

Optometrists

and Dispensing

The Optometrist and Dispensing Optician Workforce in Aotearoa New Zealand 2023 Te Rāngaimahi Mātai Whatu, Rato Mōhiti i Aotearoa 2023





The Optometrist and Dispensing Optician Workforce in Aotearoa New Zealand **2023**

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Kia whakatōmuri te haere whakamua

I walk backwards into the future with my eyes fixed on my past.

Foreword | He kupu takamua

Herein we present our second Workforce Report, for the year ended 31 March 2023. This report is designed to be read alongside our Annual Report 2023, which is available on our website.

In contrast to the Annual Report, the Workforce Report details the demographics and issues facing the professions of optometry and dispensing opticianry. This is to address Goal 3 of the Board's 2019 – 2022 Strategic Goal: "To be future focussed by analysing workforce demands and public needs". This will further support the Board's next strategic plan, 2023 – 2025 Strategic Plan Goal 3: "Support the development of a workforce which responds to public needs."

As COVID-19 control measures recede, the workforce is returning to normalcy. To understand the breadth of services that optometrists provide nationwide, this year's survey included questions about their involvement in 'top of scope' care (or 'full scope' care) and the nature of their working relationships within multidisciplinary clinical teams that enable these services. The data will guide the Optometrists and Dispensing Opticians Board of Aotearoa New Zealand (ODOB, the Board) and its eye healthcare partners, policyand decision-makers in identifying existing service areas, and potential future contributions of the optometry and dispensing opticianry workforce to better serve Aotearoa New Zealand New Zealand (NZ).

I would once again like to thank all the health practitioners who completed the survey, especially those who left comments, as this provides valuable feedback to ODOB and is an important contribution to understanding the demographics, work practices, and distribution of health practitioners in NZ. With closer and more regular communication between ODOB and the practitioners it regulates, this will help ensure that New Zealanders can continue to receive the best eye healthcare.

A special thanks to Dr Phil Turnbull, our Advisor and Researcher, for his work on this report. His assistance and expertise have yet again been invaluable this year.

We invite you to share your insights and suggestions for future editions of this report by contacting us at (**registrar@odob.health.nz**), including what information you would like to see presented in future versions of the report.

We trust that this annual workforce survey will provide valuable insights and serve as a useful data source for various organisations and individuals.

Nā māua noa, nā



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Kristine Hammond Chair



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Elmarie Stander Chief Executive and Registrar

Introduction | He kupu whakataki

This is the second ODOB workforce report, after the inaugural 2022 report was published last year. As usual within each reporting year, all practitioners applying or renewing their registration during March 2022 were invited to take part, and we received 1251 responses from a total of 1295 registered practitioners as of 31 March 2023 (96.6 per cent, %).

This response rate is much higher than last year, in part due to a more streamlined process on the website and as the invitation was extended to all registered practitioners, rather than just those applying for an annual practising certificate (APC). The number of comments on the survey was also high, with 862 freetext submissions made alongside the survey responses. These comments have all been read and collated into themes. These comments help provide detail to the issues, both positive and negative, that either or both professions are experiencing. The high response rate and level of feedback provide confidence in the data presented in this report.

This data collection is additional to what we use to maintain registration, and includes additional detailed employment information, practitioner outlook, and this year a more detailed picture of those practicing at the 'top of scope'. This report can be read alongside the ODOB annual report, which is published for 2023 and earlier years on the ODOB website.

The aim is to continue to repeat the survey annually, to monitor changes or trends in the workforce, and to have data available to ODOB and other agencies to enable them to make decisions that better reflect the desires and needs of the workforce and the population of NZ.

As with any survey, the data is limited by the responses received and care should be taken when using this data as the responses and numbers are unlikely to be exact and may have changed since the survey date. However, as the data grows each year, it will give greater confidence in the representativeness of the data, and particularly any trends that emerge.



Facts at a glance | He tirohanga ki ngā meka

- We had high response rates from both optometrists (97.5%) and dispensing opticians (DOs, 92.4%), which gives us very good representation of the workforce and the factors affecting each profession.
- Māori optometric health practitioners are significantly underrepresented compared to the population, with Māori ethnicity reported in just 2.1% of the responses.
- The net number of optometrists increased by 38 in the 2022/2023 period, while the number of dispensing opticians decreased by 5.
- The median age of both professions is relatively young, with the median DO age 46.9 years and the median optometrist 39.3 years old.
- The replacement rate of optometrists entering versus leaving the profession is at least that of expected population growth over the next ten years, however the number of DOs per capita reduced this year compared to last year.

- There is a higher number of female practitioners in both professions, with females making up 76.4% of DOs and 61.3% of optometrists, both up slightly from 2022.
- Using the previous district health board (DHB) distribution, South Canterbury has seen the largest increase in optometrists in 2022, with 40.1 practitioners per 100,000. Auckland remains oversaturated with optometrists at 33.2, and the Wairarapa (1.7), Tairāwhiti (5.8), and the Waikato (6.4) are the three areas with poorest optometrist coverage.
- In contrast, the misdistribution of DOs has improved since 2022. DOs are most densely concentrated in Tairāwhiti (9.6), with the most poorly served region being Counties Manukau (1.5) with a ratio of 6.5x fewer DOs. Three regions have no DO coverage at the time of the survey (Whanganui, Wairarapa, and the West Coast), which is of concern.
- 32.2% of optometrists and 21.6% of DOs feel overworked, which was correlated with feeling inadequately rewarded in their job.



