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BACKGROUND

- The South African public health sector is evolving towards the use of formal health technology assessment (HTA) for the implementation of cost-effective health technologies.¹
- Cost-utility analyses (CUA) will underpin the creation of the national benefits package and support the sustainability of the proposed National Health (NHI) Insurance Fund.²
- Ideally, local data should be used in CUA and HTA.

OBJECTIVES

- To make recommendations for evidence generation activities supportive of national HTA in the public health sector, focusing on South African health-related quality of life (HRQoL) data suitable for CUAs, and the organisations conducting such research.

METHODS

- The study was conducted in two stages
- The first evaluated the South African Guideline for Pharmacoeconomic Submissions' (SAGPS) data requirements using the EUnetHTA Core Model® framework. It compared the SAGPS against the National Institute of Health and Care Excellence Methods Guide and other African pharmacoeconomic guidelines.³
- The second consisted of a systematic review conducted in multiple literature databases using the Web of Science™ Platform and according to Cochrane methods.⁴ Table 1 summarises the inclusion criteria.

Table 1. Publication inclusion criteria

	Inclusion criteria
Population	<ul style="list-style-type: none">People of any age and health status living in South AfricaMixed populations of residents from various countries were excluded unless methods and results for the South African cohort was presented separately
Intervention / Comparator	<ul style="list-style-type: none">Any
Outcomes	<ul style="list-style-type: none">HRQoL data from preference based measured, or HRQoL data that could be mapped to preference based measures
Study design	<ul style="list-style-type: none">Any
Language	<ul style="list-style-type: none">English and Afrikaans language publications only
Publication type	<ul style="list-style-type: none">All publications i.e. full articles and abstracts
Publication date	<ul style="list-style-type: none">No limit

- The retrieved publications were quantitatively and qualitatively analysed using HTA methods guides.⁴
- The Vosviewer software was used to describe the attributes of the studies and data, and the research field in South Africa.⁵
- To comment on the quality of the HRQoL instrument translation methodology used in the studies, the dataset was updated in 2021 with a non-systematic literature review and searches of instrument developers' webpages.⁶
- Established good practice principles were used to evaluate the translation methodology.

RESULTS

- Despite several shortcomings, the SAGPS is generally indicative of the evidence requirements for a full HTA³ (Table 2).

Table 2. Results according to the EUnetHTA Core Model® domains

DOMAIN (% of row)	SAGPS			EUnetHTA			NICE		
	YES	PARTLY	NO	YES	PARTLY	NO	YES	PARTLY	NO
Health problem and current use	50.0%	22.2%	27.8%	44.4%	16.7%	38.9%	61.1%	16.7%	22.2%
Description and technical specification	30.8%	23.1%	46.2%	7.7%	23.1%	69.2%	46.2%	30.8%	23.1%
Safety	22.2%	0.0%	77.8%	11.1%	0.0%	88.9%	22.2%	0.0%	77.8%
Clinical effectiveness	33.3%	16.7%	50.0%	33.3%	0.0%	66.7%	50.0%	16.7%	33.3%
Costs & economic evaluation	75.0%	8.3%	16.7%	83.3%	0.0%	16.7%	100.0%	0.0%	0.0%
Ethical analysis	10.5%	10.5%	78.9%	21.1%	5.3%	73.7%	42.1%	10.5%	47.4%
Organizational aspects	9.1%	9.1%	81.8%	9.1%	0.0%	90.9%	54.5%	18.2%	27.3%
Patients and social aspects	16.7%	16.7%	66.7%	33.3%	0.0%	66.7%	66.7%	16.7%	16.7%
Legal aspects	0.0%	7.1%	92.9%	0.0%	0.0%	100.0%	21.4%	0.0%	78.6%
TOTAL (100%)	28.1%	13.2%	58.8%	27.2%	6.1%	66.7%	50.9%	12.3%	36.8%

Rating key: "Yes" = completely requiring the same or similar information as the Model®; "Partly" = requiring some of the information as the Model®; "No" = not the requiring the same or similar information as the Model®

