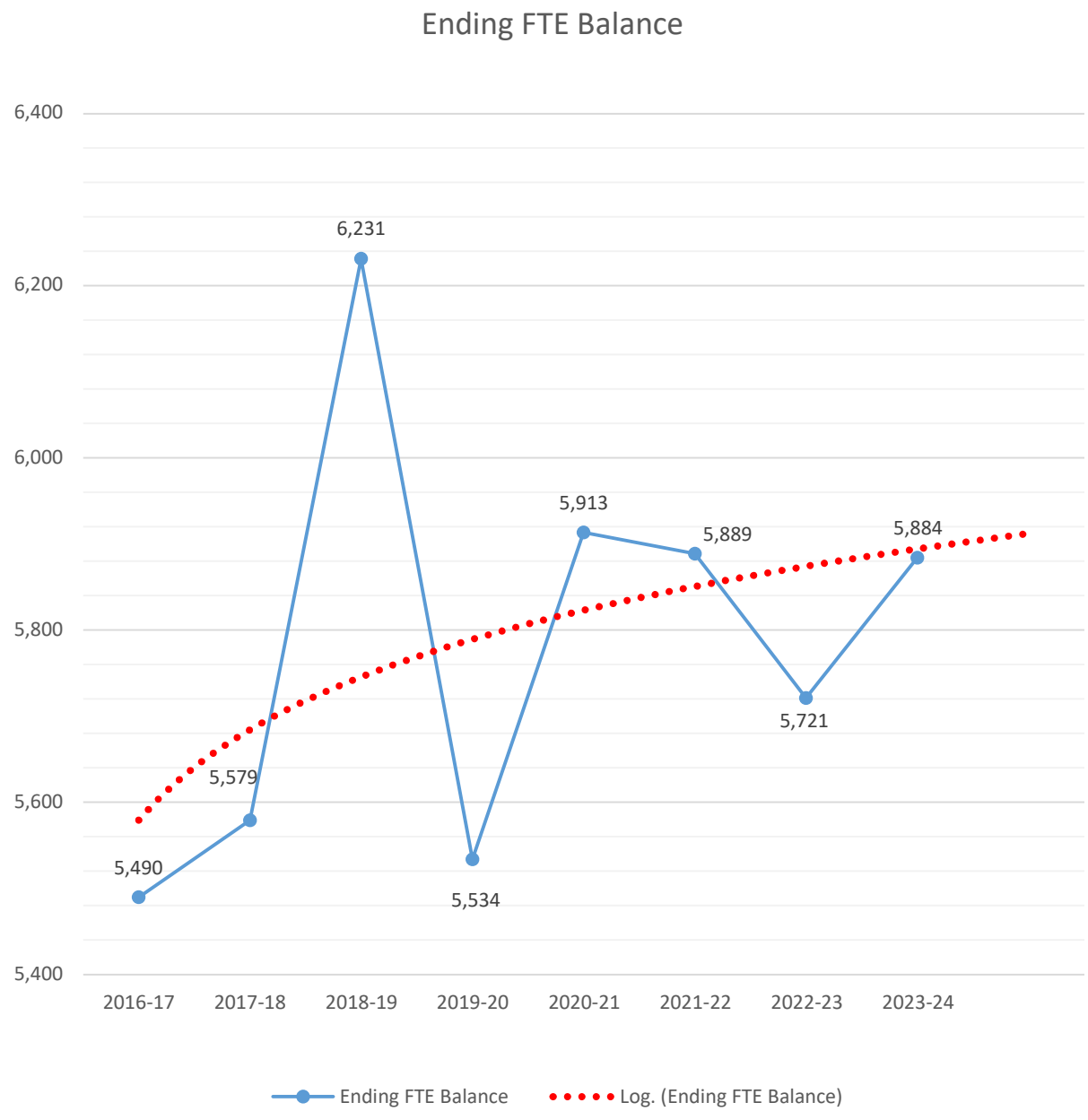
Rate of physicians' Net Inter-Provincial Migration (NIPM) and rate of Return From Abroad (RFA). To adjust future supply for the predicted number of physicians who will migrate into and out of province within Canada (NIPM) and for the predicted number of physicians who will migrate into the province from out of country and migrate out of country from within the province (RFA).

Our 9-year workforce data trend shows a negative migrating trade off. Basically, more physicians are leaving our province to other provinces or countries than there are physicians coming in from other locations and that trend has been increasing every year. It means we need 322 more FTE to neutralize the effect of migrations out of Province and out of country throughout the next 10 years.