Key statistics for 2022-2023 | Ngā tatauranga matua mō 2022-2023

Optometrist		Dispensing Optician
1070 —	Registered practitioners	225
910 —	Active practitioners	187
69 —	New practitioner registrations	9
61.3% –	— Proportion — female	- 76.5%
39.3 yrs –	— Median age —	- 46.9yrs
20.5 —	Practitioners per 100,000 ¹	— 4.3
32.5 hrs –	_ Average weekly workload (hours)	- 34.2 hrs

¹ Based on Stats NZ resident population estimate of 5,199,100 as at 31 March 2023 https://www.stats.govt.nz/information-releases/national-population-estimates-at-31-march-2023/

Key terms and definitions | Ngā kupu matua me ngā whakamahukitanga

The Board In this report, the Board refers to the Optometrists and Dispensing Opticians Board (ODOB). The ODOB is the authority that oversees the optometrist and dispensing optician professions in NZ. It has the role of protecting the health and safety of the public by ensuring optometrists and dispensing opticians are competent and fit to practise. It sets and maintains standards for optometrists and dispensing opticians, and makes sure that practitioners maintain high standards of care. The Board is a statutory body, empowered by The Health Practitioners Competence Assurance Act 2003 (HPCA Act).

Dispensing optician (DO) A dispensing optician is a health practitioner with a recognised qualification that is registered with the ODOB under the dispensing optician scope of practice. Dispensing opticians interpret prescriptions for glasses and contact lenses, give advice to the patient in selecting spectacle lenses and frames (including their fitting). They can also teach how to use contact lenses and low vision aids and dispense a prescribed optical appliance. It is illegal for a person to call themselves a dispensing optician unless they are registered with the ODOB. Dispensing opticians are required to regularly prove their individual or their individual competence to be allowed to keep practising.

Locum practitioner A health practitioner registered with ODOB who may work between multiple practices without a regular schedule. They often have flexibility to move around the country and cover vacancies (e.g., due to illness) at short notice. Both optometrists and dispensing opticians can work as locums, and like all registered practitioners they are required to regularly prove their individual competence to be allowed to keep practising, even if their work is less frequent.

Optical assistant A person who works within an optometry practice, but in a role which is not registerable, can have any job title they wish. Similar unregistered job titles used in the industry include optician, sales assistant, or sales consultant. People in these roles may assist with ordering optical appliances, managing the practice, or help perform certain ophthalmic tests under supervision of an optometrists or dispensing optican.

Optometrist An optometrist is a health practitioner with recognised qualifications registered with the ODOB, under either the Optometrist or Specialist optometrist scope of practice. An optometrist provides evidencebased comprehensive eye health and vision care in a professional, culturally safe, and ethical manner, in accordance with the HPCA Act. Optometrists conduct eye examinations, diagnose eye disease or other conditions, and prescribe optical appliances or medications for defects in sight or diseases of the eyes. An optometrist must be registered with the ODOB and hold a current practising certificate to practise in NZ. Optometrists are required to regularly prove his or her competence to us to be allowed to keep practising.

Abbreviations | Kupu tīporo

ABDO	Association of British Dispensing Opticians
APC	Annual practising certificate
CPD	Continuing professional development
DHB	District health board
DO	Dispensing optician
FBDO	Fellow of British dispensing opticians
IQR	Interquartile range (25-75th percentile)
NZ	Aotearoa New Zealand
ODOB	Optometrists and Dispensing Opticians Board
RANZCO	Royal Australian and New Zealand College of Optometrists

Notes | Kupu tīpoka

- Percentages are reported to one decimal place.
- Use of the word 'significant' for describing differences or change refers to statistical significance at the level of p < 0.05.
- Some questions allowed multiple responses, and some categories with low response rates (< 5) are omitted from reporting to preserve anonymity, so percentages may not total 100%.
- Ethnicity and gender are self-reported, and therefore represent the identification of the individuals.
- The survey was completed by practitioners who applied for registration by 31 March 2023. Therefore, the data may not reflect the profession in its entirety and numerical values may not be exact.
- There were responses from a wide range or regions, ages, ethnicities, and working styles, so proportional answers and themes should reasonably reflect both optometric professions.

Te Rāngaimahi Mātai Whatu, g Rato Mohiti i Aotearoa **2023**

Number of practitioners | Te nui o ngā mātanga

At the close of the survey on 31 March 2023, there were a total of 1295 practitioners registered with ODOB, comprising of 1070 (82.6%) optometrists and 225 (17.4%) DOs. Of these registered practitioners, 910 optometrists (85.0%) and 187 DOs (83.1%) were practising (Figure 1).

While the details are not recorded by ODOB, practitioners may choose to go non-practising (but maintain registration) whenever they want to take a break from practising. Examples include undertaking further education, taking parental leave, or going on an extended holiday. While under non-practising status, the requirement for maintaining competency during this period can be reduced and they must not see patients until ODOB approves their return to practising status. Depending on the duration of non-practising status, additional education or supervision requirements may be required to ensure a safe return. The proportion of registered practitioners who are non-practising has remained relativity constant over the previous years (mean of 16.9% since 2017) and does not appear to have been impacted by the response to the COVID-19 pandemic.

Registered optometrists have been gradually increasing over the previous seven years, with a mean of 34.7 practitioners being added to the register per year since 2017. In the year ending March 2023, there were 69 new optometrists added to the register during 2022/23, but a net increase of 38, with 31 removed from the register



Figure 1 – Number of practitioners registered under each profession. Those actively practising are in bold, with the desaturated component on the top of each bar indicating the number of non-practising but registered practitioners. Data is from ODOB annual reports, available at https://odob.health.nz.



