

# Investigating patient preferences in public health service delivery in the Western Cape Province, South Africa

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## Summary

The thesis aimed to assess patients' preferences for public health services (i.e., primary health care and HIV testing) in the Western Cape province, South Africa, using focus groups, discrete choice experiments and willingness to pay studies. Patient preferences must be assessed and used in policymaking and operational decisions. Therefore, it is important to add to the body of knowledge by conducting research using the clientele that uses the public health facilities and services offered, both in-house and as part of the outreach. Most South African people access health services through government-run public clinics and hospitals. As South Africa moves to adopt National Health Insurance (NHI), the success of this process hinges on public healthcare reforms which are critical to the delivery of high-quality, accessible, public-sector health services for universal coverage in the health system.

The thesis is two-fold. **Part I** (Core study) describes the studies conducted to systematically understand the willingness to pay for health services and patient preferences in the Western Cape in South Africa. **Part II** looks at HIV client testing preferences. More specifically, **Chapter 2** describes the identification and prioritization of attributes for a discrete choice experiment using a nominal group technique relative to patients' choice of public health facilities in Cape Town, South Africa. **Chapter 3** describes the enhancement of public participation in public health offerings in relation to patient preferences in the Western Cape using a Discrete Choice Experiment **Chapter 4** describes willingness to pay for Primary Health Care (PHC) at Public Facilities in the Western Cape, South Africa. . Patient preferences in **Part II** were elicited regarding HIV testing in South Africa using a Discrete Choice Experiment in **Chapter 5** which builds on the formative work done in chapters 2-4 and is based on five attributes: availability of testing on weekends or weekdays, distance from the testing centers, collection method, availability of medication at testing centers, and confidentiality of tests and levels. **Chapter 6** discusses the main findings in this thesis and discusses its main methodological considerations and implications for further research.

In **Chapter 2**, the nominal group technique (NGT) was used to select attributes linked to the choice of public primary healthcare facilities; these attributes are then used in a discrete-choice experiment (next chapter) aiming to identify and prioritize, from the patient's perspective, essential characteristics for choosing public health facilities in Cape Town, South Africa. In this chapter, results showed that the six most important attributes in choosing a facility were 'treatment by a doctor/ (family physician) (66.7%), 'distance to the community day center (61.7%), 'availability of medication' (61.7%), 'confidentiality during treatment' (57.7%), and 'waiting time' and 'treatment by a nurse.' This study was used as a basis for the next DCE on WTP, to further

confirm the feasibility and value of the NGT in identifying and prioritizing the attributes for a discrete choice experiment (DCE). The NGT, therefore, can be used to elicit patient preferences and, when employed together with a DCE, can enhance the quality and quantity of information for decision making, in tandem with patient satisfaction and experiences.

To get further insights on patients' preferences for health facilities and how they are making trade-offs between important attributes, **Chapter 3** uses a DCE where patients repetitively choose between two hypothetical health facilities which differ in six attributes: distance to facility, treatment by doctors vs. nurses, confidentiality during treatment, availability of medication, first visit (drop-in) waiting times, and appointment waiting times. The aim of **Chapter 3** is to understand how the patients' willingness to trade for certain attributes affects their choice of public health facilities. Findings in **Chapter 3** show that availability of medication (50.5%), appointment waiting times (19.5%), and first visit waiting times (10.2%) were the most important factors for patients when choosing a health facility, with respondents preferring shorter waiting times for both first visit and subsequent appointments (<2 h). Therefore, it can be deduced that the aforementioned results identified important characteristics in choosing public health facilities in Cape Town; these important attributes can be considered in other countries with similar settings.

As South Africa is currently preparing to implement National Health Insurance (NHI), there is a pressing need to understand how the public equates the provision of health services at Primary Health Care (PHC) centers with monetary value. **Chapter 4** explores the willingness to pay (WTP) for public primary healthcare services in South Africa, using an exploratory study to identify factors that influence WTP. About 60% of the study population was willing to pay for services offered at the PHC facilities. The average willingness to pay for all participants was 49.44 ZAR. The multiple logistic regression for grouped facilities showed unemployment, public transport, and the facility attended to be significant, whilst public transport, facility visits, and facility attended were the only significant variables in the Tobit model. With final regression, results show that the following were less willing to pay: the unemployed in comparison with students, those who used public transport rather than walking, those frequenting the facilities more than first-time visitors, and those attending Goodwood facility in comparison with Bothasig. **Chapter 4**, therefore, highlighted the factors related to the participants' WTP and their willingness to contribute to the health service, although at very low amounts. In the existing health economic research informed by the findings of **Chapter 4**, it would be safe to say that understanding the economic value placed upon a service provided in a facility is essential in decision-making for improving the quality of care, particularly as the South African health system is making the facilities ready for NHI.

Considering that South Africa (SA) has the world's highest burden of HIV infection, with an estimated 13.7% of the population living with HIV (PLWH/Persons Living With HIV), understanding client preferences for HIV testing may be a significant driver in improving the uptake of HIV treatment. Therefore, in **Chapter 5** client preferences for key characteristics of HIV testing options are elicited using a discrete-choice experiment (DCE). Study findings in **Chapter 5** report confidentiality as the most important attribute, followed by distance from the testing center and the method of obtaining a sample. Patients prefer a finger prick to venepuncture as the method for obtaining the sample. Further, the availability of medication at the testing site was preferred over a referral to an HIV treatment center following a positive HIV test. There were significant variations in preferences among respondents. In addition to accentuating the importance of confidentiality, the method for obtaining the sample and the location of sites for the collection of medication should be considered in the testing strategy. The variations in preferences within target populations should be considered in identifying optimal testing strategies. Generally, including patient voices to inform operational and policy decisions would increase the utilization of public health facilities in a low-income setting.

In conclusion, we assessed patients' preferences for public health services, *i.e.* primary health care and HIV testing in the Western Cape, South Africa using focus groups and discrete choice experiments. It was evident in the literature reviewed that understanding patients' preferences is crucial in effective policymaking and operational decisions. Therefore, the findings observed in this thesis, which describes research conducted using the clientele that uses the public health facilities and services offered in-house or as part of the outreach, are important additions to the body of knowledge. Furthermore, this thesis also provides evidence on using health economics methodological techniques. For instance, one of the published papers confirmed the feasibility and value of the NGT in identifying and prioritizing the attributes of a DCE, this providing supporting evidence that the NGT can be used to elicit patient preferences and, when employed together with a DCE, can enhance the quality and quantity of information for decision-making in tandem with patient satisfaction and experiences.

The thesis findings provide information on which public health facilities could be improved - and how - by including patient voices to inform operational and policy decisions in low-income settings. In addition, the thesis reveals factors related to the participants' WTP and willingness to contribute to the health service, though at very low amounts. Understanding the economic value placed upon a service provided in a facility is essential in making decisions for improving the quality of care, in particular as the South African health system is making the facilities ready for NHI. Last, understanding client preferences for HIV testing is crucial to improving uptake. The dissertation elicited client preferences for key characteristics of HIV testing options.

Observed findings revealed that in addition to the importance of confidentiality, the method for obtaining the sample and the location of sites for collecting medication should be considered in the HIV testing strategy. The variations in preferences within target populations should also be considered in identifying optimal testing strategies.