4) Ending FTE Balance

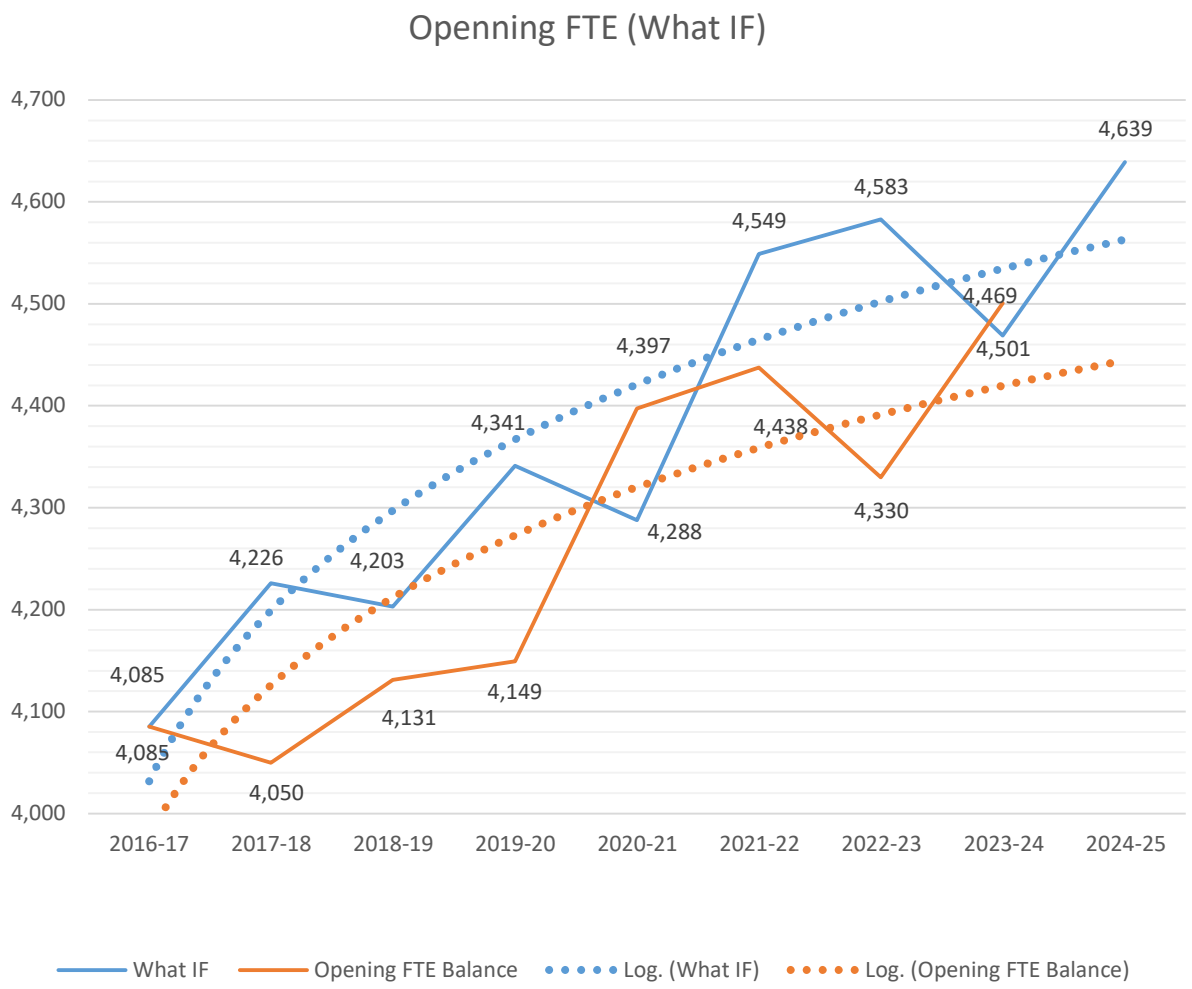
The ending (10 years) FTE balance is equal to current roster FTEs plus the Net New FTEs considering all replacement positions been filled.



5) What IF

In the following graph, the actual opening FTE is compared with the forecasted opening FTE balance (the forecasted ending FTE of the prior year). The "What If" value is the actual opening FTE of the prior year plus the anticipated net new need of the same year, which represents the next year's anticipated opening FTE. For example, this year's opening FTE is roughly 4,500 (orange solid line). Based on last year's (2022-23) net new need forecast (140) and its opening FTE (4,330), the opening FTE for this year *should* have been 4,470 (blue solid line) IF all suggested net new FTEs were recruited successfully. Considering this year, next year we will have a deficit of -30 FTE.

The gap between the Opening FTE trend line (dotted orange) and the What If trend line (dotted blue) measures the recruitment success. The wider the gap the lesser the success in recruitment. The data trend points to an increasing gap year-over-year, between our anticipated net new need and our actual annual FTE growth (~110 FTE). The "What If" forecast suggests almost 85 FTE (1.9%) deficit for next year (2024-25).