Figure 2 – The forecasted number of optometrists per capita is expected to increase over the next ten years, while the number of DOs per capita is expected to remain constant.

in the same period. DOs have seen a much more modest increase in registered practitioner growth over the same period, with a mean of 2.2 practitioners added per year since 2017. In the past year, there were 9 new practitioners added to the DO register, but 14 withdrew from the register. This means there has been a net loss in DO numbers over the two most recent years of 12 in 2022, and a further 5 in 2023. There were several comments made in the survey on the value of maintaining registration as a DO, against the additional costs of regulation such as APCs and obtaining continuing education credits at conferences. These comments were particularly notable this year, with many references made to the additional cost of living expenses. More details on the entry pathways used by DOs and optometrists to register in NZ is provided in Appendix 1.

At 17.7 optometrists per 100,000 NZ population, the number of optometrists per capita in NZ is now above the average of 15.6 for high income countries², and 17.0 in Canada,³ which has a similar scope of practice and healthcare model. It is lower than Australia, which at 22.4 has been cited as having an oversupply of optometrists, and forecast to worsen.⁴

A leading cause of this oversupply is pressure from corporate optometry chains,⁵ which are calling for higher levels of graduating optometrists in both Australia and NZ to fill vacancies.⁶ However, data from our report suggest that difficulties in filling these roles are not due to a shortage of practitioners, but rather concerns from practitioners about the corporate working environment, leading to hesitancy in taking available positions at these practices. This is further discussed in in the section *Issues faced by the workforce*.

Te Whatu Ora also conducts modelling of workforce numbers, based on the historical movements in and out of each profession (tracked by individual practitioners), against forecasted population growth (Figure 2). Consistent with the growth seen in the past year, their modelling predicts that the current level of practitioners entering the optometry profession is at least sufficient to meet demand for the next 10 years, with a slight in increase in the number of practitioners per 100,000 population from 17.7 in 2023, to 21.4 in 2033. While DO numbers are harder to model, owing to the smaller size of the profession, the number of DOs per 100,000 population is predicted to remain consistent, at 3.6 in 2023 through to 2033.

² National indicators. (2021, February 15). The International Agency for the Prevention of Blindness.

https://www.iapb.org/learn/vision-atlas/solutions/national-indicators/

³ Shah, T., Milosavljevic, S. & Bath, B. Geographic availability to optometry services across Canada: mapping distribution, need and self-reported use. BMC Health Serv Res 20, 639 (2020).

⁴ https://mivision.com.au/2021/04/optometry-supply-likely-to-out-strip-demand-study-shows/

⁵ Specsavers and Optometry Australia at odds over supply of optometry graduates - Insight (insightnews.com.au)

⁶ https://www.nzoptics.co.nz/articles/archive/call-for-more-grads-remote-care-to-combat-optom-shortage/#



Gender and age | Ira me te pakeketanga

Both professions are predominantly female, with 798 (63.8%) respondents reporting their gender as female and 452 (36.1%) as male. This gender imbalance was more pronounced in DOs, with 76.4% identifying as female compared to 61.3% of optometrists.

These numbers represent a slight increase in the proportion of female practitioners from 2022, consistent with University of Auckland Bachelor of Optometry graduates being predominantly female.

Stats NZ estimates that on 31 March 2023, 50.3% of the population was female⁷, so there is considerable feminisation of both professions. The high proportion of females in the optometric professions may reflect the family-friendly or lifestyle advantages these professions offer. This includes the ability to graduate as a fully independent practitioner without extended postgraduate training, and the availability and ease of maintaining part-time work.⁸ The move towards feminisation of health professions is common both nationally and internationally, but despite this women typically have lower wages, work fewer hours, and therefore are awarded fewer promotions to senior and leadership positions.^{9,10} There is some evidence of this in the optometric professions, with females working on average 12.9% fewer hours per week, and significantly more females reporting to be an employee versus a practice owner (see *Work type and workloads* below for more details).

⁷ https://www.stats.govt.nz/information-releases/national-population-estimates-at-31-march-2023/

⁸ ALobaid AM, Gosling CM, Khasawneh E, McKenna L, Williams B. Challenges Faced by Female Healthcare Professionals in the Workforce: A Scoping Review. J Multidiscip Healthc. 2020 Aug 5;13:681-691. https://doi.org/10.2147/JMDH.S254922

⁹ https://www.who.int/activities/value-gender-and-equity-in-the-global-health-workforce

¹⁰ Shannon, G., Minckas, N., Tan, D. et al. Feminisation of the health workforce and wage conditions of health professions: an exploratory analysis. Hum Resour Health 17, 72 (2019). https://doi.org/10.1186/s12960-019-0406-0

The median age of DOs is 46.9 years, significantly older than the median age of optometrists at 39.3 years. However, this age gap has narrowed slightly since 2022, due to an increase in the median age among optometrists and a decrease among DOs.

Gender balance varies across age groups within each profession. In the DO profession, females

are the majority in all age groups except for 75-80 years old. For optometrists, females are more numerous in age groups below 55 years, while males dominate in age groups above 55. This age threshold for female predominance among optometrists is likely to rise, given the significantly higher number of females entering the profession compared to males.



Figure 3 – The distribution of gender by age bands for the two professions. Both professions are predominantly female, however there are more male optometrists over the age of 55 years old.

Ethnicity | Mātāwaka

Most survey responses included ethnicity information, with just 53 (4.2%) preferring to not answer this question. Most listed one ethnicity, with 89 (7.1%) reporting two or more ethnicities. This year there were 44 unique ethnicities reported, up from 40 in 2022.

