Short Report

Motivation to enrol in a Master of Public Health postgraduate programme at a South African university

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Background. In the context of a curriculum embedded in social perspectives linked to validated Master of Public Health (MPH) competencies, blended learning is used for learning and teaching. However, in a changing technological environment and embarking on the Fourth Industrial Revolution, it becomes imperative to understand the target audience using blended learning as a postgraduate learning environment. Curriculum restructuring and redesign have to take into account changing patterns in the context, environment and target audience for postgraduate programmes in public health.
Objectives. To determine the demographic profile of master's-level postgraduate public health students and their motivation for enrolling into a postgraduate programme.
Methods. The study is a retrospective quantitative descriptive research design using secondary data from the application forms of all registered MPH postgraduate students enrolled for the degree from 2015 to 2019. Secondary data analysis was performed using descriptive analysis to calculate frequency, percentages, means and ranking order.
Results. One hundred and eighty-four student records were analysed over the study period, with a 55% female and 45% male gender representation. South African students comprised 38% of the total number of students enrolled during the study period. The motivation to enrol in the MPH programme was to improve public health practice, specifically in the field of promotive and preventive aspects of public health. Further research into the motivation to enrol in a distance-learning postgraduate programme is required.
Conclusion. The MPH programme attracts regional and international students from multidisciplinary fields, thereby improving public health practice by moving beyond clinical practice.

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Schools of public health emerge as a response to major contemporary public health challenges, offering broad-based health professions education, conducting multidisciplinary population-based research and fostering collaborative partnerships while identifying the key drivers to achieve sustainable development goals.[1] In 2006, the Association of Schools in Public Health identified international competencies for the Master of Public Health (MPH) degree.[2] MPH degrees were introduced in South Africa (SA) over the last two decades, attracting students with diverse undergraduate degrees in health, science and social sciences.[3] In SA, 11 of the 26 public universities offer MPH degrees as part of their postgraduate programmes, where the majority of the programmes are affiliated to medical schools.[4] However, it was found that students often lacked confidence in context-sensitive issues, planning and management, research and development, and leadership competencies.[5]

A descriptive cross-sectional survey at an SA university showed that 63% of students registered for the master's programme in epidemiology and biostatistics from 2000 to 2005 were from African countries (37% were South Africans and 29% were female).[6] Furthermore, medical doctors undertaking MPH studies seek career changes, skills development and job promotion to contribute to equitable and responsive health systems, moving away from clinical medicine. Zweigenthal *et al.*[3] found that the MPH degree widened professional opportunities, with 62% of students changing jobs. The motivation for enrolling in an MPH qualification was as follows: to obtain research training (55%), to gain broader perspectives on health (32%) and to advance one's career (90%).

A distance-learning MPH degree was introduced for the first time at the University of the Western Cape, SA, in 1994, with enrolment of South Africans only. However, between 2000 and 2007, a shift took place, where enrolment attracted international interest, as it addressed a gap in the international education offerings and a skills gap in public health. The shift could be attributed to the restructuring of the programme to a flexible teaching and learning approach with text-based module guides as a teaching medium,[7] as well as addressing coherence and alignment[8] – crucial to postgraduate programmes. The shift is reflected in the enrolment of African students in the SA-based postgraduate programme (from 0% to 65%). The curriculum was designed for a multidisciplinary group of professionals with health, education and welfare backgrounds orientated towards a decentralised district health system and underpinned by a primary healthcare approach.[7] Moreover, at the same university, a study aimed at determining the primary motivations for pursuing postgraduate studies listed improving knowledge and reaching self-actualisation as factors.[9]

In 2014, another restructuring of the MPH programme took place (e.g. module expansion and credit value changes). It built on the previous study by Alexander *et al.*,[7] as it was not known if the demographic profile of students enrolling in the restructured distance-learning MPH postgraduate degree had changed and how their motivation to pursue this particular programme was influenced by the current environment of universal health coverage and implementing comprehensive primary healthcare.

Methods

The aim of the current study was to determine whether the demographic profile of the postgraduate public health students and their motivation for enrolling into the MPH degree changed after restructuring of the programme at an SA university. The two research objectives were:

- to determine the demographic profile of the students in the MPH postgraduate programme
- to describe the reasons for enrolling in the MPH postgraduate programme.

The study was a retrospective quantitative descriptive research design using secondary data. There was no sampling, as all student applications for the MPH programme from 2015 to 2019 were included. The secondary data utilised were the application forms of the students who registered for the MPH postgraduate programme. A data extrapolation form was developed to extract information from the application forms of all the registered students during the specified period. The application form consisted of three parts: a demographic section; the completion of a task that is allocated a mark, which is used for selection of students; and a motivation for enrolling in the postgraduate programme. The data extrapolation form represents a selection of variables that were analysed to respond to the research questions. Three research assistants were trained regarding the process of extrapolation of the data and the capturing of data from the extrapolation form into a Microsoft Excel (2016) (Microsoft Corp., USA) database.