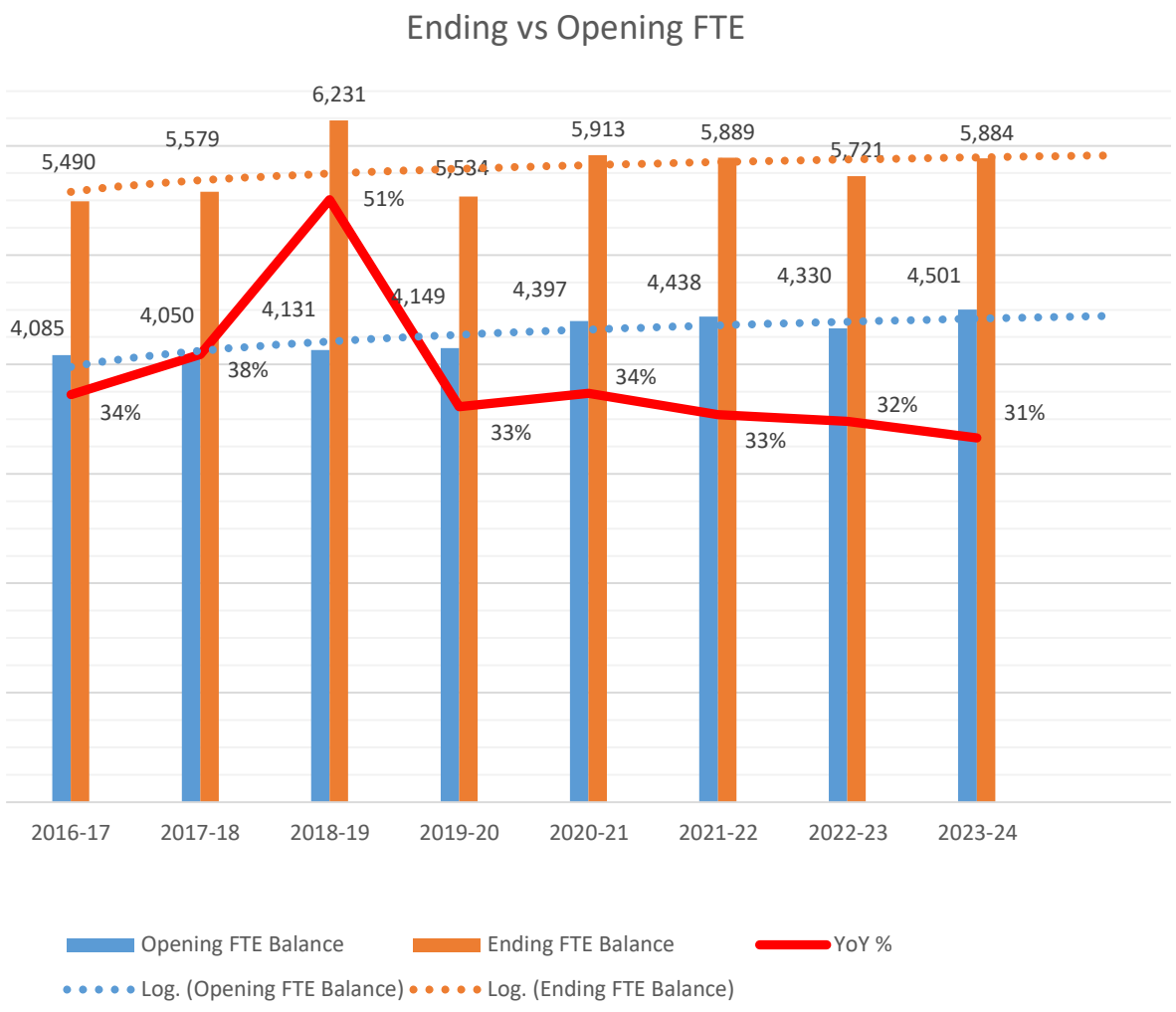


6) Planning vs Need FTE

The following graph shows the magnitude of the adjustment (by Zones) to the forecasted FTE, so called Planning Variables.

This graph in addition to the earlier (5. What If) graph provides better insight on workforce forecasting and recruitment planning. By applying proper planning variables, we can present a more realistic workforce forecast to fit our recruitment planning reality.

Having said that, in coming year(s), planning variables will play a major role to adjust the net new forecast due to irregularity in health data that has caused by the COVID-19 pandemic[17].



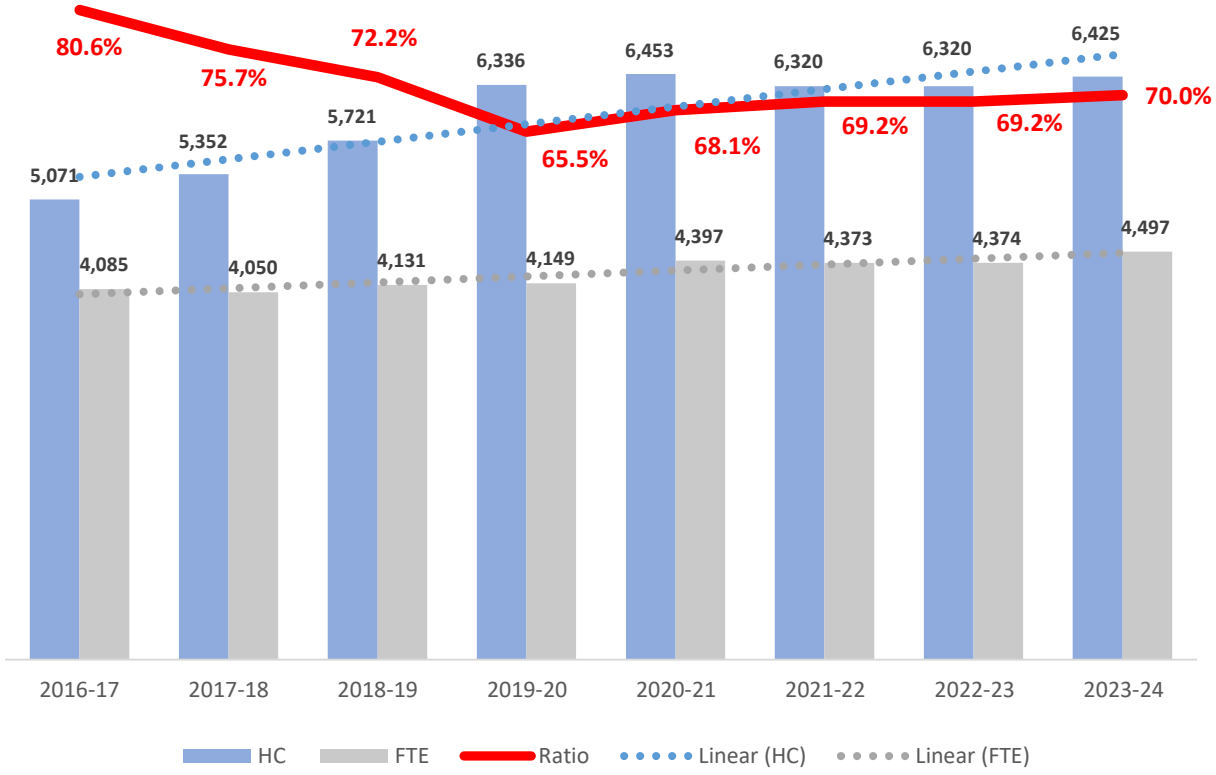
[17] The growth in planning variables application in this year is mainly applied to compensate for the lower net new forecast due to irregular health data trend since COVID 19 Pandemic.

FTE vs Headcount (Specialists)

The workforce forecasting methodology focuses on physicians FTE (full-time equivalent) rather than headcount[18]. Studying the relationship between headcount and FTE can contribute to better recruitment planning.

Eight years of specialist workforce data has been used to explore the evolving relationship between the physician workforce headcount and FTE.

1. The recent year data shows steady and stablished FTE/HC ratio at around 70%. The solid blue line represents this change throughout the past six years.
2. The dotted blue line shows the increasing trend of the headcount.
3. The FTE trend is almost flat (dotted grey line).
4. Since year 2016, our workforce headcount has increased by almost 27% while the FTE has increased by less than 10%.