To maintain anonymity, and to facilitate comparisons between other agencies, each reported ethnicity was collated into higher level (Level 1) categories using the Stats NZ Ethnicity New Zealand Standard Classification 2005 (Version 2.1.0).¹¹ These categories are Māori, NZ European, Pacific Peoples (note the preferred term *Pasifika* is used in this report), Asian, and Middle Eastern/Latin America/Africa (MELAA), and Other. To show the variation in numbers that could be attributable to sampling bias, the proportion of each profession that did chose not to answer this question is also reported (Figure 4). For both professions, European was the most common ethnicity (DO: 78.5%, Optometry: 45.0%), with Asian the second most frequent (DO: 15.0%, Optometry: 42.4%). However, there was a significant difference in the ethnicity distributions between the professions, with a higher number of practitioners with European ethnicity reported in the DO profession, and a higher number of practitioners with Asian ethnicity in the optometry profession.



Figure 4 – Ethnicity of the two optometric professions, grouped into Stats NZ Level 1 categories.

¹¹ http://aria.stats.govt.nz/aria/#ClassificationView:uri=http://stats.govt.nz/cms/ClassificationVersion/YVqOcFHSlguKkT17

Māori ethnicity was reported in 2.2% of optometrist responses, (1.9% in 2022), and 2.5% of DOs (2.7% in 2022). In the 2018 Census, 16.5% of the population identified as Māori, so this means that Māori are significantly underrepresented in both optometric professions. This is also true of Pasifika, which made up 8% of the population in 2018, but only 1.2% of the optometric professions. Asian ethnicity is representative in the DO profession (15.0%, versus 15.1% of the population), but the proportion of Asian optometrists is significantly higher that the proportion of Asians in the NZ population (43.9% of optometrists, versus 15.1% of population).

Note that variation in self-reported ethnicity is expected when comparing between years as people discover more about their heritage and identity. Despite some small differences in the percentages, this year was not significantly different from that seen in 2022. While there may be trends emerging, with just 2 years of data, it is probably too early to tell if there is a change in the ethnic distribution of the professions over time, and data will have to be monitored over a longer period.



Geographic distribution | Tuari matawhenua

Using Te Whatu Ora's 2023 optometrist and DO workforce data on the district health board (DHB)¹² population data for all ages estimated at June 2023 (with a NZ population of 5,223,100), there is a mean of 27,931 (+5.2% from 2022) population per practising DO, and 5740 (-3.9% from 2022) population per practising optometrist.

Both DOs and optometrists are spread throughout the county, and while there are patterns of optometrists and DOs working in the same locations, it is clear that not all areas that have an optometrist, also have a DO (Figure 5).

Using Te Whatu Ora 2023 workforce data (linked to individual practitioner's Health Provider Index,

HPI), a total of 187 DOs and 910 optometrists could be mapped to former DHB areas (Figure 6) to provide a more granular level of geographical density information, than the four Te Whatu Ora regions (Northern, Te Manawa Taki, Central, and Te Waipounamu). As was seen in 2022, there is significant variation in the per capita population

¹² The Pae Ora Act 2022 came into effect on 1 July 2022. Prior reporting was based on DHBs and was used for this report.

Figure 6 – Density of practitioners per 100,000 population. Darker hexagons indicate higher numbers. White hexagons are regions where no practitioners were located at the time of the survey.

that each practitioner serves within each of the former DHBs, with darker hexagons representing a higher number of practitioners. Since 2022, South Canterbury has seen the largest increase in optometrists, and now has 40.1 practitioners per 100,000, although it is possible that many serve the wider Canterbury region, which only has 12.3 overall. Auckland remains oversaturated with optometrists, at 33.2, and this year there were specific comments on the difficulty of finding work in the area, and wage stagnation as a result. The Wairarapa (1.7), Tairāwhiti (5.8), and the Waikato (6.4) are the three areas with poorest optometrist coverage. The ratio between the most well served area and the least well served area was 20.5x, which represents a higher level of geographic imbalance compared to just a year ago. Another metric to evaluate geographic

imbalance is to compare the number of regions above and below the national mean of 17.7 optometrists per 100,000 population. Ideally, ten of the DHB regions would be above, and ten below, indicating the median is similar to the mean. However, using this metric, just three regions (South Canterbury, Auckland, and Nelson Marlborough) are above the national average, and 17 regions have fewer optometrists than the national average. As stated previously, with the overall number of optometrists per capita slightly higher than countries with similar scopes of practice, such high variation in practitioner distribution leads to unequal access to eye health care, and greatly increases the risk of worsening existing inequities.13

¹³ Campbell, J., Buchan, J., Cometto, G., David, B., Dussault, G., Fogstad, H., Fronteira, I., Lozano, R., Nyonator, F., Pablos-Méndez, A., Quain, E. E., Starrs, A., & Tangcharoensathien, V. (2013). Human resources for health and universal health coverage: fostering equity and effective coverage. Bulletin of the World Health Organization, 91(11), 853–863.

In contrast, the misdistribution of DOs has improved from last year. DOs are most densely concentrated in Tairāwhiti (9.6 DOs per 100,000 population), and the most poorly served region is Counties Manukau (1.5), with a ratio of 6.5x fewer DOs. However, given the proximity of the Counties Manukau region to other Auckland regions, there may be more movement into the region for work. The imbalance is not as severe as that seen with optometrists; just six regions have a higher density of DOs compared to the national mean of 3.6, with 14 regions below. However, of concern are the three regions which have no DO coverage at the time of the survey (Whanganui, Wairarapa, and the West Coast). To our knowledge, an ideal ratio of dispensing opticians to the population has not been estimated, but the absence of DOs in these regions is likely to disadvantage these populations.