Secondary data analysis was performed using descriptive analysis to calculate frequency, percentages and means. Microsoft Excel (2016) was used to capture and analyse the data, using pivot tables to determine frequency and formulas to determine percentages and means. Ranking order was used to describe the reasons for enrolling into the respective postgraduate programmes. The results are only generalisable to the population of this study.

Table 1. MPH students (2015 - 2019)

Students	2015, *n*	2016, *n*	2017, *n*	2018, *n*	2019, *n*
Registered students	122	134	134	139	131
New students	33	33	40	47	31

MPH = Master of Public Health.

Ethical considerations

Permission to use the secondary student data was requested from the registrar at the University of the Western Cape, the Head of the School of Public Health offering the MPH and the University Research Ethics Committee (ref. no. HS20/8/7). The confidentiality of the postgraduate students is protected by using the application number and not the student's name as a unique identifier on the data extrapolation form. No risks associated with the individual student or university were anticipated in this research study.

Results

A total of 197 MPH students were registered between 2015 and 2019. Seven percent of the application forms could not be found and were categorised as missing files. A total of 184 application records were used.

A year-by-year comparison of the data indicated a steady increase in the number of students enrolling for the MPH degree during the past 5 years (Table 1).

There has been consistent enrolment of South Africans in the MPH degree in the past 5 years, with SA students comprising 38% of the total number of students in the specified period. The top 4 countries enrolled in the MPH qualification are highlighted in Table 2, with SA leading, followed by Zimbabwe.

There were 55% female students and 45% male students in the programme (Table 3).

Table 4 indicates the multidisciplinary group of health professionals, highlighting clinical practitioners, with medical doctors comprising 20% and pharmacists 8% in the MPH programme in this period. Also noted is the decline in the medical doctor job category uptake from 10 to 3.

The mean experience is 8 years per cohort year, indicating very little variance when comparing years (Table 5). However, the 2 - 5 years range from 4 to 42 years' experience per cohort year and the 6 - 10 years range from 61 to 152 years per cohort year.

Fig. 1 identifies the top 4 reasons stated by registered students during 2015 - 2019 for enrolling in an MPH degree:

- to increase the understanding of preventable and promotive aspects of public health
- to improve practice in the public health field

Table 2. Nationalities of MPH students (2015 - 2019)

Countries	2015, *n*	2016, *n*	2017, *n*	2018, *n*	2019, *n*	Total, *n* (%)
South Africa	10	12	16	16	16	70 (38)
Zimbabwe	5	8	12	18	7	50 (27)
Zambia	3	1	4	5	3	16 (9)
Nigeria	5	3	1	1	1	11 (6)
Other	10	9	7	7	4	37 (20)
Total	33	33	40	47	31	184 (100)

MPH = Master of Public Health.

Table 3. Gender of MPH students (2015 - 2019)

Gender	2015 (*n*=33), *n* (%)	2016 (*n*=33), *n* (%)	2017 (*n*=40), *n* (%)	2018 (*n*=47), *n* (%)	2019 (*n*=31), *n* (%)	Total (*N*=184), *n* (%)
Male	19 (58)	13 (40)	20 (50)	18 (38)	12 (39)	82 (45)
Female	14 (42)	20 (60)	20 (50)	29 (62)	19 (61)	102 (55)

MPH = Master of Public Health.

Table 4. Job titles of MPH students (2015 - 2019)

Job titles	2015, *n*	2016, *n*	2017, *n*	2018, *n*	2019, *n*	Total, *n*
Manager	3	7	9	5	5	29
Director	1	3	5	4	2	15
Pharmacist	2	2	2	7	2	15
Doctor	10	10	7	6	3	36
Other	17	9	19	25	19	89
Total	33	31	42	47	31	184

MPH = Master of Public Health.

Table 5. Work experience of MPH students (2015 - 2019)

Work experience	2015 (*n*=32), mean	2016 (*n*=33), mean	2017 (*n*=39), mean	2018 (*n*=42), mean	2019 (*n*=31), mean
Years	8	11	8	8	9

MPH = Master of Public Health.

- to improve career prospects
- to move into the public health field.

Fig. 2 illustrates the shift between the reasons for enrolling in an MPH degree from 2015 to 2019.

The comparison between cohort years indicates various shifts and trends among the reasons for enrolling in the MPH degree.