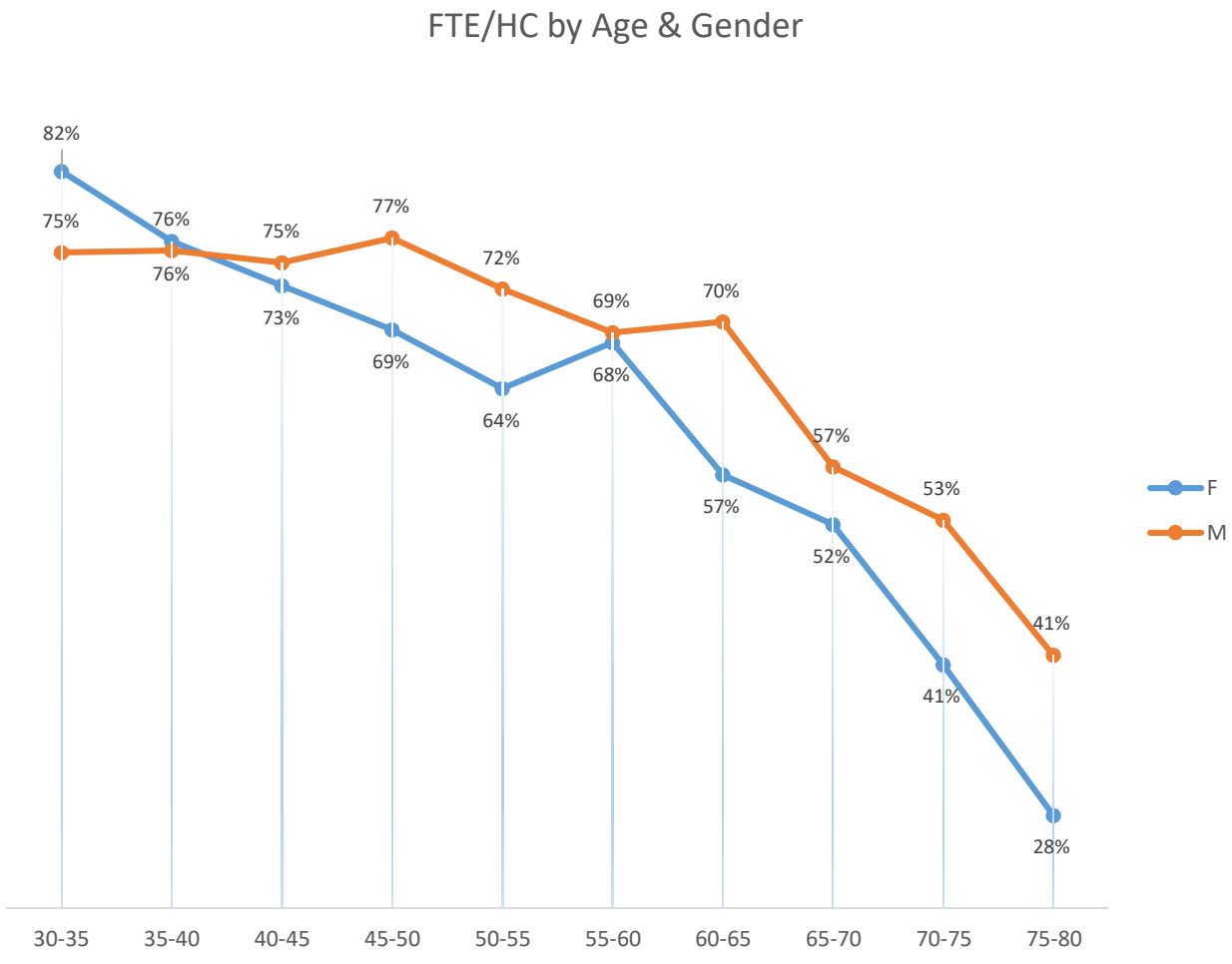


[18] In occasions that FTE is not available the headcount (FTE=1) will be applied.

FTE vs Headcount by Age and Gender (Specialists)

The table below shows the FT/HC by gender and age group.

Statistical test shows there are no sufficient evidence to prove male and female FTE to headcount ratio are equal.



Physicians Supply vs Service Demand (PGME vs PWP)

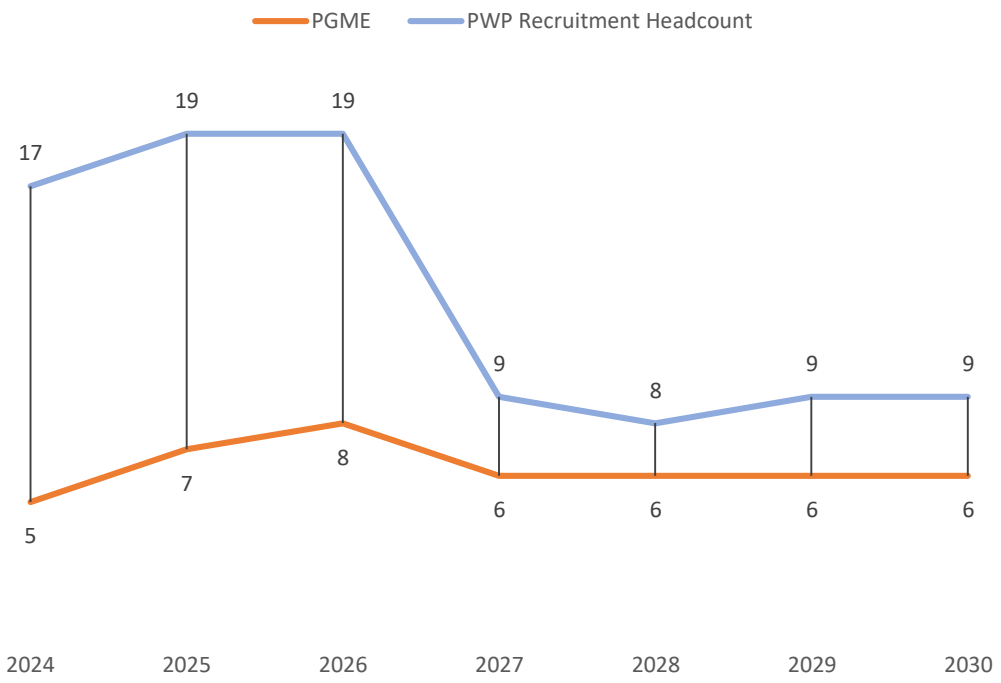
This year's forecast suggests there will be 1,940 replacement and 1,380 net new FTE (including planning variables) needed over the next 10 years to maintain the same level of service. This would suggest a yearly recruitment need of 350 FTE. Considering the FTE to Headcount ratio (70%), that translates to approximately 500 physicians per year to meet the anticipated workforce growth.