Note that data in this section is sensitive to the number of practitioners who responded to the survey, the number of practicing locations that could be accurately mapped, and the number of practitioners that could not be mapped to a single location (like a locum practitioner). These biases would have the greatest impact in the DHBs with fewer practitioners and would tend to lead to underestimates of practitioners per capita.

Qualifications | Ngā tohu

Since the 2022 Workforce Report, the ODOB has invested time correcting and updating the practitioner registration database to improve consistency in the recording of qualifications. As a result, this may lead to variation compared to last year, but with a higher certainty and number of qualifications being able to be mapped this year. However, this is an ongoing project and will be further improved next year.

Information on the country of origin of qualifications was available from 1249 of 1251 (99.8%) of respondents. 82.0% of optometrists have qualifications obtained domestically (i.e., The University of Auckland). 18.0% of the qualifications held by optometrists were obtained internationally, with the largest source being Australia at 10.1%. In contrast, the majority of DO qualifications (77.3%) were obtained from Australia, with 10.4% being obtained in NZ through the assessment of international graduates and the NZ training pathway for one of the Australasian providers. The United Kingdom was also a common country of origin, representing 11.8% of DO qualifications and 7.5% of optometrist qualifications.

Figure 7 – The issuing country of qualifications held by practitioners. Note that this is all qualifications, and not just those required for registration with this Board.

In total there were 1635 qualifications listed. 27.4% of practitioners reported two qualifications (1.9% of DOs and 25.5% of optometrists), and 5.6% (all optometrists) reported three. As such, the percentages listed do not represent the proportion of all qualifications, but instead are the proportion of practitioners with each qualification type.

In terms of level of qualification, 80.7% of DOs hold a level 4 certificate in optical dispensing, with a further 15.5% having completed the Association of British Dispensing Opticians (ABDO) training programme. The ABDO training programme awards graduates a Level 6 Diploma in Ophthalmic Dispensing¹⁴, and graduates are awarded the Fellowship of British Dispensing Opticians (FBDO). A smaller number of DOs (5.8%) obtained registration using the New Zealand based ADONZ OptiBlocks pathway, which assesses international graduates for eligibility for registration (under section 15(2) of the HPCA Act).

Most optometrists (>94%) hold at least bachelor's level qualification, many with honours. This aligns with most practitioners being domestically trained at the University of Auckland, which offers a Bachelor of Optometry (Honours) programme. 36.0% of optometrists also hold a postgraduate certificate or diploma, primarily for ocular therapeutics or glaucoma, and 9.7% have a master's degree. 0.6% have a doctorate level degree, which includes both professional doctorates (e.g., Doctor of Optometry) and PhD (Doctor of Philosophy).

14 Mapped at Level 6 on the Regulated Qualifications Framework (RQF) (England/Northern Ireland), as recognised by the General Optical Council (GOC). Level 6 on the RQF is equivalent to Level 6 of the European Qualifications Framework (EQF). Level 6 on the EQF is equivalent to the Level 7 on the New Zealand Qualifications Framework (NZQF). (https://www.nzqa.govt.nz/international/recognition-overseas/qual-arrangements/european-union/).

Issues faced by the workforce | Ngā take e pā ana ki te rāngai mahi

This section discusses specific questions that were asked during the Workforce survey to better understand the mood, issues, and outlook of the professions (Figure 9). Each question also had an optional free-form text entry, where practitioners could provide additional details. These comments have all been read and are summarised as themes to preserve anonymity.

By far the biggest concern to practitioners was the influence of "corporate optometry" (versus independently owned practices) on the professions, and this theme was present across many different questions.

Despite very few practitioners working more than a 40-hour week, 21.6% of DOs and 32.2% of optometrists reported feeling overworked, significantly higher than last year. Based on last year's results, this year we asked additional questions to better understand the causes. While the majority of both DOs (64.9%) and optometrists (64.3%) feel adequately rewarded for the work they do, a large proportion of both DOs (23.1%) and optometrists (26.8%) feel inadequately rewarded. These practitioners who reported feeling inadequately rewarded were significantly more likely to report feeling overworked, and this imbalance in effort and reward significantly increases the risk of personal burnout.¹⁵

The comments make clear that the systems for rewarding or assessing job performance for these practitioners' experiencing burnout are not aligned with the healthcare services that they are offering. Particularly from optometrists, there were many comments on high patient volumes, testing times being too short to adequately

Figure 9 – Responses to the workforce questions by profession. Note that responses of 'Not relevant' have been maintained so that percentages relate to the overall profession, rather than being the percentage who found a particular question relevant.

15 Bakker, A.B., Killmer, C.H., Siegrist, J. and Schaufeli, W.B. (2000), Effort-reward imbalance and burnout among nurses. Journal of Advanced Nursing, 31: 884-891. https://doi.org/10.1046/j.1365-2648.2000.01361.x review test results, excessive measurement and reporting on sales-based performance indices, and a lack of time for administrative tasks (which included writing referrals), which necessitated additional unpaid work. At the most extreme scale, there were comments from practitioners who stated they felt powerless in needing to uphold clinical standards whilst maintaining employment-based performance measures, which are determined by managers who are not held accountable for poor patient care.