- The systematic review identified 123 publications (104 studies) reporting HRQoL data (Figure 1), thus indicating there is an existing body of HRQoL data in South Africa.⁴
- Studies were conducted in a range of settings and populations using mostly generic HRQoL instruments in multiple languages.⁴
- Most are, however, unlikely to support CUA due to their observational, cross-sectional nature and lack of reporting the methodological details necessary to determine their scientific merit as needed for national healthcare priority setting decisions using HTA.⁴
- South African-based researchers and research organisations strongly contributed to generating South African specific HRQoL data (Figure 2), however, their performance was below the dataset average and data generation, overall, was characterised by a lack of continuity and disconnected research networks (Figure 3).⁵

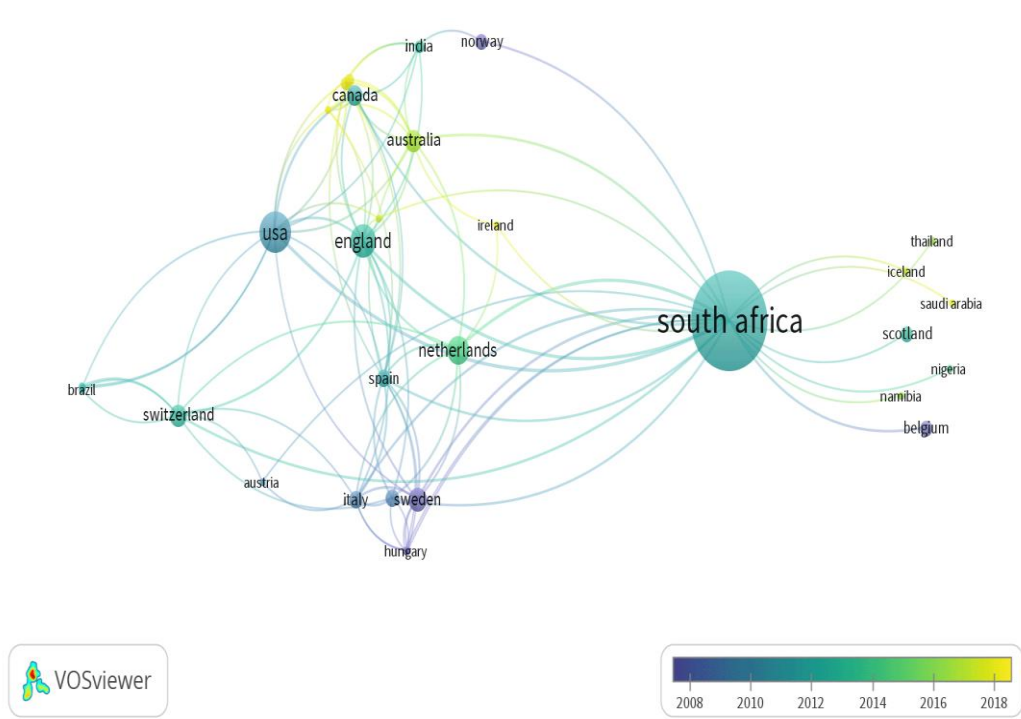


Figure 2. Country co-authorship network

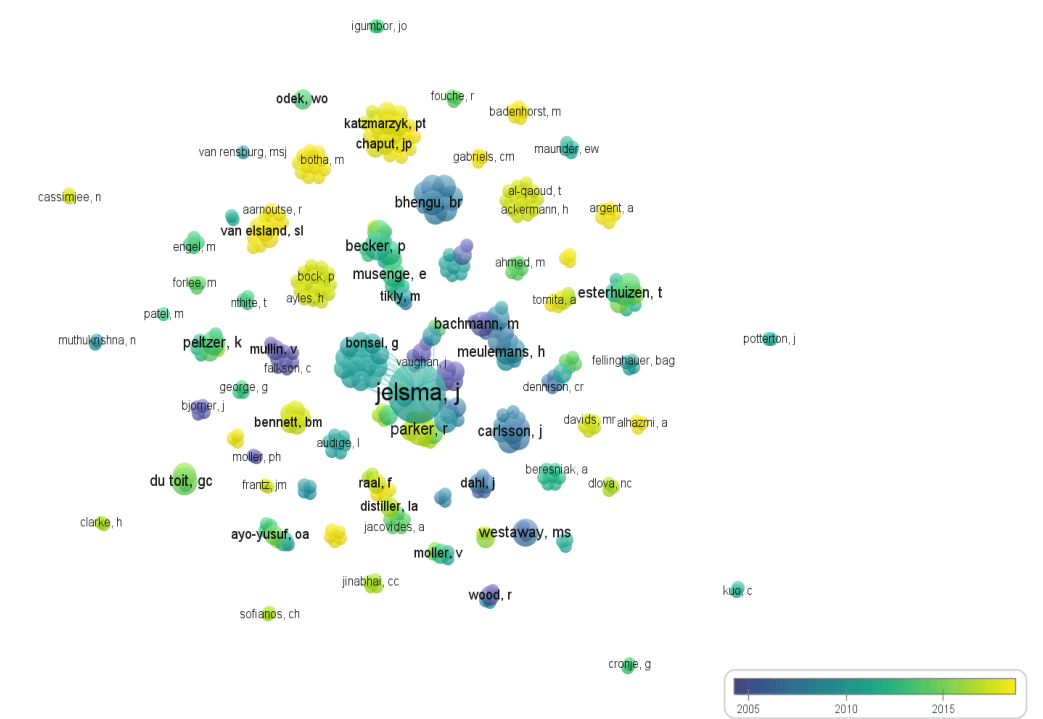


Figure 3. Researcher co-authorship network

- Several HRQoL instruments suitable for CUA have been used in South African settings, but only a few meet the requirements of the SAGPS for being valid within the South African context due to their inadequate translation methodology or poor reporting thereof (Table 3).⁶

Table 3. Instrument translation stages and ratings

Instrument and version	Instrument language(s)	Formal translation available from developer or investigator's translation used?	Two parallel forward translations	Reconciliation and consensus	Two back translations	Review and harmonization	Piloting and cognitive debriefing	Finalization
Generic instruments								
AQoL-6D	Afrikaans	No translation available from developer, translated by study investigator	0	0	-	0	0	0
	Setswana	Developer's translation used	+	+	+	+	+	+
	Afrikaans	Translated by investigator despite availability of official translation	0	0	?	0	0	0