Using our annual forecast numbers and Alberta's resident physician training volumes, AHS can plot out a basic supply and demand visual for various specialties and family medicine disciplines.

The chart below illustrates a sample Supply/Demand analysis comparing University of Alberta Anesthesiology graduating residents against the annual forecasted need identified for Edmonton Zone Anesthesiology.

Edmonton Zone Anesthesiology has been selected as example only.

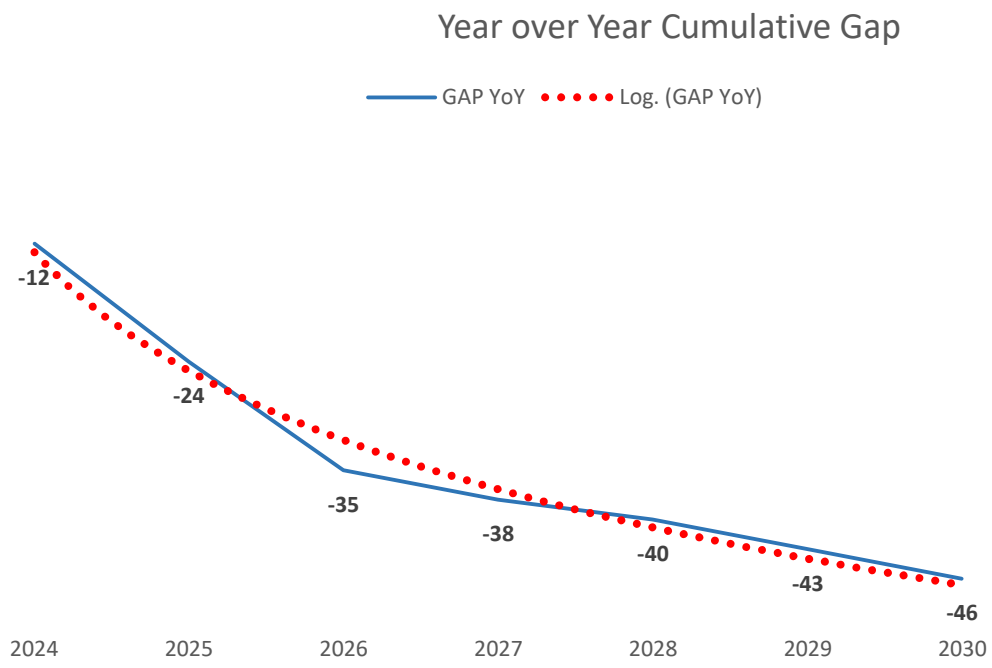
The average specialists FTE/HC has been used for Anesthesiology is assumed 70%[19]. The PGME retention rates is applied at 75%[20].



The graph shows a big gap for the years 2024, 2025 and 2026 due to use of 6 FTE annually as planning variables.

[19] This is based on the average specialties FTE/HC ratio.
[20] Based on our historical average the PGME's retention rate.

The following graph shows the year over year shortage of Anesthesiologists for the next 7 years[21].



This is an example of reports that can be done correlating our endogenous supply with our projected needs. This can be prepared for specialties in urban areas or province wide.

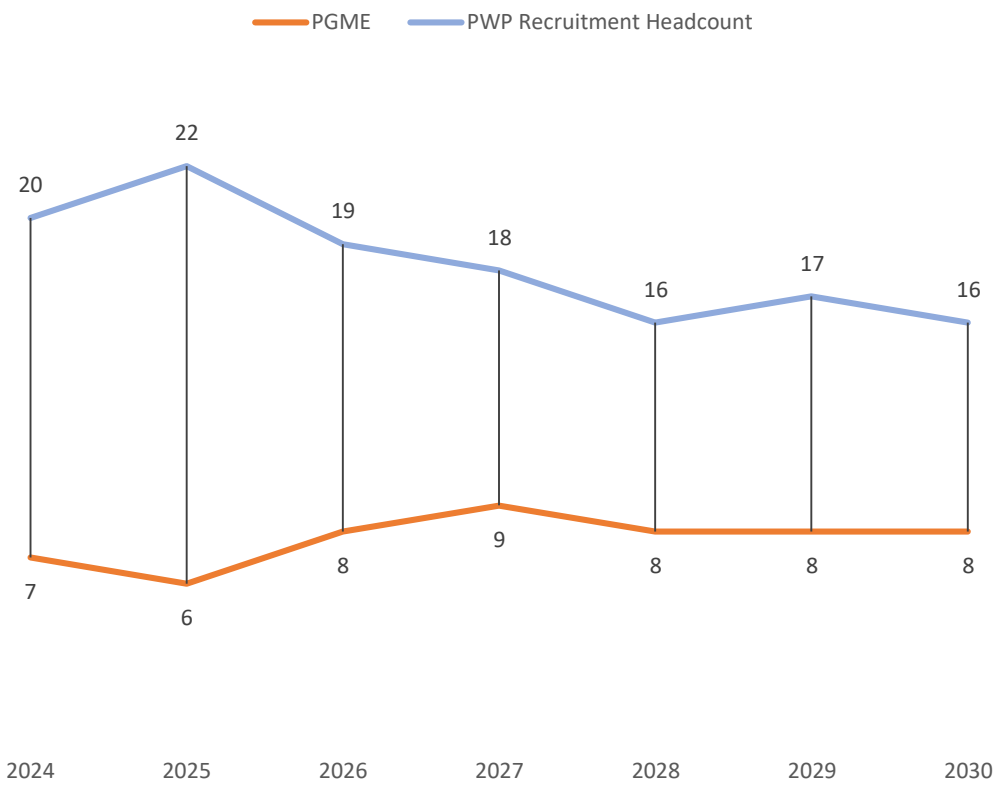
[21] PGME 2029 and 2030 graduates are an estimate based on the 2024 to 2028 report.