The feedback provided, along with the data on working hours, collectively suggests that the sense of burnout reported by nearly one-third of the workforce is less a consequence of excessive hours, and more the result of unhealthy working conditions. This sentiment appears to be known in the profession, with numerous practitioners expressing a reluctance to work within corporate settings.

Burnout has been identified as a common issue in Australian optometrists, with risk factors including being a younger practitioner, and related to the pressures of offering healthcare in a "corporate environment".¹⁶ Given the demographic that corporate practices target with recruitment, there may need to be efforts made to ensure that the working environment is supportive of their employees, to ensure that practitioners are best placed to provide optimal care for their patients.

Both professions feel they have adequate room to practice freely (85.9%), with just 6.5% feeling restricted. Comments here were regarding restrictions placed by some practices on what services and products could be offered, as well as time constraints placed on appointments. There were many comments approving of the recent work by the Board to expand optometric scope of practice, although several noted that they were comfortable operating well within the boundaries of the existing scope. As the scope continues to expand, it is likely that the optometry profession will increasingly start to develop areas of sub-speciality, which may require an increased level of within-profession referrals to ensure patients continue to receive optimal outcomes.

Both professions maintain an optimistic view of the future (72.2% optimistic vs 15.4% pessimistic). While many comments were positive about the direction the profession was heading overall, by far the most common negative comment theme was criticism of the influence that corporate optometry has over the profession. There were concerns primarily from optometrists around the public perception of the profession, citing the negative impact of marketing the retail aspects of optometry, such as discounted eve exams, and attention on sales of optical appliances rather than eye healthcare. Secondary themes included a perceived pay ceiling and stagnation of salaries across both professions, which was not adjusting to the increased cost of living, and related, the increased amount of bureaucracy and administration involved in practicing.

Like last year, almost a quarter of respondents plan to retire within 10 years, although based on previous years' numbers, significantly more practitioners will enter the workforce during this period. As highlighted in the section *Numbers of practitioners*, this means that there will be increased levels of practitioners per capita in the future. Related to this, there were a few comments on the difficulty in finding jobs, mostly related to finding work in Auckland specifically, or due to a preference to work at independent practices. However, like last year there is only a relatively small number of practitioners who struggle to find work (2.6%).

¹⁶ Bentley SA, Black A, Khawaja N, Fylan F, Griffiths AM, Wood JM. The mental health and wellbeing survey of Australian optometrists. Ophthalmic Physiol Opt. 2021 Jul;41(4):798-807. doi: 10.1111/opo.12823. Epub 2021 Apr 20. PMID: 33877691.

Issues faced by employers | Ngā take e pā ana ki ngā kaitukumahi

The survey also asked question related to employing DOs and optometrists, as practice ownership is a common business model in the profession with 20.2% of DOs and 24.6% of optometrists owning a practice.

50.8% of practice owners said they had difficulty in recruiting optometrists and DOs when required, compared to 27.3% who said they did not. Most comments related to the difficulty of recruiting staff with any optical experience, let alone a qualified DO, and there were many comments on the difficulties of attracting both optometrists and DOs to the regions. However, only a small number (3.4%) of employers have needed to rely on overseas based practitioners. This year many more employers aimed to employ DOs (49.8%), with several alternatively employing an 'optical assistant' (non-regulated workforce), then providing support for training as a DO as part of their employment. While there were some comments on the wider knowledge base of a DO compared to a trained 'optical assistant', there were also comments on the value of hiring a DO against the added cost and complexity of maintaining registration, versus that of a well-trained 'optical assistant'.

Figure 10 – Response breakdown to employer specific questions.

¹¹ https://www.tewhatuora.govt.nz/whats-happening/what-toexpect/nz-health-plan/#our-six-priority-actions

Work type and workloads | Ngā momo mahi me te taumaha o ngā mahi

Most practitioners work an average of close to 40 hours per week, with smaller peaks at 32 and 20 hours, reflective of the 33.7% of DOs and 39.4% of optometrists who work part-time (< 0.8FTE). This part time status lowers the mean weekly work hours by a similar amount for both optometrists (32.5 hours) and DOs (34.2 hours).

This year there are fewer practitioners working high weekly hours, with just 1.1% of optometrists and < 0.5% of DOs working more than 50 hours per week. There also is a significant trend of decreasing weekly optometrist work hours with increasing age (1 less hour worked per ~6.4 years of age), but a similar trend was not present for DOs. Practitioners who own a practice work on average 5.5 more hours per week, which is more than double the additional hours from last year.

At the time of the survey, 91.4% of DOs were working in clinical practice, with 3.9% of the DO workforce on leave. Alternate or additional roles that DOs were involved in include administration (13.9%), teaching (3.9%), and research (1.9%, Figure 11). A similarly high 93.6% of optometrists were currently working in clinical practice, with 3.0% on leave. Alternative or additional roles for optometrists included administration (3.9%, significantly lower than DOs), teaching (4.8%), and research (3.6%).

74% of DOs are employees, and 20.2% of DOs own a practice (Figure 12). Working as a locum DO continues to be uncommon, making up less than 1% of the workforce. In contrast, fewer optometrists work as employees (58.8%),

and one in five DOs owning a practice.

and it is more common for optometrists to own a practice (24.6%). The number of locum optometrists has significantly increased from last year (2022: 8.3%) to 12.3%, and this may represent a more mobile workforce, although the survey does not capture locum movements around the country.