Discussion

A distance-learning environment offers opportunities for all age groups and professional categories to engage in continuous education. The current technological era offers educational tools and modalities that increase access to teaching and learning. The results of the study illustrate an increase from 33% to 38% in the uptake of SA students in the MPH programme compared with findings from a previous study on the same postgraduate programme.[7] There are two important relevant factors: the MPH degree offers an online blended learning approach that allows students to complete the programme without having to come to SA; and SA students have to meet the same admission requirements as non-SA students and thus do not receive preferential selection based on their country of residence. In 2017, 11 public universities offered an MPH degree, but only 2 offered a blended learning approach and 1 offered an online course.[4] Blended learning approaches optimise student learning and improve student performance in health sciences courses.[]

The uptake of the MPH programme in the African region is 62%, highlighting its regional relevance and accessibility. The literature

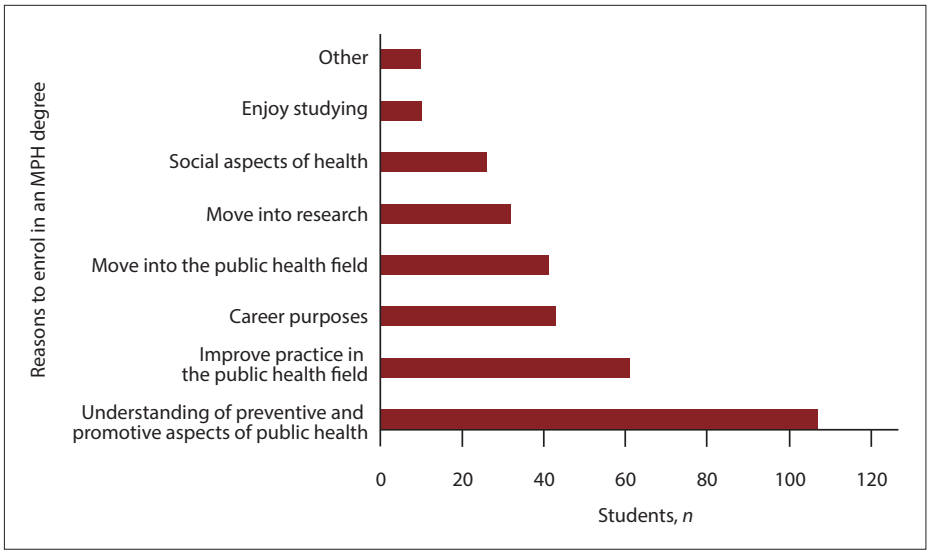

Fig. 1. Reasons for enrolling in the MPH programme. (MPH = Master of Public Health.)

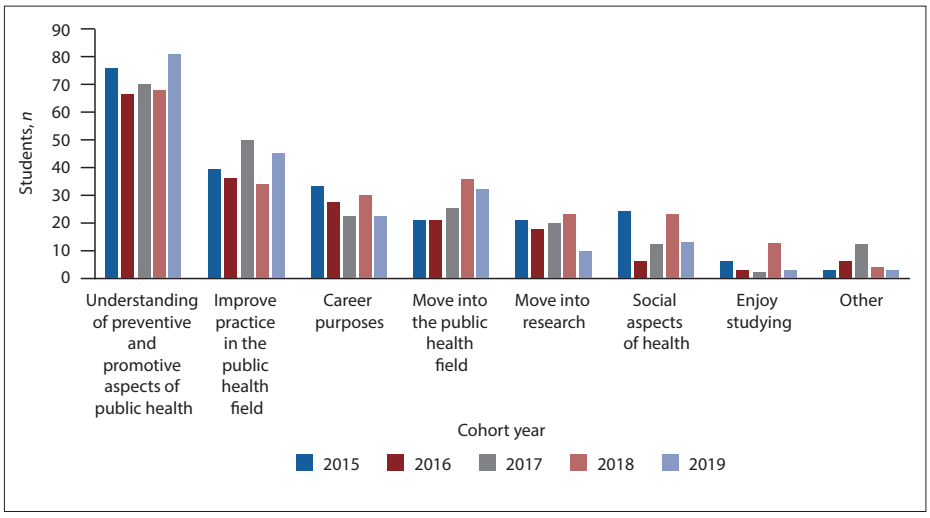

Fig. 2. Reasons for enrolling in the Master of Public Health programme per cohort year.

suggests that the motivation to study for an MPH degree in SA is mainly for career advancement. However, this study indicates a shift in motivation from primarily career advancement to being a public health practitioner, in line with the finding of Hoffman and Julie,[9] i.e. to increase knowledge. Enrolling in this MPH programme, indicates Africa's health professionals' motivation to improve public health practice, specifically in the field of promotive and preventive aspects, and adopting a comprehensive primary healthcare approach in addressing health system challenges.

Study limitations

Limitations of the study are that the application forms of prospective students were used as a source of data, which was not developed for research purposes or to address specific research questions. Another limitation is that a key variable age of students was not collected and the list of reasons for enrolling into the programme was not previously validated, but was developed to be more aligned to the programme's learning outcomes.

Conclusion

This study shows that health professionals from multidisciplinary fields enrol into the MPH postgraduate programme and occupy a large variety of job titles, as fewer students were in clinical practice. The field of public health appears to fill the gap of moving beyond the undergraduate health professional clinical degree, thereby providing opportunities for strengthening health systems and addressing the needs of the population. Further research should determine the public health practice needs and health professionals' motivation to enrol in a postgraduate MPH degree to advance the implementation of comprehensive primary healthcare and to build resilient health systems.

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