Physicians Supply vs Service Demand (PGME vs PWP) Continue …

The chart below illustrates a sample Supply/Demand analysis comparing University of Alberta Psychiatry graduating residents against the annual forecasted need identified for Edmonton Zone Psychiatry.

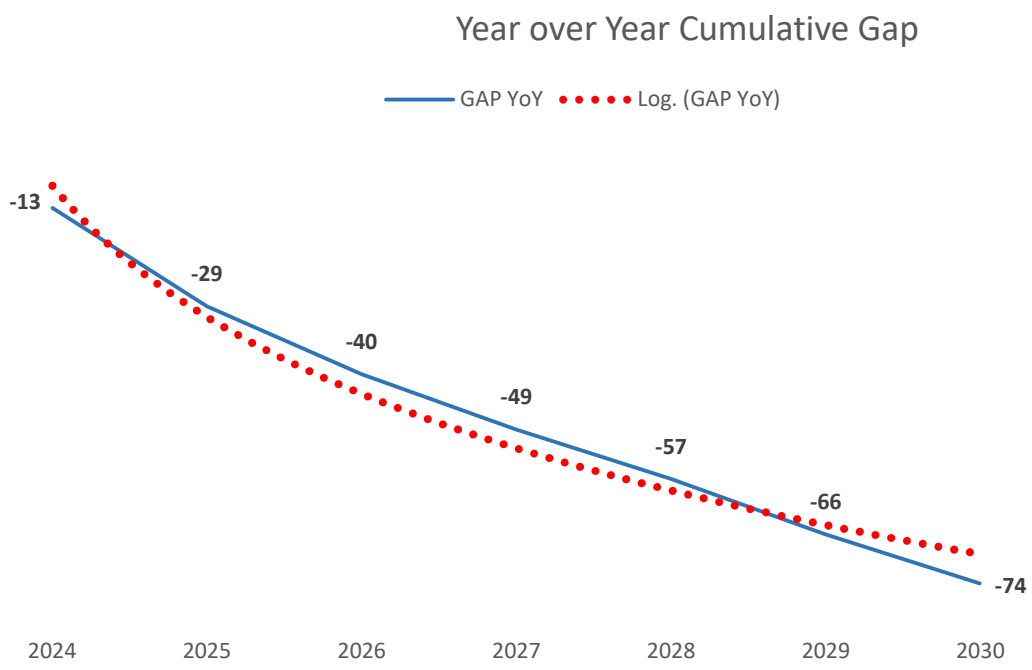
Edmonton Zone Psychiatry has been selected as example only.

The average specialists FTE/HC has been used for Psychiatry is assumed 70%[22]. The PGME retention rates is applied at 75%[23].



[22] This is based on the average specialties FTE/HC ratio.
[23] Based on our historical average the PGME's retention rate.

The following graph shows the year over year shortage of Anesthesiologists for the next 7 years[24].



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[24] PGME 2029 and 2030 graduates are an estimate based on the 2024 to 2028 report.

Policy Opportunities

This year's forecast presents AHS and our healthcare partners with a number of important considerations regarding our future physician workforce. The forecast itself is simply one tool available to leaders and policy makers to reference when thinking about the sustainability of our healthcare system and being able to rise to meet future need. However, when the projections can be connected with recruitment planning, current and anticipated workforce supply shortages, physician education planning, and known future legislation, it allows AHS to recommend some policy and project opportunities to assist Alberta in meeting our future workforce needs and/or changing the course of the forecast by exploring alternative options beyond the recruitment of more physicians.

In 2023-24, AHS has identified several policies / project opportunities to help Alberta address our future physician workforce need:

1) **Re-establishment of the Physician Resources Planning Advisory Committee (PRPAC) or equivalent**
   The PRPAC and its sub committees, disbanded in 2018, provided an opportunity for stakeholders from AH, AHS, AMA, CPSA, the two Faculties of Medicine, RhPAP, other organizations, and physician and public members to convene as a group to share data, identify levers for physician supply/recruitment/retention, and implement action plans. AHS will work with AH and the four new healthcare organizations (Primary Care, Continuing Care, Recovery Alberta, and Acute Care) to re-establish this forum or establish a new forum with similar principles that considers the evolving landscape of healthcare in Alberta.

2) **Post Graduate Medical Education (PGME) Distribution and Volume**
   AHS has engaged with AH and the two Alberta Medical Schools to demonstrate how our workforce forecasts in anesthesiology and non-urban family medicine compare with the known supply of new resident physicians graduating into practice in Alberta. Although not all physician recruits in Alberta are strictly U of A or U of C graduates, these samples may still help us identify together which groups may be in oversupply (i.e. the residents may not find full time work upon graduation) and which groups we do not have enough of (i.e. we have a large deficit or have identified a large future recruitment need). Discussions are already underway to increase the available annual medical school and residency training spots. AHS will continue to work with PGME program stakeholders to continuously monitor and deliberate over PGME training seats in ways that allow the physician education system to be flexible and responsive to Alberta's physician needs.

3) **Sustainability of Surgery / Anesthesia programs and the Alberta Surgical Initiative Through Use of Anesthesia Care Team Models**
   The Alberta Surgical Initiative (ASI) presents one of the biggest challenges to physician workforce need in Alberta's future. Anesthesiology recruitment, in particular, will prove difficult as there are currently national and international workforce shortages. Overall, the 2024

anesthesia forecast anticipates that 33 net new FTE growth and 40 replacement FTE may be required over the next decade. AHS will not be able to realize these projections with recruitment of anesthesiologists, alone.