10.1% of optometrists work more than one job, significantly more than the 4.8% of DOs, and practitioners work at this second job for a mean of 11.5 hours per week. Note that this is likely an underrepresentation of secondary work, as respondents may not have considered external roles relevant to this survey. 97.2% of DOs work in optometry practices, with 2.1% in ophthalmology clinics. Optometrists work in a wider range of environments, with 85.5% in optometry practice, 4.5% in private ophthalmology clinics, 6.1% in the public sector, and 2% working alongside other healthcare practitioners such as general medical practitioners or pharmacists.

This year additional questions were asked to optometrists about what, if any, expanded care beyond traditional primary care optometry services they provided. The most common was cataract pre and post-operative care (41.4%), uveitis management (31.6%), and refractive surgery pre and post-operative care (28.5%). Running clinics was also quite common, with 24.7% of optometrists running acute clinics, 20.5% offering diabetic screening clinics, 17.8% managing paediatric care (such as patching and pre surgical strabismus assessments), and 14.5% of optometrists running glaucoma clinics (with independent management). Less common were offering medical retina services (other than diabetes) at 8.3%, oculoplastic pre and postoperative care (4.2%), and neuro-ophthalmology clinics (4.0%). As optometrists tend to be more community based than hospitals, by offering these services the profession is helping the objectives of the Te Pae Tata Interim New Zealand Health Plan 2022,¹⁷ and this work should be further encouraged to help reduce eye health inequalities in Aotearoa New Zealand.

There were many comments in the survey about the need for greater public funding to support optometry provided services, to ensure that affordable and timely care is available to all that require it. This sentiment is also supported by the RANZCO Vision 2030 statement, who suggest that increasing funding to optometrists, or better utilising hospital employed optometrists, may help provide eye healthcare to regions.¹⁸ The rationale for increased public funding is clear from the level of expanded care services provided to patients, with 57.7% of these optometrists offer these services privately, consisting of 43.4% provided directly, 12.0% through contracts with ophthalmology, and 2.3% through contracts with general medical practitioners. This compares to just 22.6% of these top of scope services offered through publicly funded contracts with health boards or hospitals, with another 16.2% of the services provided by optometrists directly employed in the public sector.

¹⁷ Te Pae Tata https://www.tewhatuora.govt.nz/whats-happening/what-to-expect/nz-health-plan/

¹⁸ RANZCO Vision 2030 and beyond – Aotearoa New Zealand, available at https://ranzco.edu/home/community-engagement/vision2030-beyond/

Retention in the workforce | Te puri i te hunga mahi

The median registration age is significantly younger for optometrists (median: 23.8 years, IQR: 23.1-26.7) than for DOs (median: 32.7 years, IQR: 28.0-39.8). 89% of new optometrist registrations are under 30 years old, and this is consistent with that of a first career immediately following five years of university study.

In comparison, the median registration age for DOs is 8.9 years older, and 74% of new DO registrations were aged over 30 years old, which suggests that many DOs may switch from alternative previous careers. The median duration of optometrist registration is surprisingly short (median: 13.6, IQR: 5.25-24.3), likely caused by the relatively recent increase in domestic graduate numbers, who have fewer years of clinical experience.

Figure 13 – Box plots of age, years since registration, and age at first NZ registration. Boxes indicate the upper and lower quartiles, and the notch indicates median values. The whiskers indicate the full range of responses. The registration duration for DOs (median: 11.0 IQR 5.10-18.2) is significantly less than optometrists. Taken together, these data show that optometrists enter the workforce at a younger age and stay in the profession for a longer period than DOs. DOs also register over a wider range of ages, but typically at an older age, and just 25% have remained in the profession for longer than 18.2 years.

This is also supported by the workforce data from Te Whatu Ora, which tracks exit rates from the profession. Averaging over the past three years, optometry has had a significantly lower exit rate of 5.2%, compared to 9.3% for DOs. While the highest number of optometrists exit the profession when over 65 years old, consistent with retirement, the peak exit rate for DOs starts slightly earlier from 60 years old, with a many more DOs exiting before the age of 70 compared to optometrists (Figure 14A). While both professions show a small increase in exit rates in those aged under 35 years old, as may be expected with raising families, this exit rate is much higher for DOs than optometrists. In this younger group who exit the profession, optometrists return slightly younger than DOs (Figure 14B).

Figure 14 – The age distribution from those practitioners leaving the workforce (A) and those returning to the workforce (B). Data provided by Te Whatu Ora.

Data sources and tools used in this publication | Ngā puna raraunga me ngā taputapu i whakamahia i tēnei whakaputanga

- The biggest source of information was the responses provided by the optometrists and dispensing opticians of NZ as part of this workforce survey. Thank you to all participants.
- Data on practitioners (optometrists and DOs) entering, returning to, exiting, and forecasting of the workforce was provided by the Te Whatu Ora Workforce modelling team, and we thank the Analytics and Intelligence Unit for this valuable data.
- Ethnicity information was processed using guidelines from the Stats NZ Ethnicity New Zealand Standard Classification 2005 (Version 2.1.0^{19,20})
- Ethnicity population information was obtained from Stats NZ, based on the 2018 Census.²¹
- DHB Population data was obtained from Stats NZ, extrapolated to 30 June 2023.²²
- Population data was based on Stats NZ estimates as of 31 March 2023 (the survey close date).²³
- Data analysis was conducted using R (version 4.3.1)²⁴ and RStudio (version RStudio 2023.06.1²⁵), using the following packages available on CRAN²⁶: lubridate, data.table, dbscan, tidyverse, forcats, data.table, ggthemes, cowplot, ggmap, and DHBins.