AHS expects alternative providers to play a big role in the sustainability and growth of anesthesia services over the next 3-5 years. AHS has already begun implementation of proof of concept programs in Edmonton and Calgary, wherein Respiratory Therapists (RTs) are deployed within ophthalmology clinics to extend the existing anesthesiologist workforce. Ultimately, AHS's goal will be to build on the RT role with opportunities for to receive enhanced training in order to practice in other clinical settings, including orthopedic surgery and endoscopy. AHS is also working towards establishment of a local training program for Anesthesia Assistants (AAs), a role more common in other Canadian provinces.

With the regulation of Physician Assistants (PAs) in 2021, Zones have also developed PA (and clinical assistant) recruitment plans to support surgery units in the delivery of ASI targets. For example, PAs could help perform patient rounds, allowing surgeons to spend more time in the operating room where their skills are most needed. PA placement priorities also include primary care, tier 1 intensive care units, and acute care.

When it comes to use of AAs and PAs, AHS Medical Affairs will work with Health Professions Strategy and Practice (HPSP) and HR to understand the current environment for these health professions in Canada and determine if changes need to be made to our current salary structure / incentive package in order to successfully recruit qualified candidates.

4) **Oncology Expansion**

Over the past few AHS workforce forecast cycles, Medical and Radiation Oncology specialty forecasts have begun to trend upward. In 2024, the forecast anticipates that cancer care may need to nearly double in size over the next 10 years (from ~80 FTE today to ~150 FTE by 2033/34) simply to keep up with growing patient demand.

The Arthur J. E. Child Comprehensive Cancer Centre in Calgary is expected to open this year and this new facility will go a long way in supporting Albertan's access to oncology services. However, proactive, and sustained recruitment across all Zones should be a priority for Medical Affairs and Cancer Control Alberta.

In addition, AHS must continue to expand service delivery plans and comprehensive care teams to help extend the ability of our existing oncologists, including use of family medicine physicians with additional training / expertise in oncology treatment and support.

Appendix A - Data Collection

Physician Workforce Planning (PWP) Software Application

The PWP software application gathers and reports data related to specialist physicians in terms of clinical FTE. This software application produces standardized forecasts reflective of population health needs, service delivery requirements, planning and resource allocation, and AHS business plans.

The PWP application scope includes:

All specialist physicians licensed for independent practice by the CPSA, including physicians working in AHS facilities and Community-based physicians.

Canadian College of Family Physicians (Emergency Medicine) Certificates: family medicine physicians with an AHS primary appointment in Emergency Medicine and family medicine physicians with an AHS supplementary appointment in emergency medicine who work in a facility with 24 hours on-site emergency coverage.

The PWP application does not include short-term locums (physicians who are working in the same role/position less than 12 months), physicians with limited practice licenses (e.g., limited to clinical assisting or surgical assisting), or dentists/oral & maxillofacial surgeons/podiatrists.

There are three essential parts to the PWP forecast: Needs Assessment, Replacement Assessment, and Planning Adjustment.

Needs Assessment

Four methodologies are used to forecast specialist need.

The software application provides a data driven, statistical platform to review the 77 Royal College of Physicians and Surgeons of Canada (RCPSC) specialties regarding their current commitment in clinical FTE by Zone and at a provincial level, over a period of 10 years.

In the PWP software application, each RCPSC specialty has one forecast method set as default.

Method A uses CIHI HPG data (based on AH physician Fee-For-Service (FFS) claims data, AHS emergency and ambulatory care visits, aggregated from the previous 10 years) and is directly assignable to the RCPSC specialty in question.

Where there is insufficient claims data, **Method B** uses proxy HPGs as these specialties cannot be linked to HPGs directly.

For specialties using **Method C**, little FFS and hospital admission data is available, and specialties cannot be linked to another specialty as a proxy. Therefore, forecast need is linked to incidence of HPGs related to the specialty's work across the total weighted population.

In contrast with methodologies A, B and C, **Method D** is used where the requirement for physician services is driven by coverage requirements rather than volume of services, such as a certain number of hours of coverage in a defined facility and service. Typically, this methodology is used only for critical care medicine and emergency medicine.

Replacement Assessment

The Replacement Assessment uses current physician workforce demographic data (e.g. age), information on new Canadian graduates, gender shifts, rate net inter-provincial

migrations, and retirement/departures from practice to further refine the forecast.

Planning Adjustment

The PWP software application cannot anticipate adjustments in required net new clinical FTE due to development of new policies, AHS service delivery changes, facility development, and/or changes in medical practice (e.g. new technologies, philosophical changes in medicine). Zone Clinical Department Heads and Section Chiefs review their current roster, review the Needs and Replacement Assessments, and may still choose to adjust the forecast further to account for some of the factors mentioned above.

Appendix B - Methodology

Specialist physician workforce forecasting is supported by a software application, providing data-driven forecasts organized by Royal College of Physicians and Surgeons of Canada (RCPSC) specialties for specialist physicians and Canadian College of Family Physician (CCFP) categories of added competency or special interest for Family Medicine physicians. The plan's projections are based on data regarding population health needs, changes in population growth, current workforce, retirements and departures, gender mix, service delivery methods and volumes, and AHS and Covenant Health facility capacity. It also considers anticipated replacement of physicians, based on current medical school and residency program enrollment across Canada. Together, these inputs shape a forecast of workforce need.

Additional data has been collected from the College of Physicians & Surgeons of Alberta (CPSA), the Alberta Health Interactive Health Data Application (IHDA), the AHS Appointment & Privileging application, and the Canadian Institute for Health Information (CIHI).

Integrated Workforce Planning Approach

AHS develops multiple strategic workforce plans that help lead the organization from where it is now to where it would like to be. Many of these plans - including this one - are provider specific. As such, the target audiences, plan-to-plan, are different. This may lead to differences in plan format and content.

It is important to remember that the report is a conversation tool/guide to stimulate thinking around trends and developments in medicine service delivery models, capital planning and population health services need in Alberta. The report is intended to help AHS make decisions on service planning and influence choices made by Alberta Health, Faculties of Medicine, medical students, residents, etc.

The numbers provided in this forecast are not a target, but rather a projection. The forecast is not a recruitment plan, and AHS is not committed to realizing the projections found within this report. These (recruitment) increases could not be supported without operational and infrastructure changes. New models of care may drive physician FTE changes, but it could also drive more Nurse Practitioners, Physician Assistants, and other care providers to support and extend our existing physician workforce. Future physician

forecasts will need to continue to account for changes in medical practice, resource requirements, and new policies. However, Medical Affairs works closely with Health Professions Strategy & Practice, Human Resources, and other stakeholders to develop an integrated approach to workforce planning. Many sources of data used within the Physician Forecast are also used as part of Midwifery or Nurse Practitioner workforce planning. Plans are also shared and discussed between groups and can often influence each other. From a physician forecasting perspective, we must keep aware of policy changes or new service delivery models that will have direct or indirect effects on physician planning.

AHS's four organizational goals provide a common ground for alignment across all AHS workforce plans:

1. Improve patients' and families' experiences.
2. Improve patient and population health outcomes.
3. Improve the experience and safety of our people.
4. Improve financial health and value for money.

Planning Variables
(Forecast Adjustment)

Planning variables need to be applied to account for physician net new need associated with program expansion, incoming policy changes, infrastructure developments, etc., as these are areas the application cannot predict.

Before adding extra FTE as a planning variable, the followings should be considered:

a. The current forecasted need: making sure the "extra" need is above and beyond the forecasted net new FTE need by the tool.
b. Feasibility; considering the economic climate.
c. Applying the most accurate timeframe/fiscal year to produce accurate yearly forecast reports.

Although, planning variables are mostly used to address extra "need", there are situations where negative planning variables could be applied.

a. There could be change in policies that can affect workforce expansion negatively. They need to be addressed through planning variables.
b. When there is no planned recruitment in (near) future, add negative FTE(s) to zero out the specific fiscal year(s) FTE.
c. Since the forecasted need is distributed evenly (linear) throughout a 10-year period, usually it would not align with the zone/department/section's strategic planning. Adding or subtracting planning variable FTEs to each year could better align the forecast with the recruitment plans.

Planning variables can enhance workforce forecasting process and outcome while overestimated or inappropriate ones can damage the creditability of the result

2023-24 vs 2022-23

The COVID-19 pandemic has affected many aspects of our life since March 2020. One of which is the health service delivery methods that have been adapted to mitigate the harsh effects of the disease and to increase and to improve Albertans access to health facilities.

The rapid increase in demand of acute care and decrease or delay of surgical procedures have affected the health data set gathered by CIHI for the year 2020 to 2023. These data sets, compared to previous years, show lower than average patient volumes, physician billings, etc. which affected our forecast anticipated future net new need.

Using the skewed health data due to aforementioned reasons, affected the validity of our 10-year forecast significantly resulting in almost 22% decrease in net new to current roster FTE ratio.

For the past two fiscal years physicians' workforce forecast AHS had decided to replace the 2020-21 HPG data (the most affected health data by COVID-19 Pandemic) with its prior year (2019-20)[25]. This year the real 2020-21 HPG data was used. As a result, the we had a slight dip in Net New FTE faced comparing to prior years. Moving forward we will continue the forecasting practice as usual.

[25] Each year's forecast uses the prior year's health data, and so forth. For example, 2023-24 (current fiscal year's PWP forecast) would have used 2022-23 health data. Last PWP forecast (2021-22) was utilizing 2019-20 (before COVID-19 Pandemic) health data.

Appendix C - 10 Year Forecast

PROVINCE-WIDE SUMMARY REPORT: By Specialty By Variable, - 10 Year Totals											
SPECIALTY_NAME (RCPSC)	ROSTER		Results - Supply					SUBTOTALs		TOTAL	ROSTER
	Opening FTE Balance	Need	Gender Shift	NIPM /RFA	Separations	Subtotal	Planning	Replacement Recruitment	Need	10-Year Recruitment	Ending FTE Balance
Anesthesiology	291.66	73.62	47.23	18.54	73.75	139.52	35.30	139.52	108.92	248.44	400.58
Cancer	81.31	17.49	9.54	7.68	31.62	48.83	0.00	48.83	17.49	66.32	98.80
Diagnostic Imaging	396.05	117.43	34.02	25.21	102.94	162.16	46.21	162.16	163.64	325.80	559.69
Emergency Medicine	582.91	163.83	83.36	37.57	118.63	239.55	7.65	239.55	171.48	411.03	754.39
Lab Medicine & Pathology	215.57	46.57	13.46	15.34	76.14	104.93	10.03	104.93	56.60	161.53	272.17
Medicine	999.27	226.27	130.86	80.04	309.30	520.20	43.25	520.20	269.52	789.71	1,268.79
Medicine - Pediatric	446.39	153.35	48.73	34.28	145.40	228.42	24.72	228.42	178.07	406.49	624.46
Obstetrics & Gynecology	198.90	34.05	25.00	13.80	58.11	96.91	0.49	96.91	34.54	131.45	233.44
Psychiatry	535.36	218.39	36.01	35.68	171.54	243.24	29.28	243.24	247.67	490.91	783.03
Public Health	24.20	5.14	3.64	1.65	6.24	11.53	0.00	11.53	5.14	16.67	29.34
Surgery	531.36	118.50	58.89	40.66	184.89	284.45	16.34	284.45	134.84	419.29	666.20
Surgery - Pediatric	26.82	3.24	4.31	2.52	12.08	18.91	0.20	18.91	3.44	22.35	30.26
ALL SPECIALTIES	4,329.80	1,177.88	495.03	312.97	1,290.65	2,098.65	213.47	2,098.65	1,391.35	3,490.00	5,721.15