20 http://aria.stats.govt.nz/aria/#ClassificationView:uri=http://stats.govt.nz/cms/ClassificationVersion/YVqOcFHSlguKkT17

¹⁹ https://datainfoplus.stats.govt.nz/ltem/nz.govt.stats/7079024d-6231-4fc4-824f-dd8515d33141

²¹ https://www.stats.govt.nz/tools/2018-census-ethnic-group-summaries/

²² https://nzdotstat.stats.govt.nz/wbos/Index.aspx?DataSetCode=TABLECODE7509

²³ https://www.stats.govt.nz/information-releases/national-population-estimates-at-31-march-2023/

²⁴ https://www.r-project.org/

²⁵ https://posit.co/

²⁶ https://cran.r-project.org/web/packages/

Representativeness and limitations of the survey data | Whakakanohitanga me ngā herenga o ngā raraunga o te patapatai

The response rate this year (96.6%) was much higher than last year (83.8%), which gives us good confidence in the representativeness of the survey responses. However, as not all practitioners completed the survey, it is possible that this would introduce a sampling bias, although given the number of missing responses, this would be unlikely to significantly vary the main survey outcomes.

It is acknowledged that some of the questions required a response, even when not appropriate. A key example of this was in the employer-only questions. However, this was addressed during analysis by cross-referencing practice owners, and removing those who did not list their employment as an owner.

With the low number of non-NZ European or Asian practitioners, we cannot conduct robust analysis of ethnicity distribution across the country and workforce roles. With acknowledgement of underrepresentation of Māori and Pasifika within the eye healthcare professions, and the barriers that this introduces, we intend to continue to monitor for improvements in this area. Another potential issue is the low absolute number of responses from practitioners in less populated DHB areas, which can make analysis sensitive to even a single missing response. This can be exacerbated if the area is more reliant on locum practitioners, who would not be mapped to the area. Some of this can be managed by ensuring that practitioners update their home and work address with the Board whenever they change. Furthermore, full time equivalence was not considered, as it could change with sufficient demand.

Concluding remarks | He kupu whakatepe

In providing the results from the 2023 ODOB workforce survey, we aim to furnish insights into the current state of the optometric professions.

The survey's robust response rate, representing practitioners nationwide, highlights a diversity of practice modalities, and a maturation of the professions.

The shift toward medical optometry is clear, with an increasing number of practitioners extending their services to areas traditionally within the purview of specialist medical care. However, given that optometry largely operates within a privately funded framework, there is a pressing need to address equitable access to these expanded services. One option could be to consider a reallocation of public funds to support more community-based optometric care, as this would further reduce the burden on public hospitals and provide care closer to home and whānau.

Like last year, both optometric professions under-represent Māori and Pasifika. While addressing this challenge is complex, one option is to proactively serve and act as role models in these communities so that in the longer term, the increased familiarity with the services and benefits offered by optometrists and DOs can help direct career choices. This would be best done by ensuring equitable care, ensuring that everyone is seeing the best they can, for as long as they can. This may require a rethink of how optometric services are provided to these underrepresented communities, remembering that equitable care may not be possible by sitting in your chair. The workforce is increasingly female, with an age distribution skewed towards younger practitioners. There is sufficient growth in practitioner numbers to remain consistent with population growth for DOs, and to provide an increase in optometric coverage per capita over the next ten years. However, supply issues remain a problem in the regions, perhaps worsening from last year, with metro areas like Auckland oversupplied by optometrists. Regional practitioners have more opportunity to practise at 'top of scope', and perhaps the increasingly medical scope of practice will attract more graduates who can be enticed out of the main centres to provide care to those who need it most. Public funding may help assist in these situations as well, helping to subsidise the cost of luring talent.

A significant concern raised from the survey was the impact that "corporate optometry" is having on the profession. The emphasis on retail objectives and sales performance conflicts with the ethical, clinical, and cultural responsibilities of practitioners. This conflict is leading to professional dissatisfaction and increasing the risk of workplace burnout. With the increase in the number of corporate practices, there is a need to ensure that these workplaces do not compromise the well-being of practitioners, who like the profession, want to maintain a commitment to serving the public to the best of their ability.

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Appendix 1 | Āpitihanga 1

Registration applications by qualification type

Optometrists

Scope of practice	Applications approved for registration (1 April 2021 to 31 March 2022)	Applications approved for registration (1 April 2022 to 31 March 2023*)
Bachelor of Optometry (BOptom), University of Auckland	58	52
Pass in the OCANZ Competency in Optometry Examination (COE)	1	1
Trans-Tasman Mutual Recognition Act (TTMRA pathway)	10	17
Other (listed qualifications for "Optometrist Educator" registrations pathway)	0	1
Total number of new registrations	69	73

Dispensing opticians

Scope of practice	Applications approved for registration (1 April 2021 to 31 March 2022)	Applications approved for registration (1 April 2022 to 31 March 2023*)
Certificate IV in Optical Dispensing, RMIT University (Melbourne; Australia) ²⁷	0	0
Certificate IV in Optical Dispensing, Australasian College of Optical Dispensing (ACOD)	8	5
Association of British Dispensing Opticians (ABDO) College (London; United Kingdom)	0	0
TAFE Digital (Previously TAFE NSW, Strathfield, NSW; Australia) (Programme offered through OTEN ²⁸)	0	0
Total number of new registrations	8	5

²⁷ Previously named the "Royal Melbourne Institute of Technology" (Melbourne, Australia)
²⁸ Open Technical Education Network (OTEN), their distance education provider.

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Optometrists and Dispensing Opticians Board Te Poari o ngā Kaimātai Whatu me ngā Kaiwahakarato Mōhiti