	isiXhosa	Translated by investigator using developer's protocol	+	+	+	+	+	+
	isiZulu	Developer's translation used	+	+	+	+	+	+
	Sesotho	Developer's translation used	+	+	+	+	+	+
EQ-5D	Setswana	Developer's translation used	+	+	+	+	+	+
	isiXhosa	Translated by investigator, unclear if official translated version was available at time of study	0	0	-	0	0	0
HUI3	Afrikaans	Developer's translation used	+	+	+	+	+	+
	Setswana	Translated by investigator, unclear if official translated version was available at time of study	0	0	-	0	0	0
PedsQL 4.0 Generic Core Scale	Afrikaans	No translation available from developer, translated by study investigator	?	0	-	?	+	0
	Sesotho	No translation available from developer, translated by study investigator	?	?	?	?	+	?
	isiXhosa	No translation available from developer, translated by study investigator	0	0	0	0	+	0
	isiZulu	No translation available from developer, translated by study investigator	0	0	0	0	+	0
	Afrikaans	Developer's translation used	+	+	+	+	+	+
	Sesotho	Developer's translation used	+	+	+	+	+	+
Satisfaction with Life Scale	Afrikaans	Developer's translation used	+	+	+	+	+	+
	isiXhosa	Developer's translation used	+	+	+	+	+	+
	isiZulu	Developer's translation used	+	+	+	+	+	+
	Sesotho	Developer's translation used	+	+	+	+	+	+
SF-36	Afrikaans	Developer's translation used	+	+	+	+	+	+
	isiXhosa	Developer's translation used	+	+	+	+	+	+
	isiZulu	Developer's translation used	+	+	+	+	+	+
	Sesotho	Developer's translation used	+	+	+	+	+	+
SF-12	Afrikaans	Developer's translation used	+	+	+	+	+	+
	isiXhosa	Developer's translation used	+	+	+	+	+	+
WHOQOL-BREF	Afrikaans	No translated version available at the time of the study, translated by the study investigator	-	0	0	0	0	0
	Setswana	Translated by investigator, unclear if official translated version was available at time of study	-	0	0	0	0	0
Disease-specific instruments								
DLQI	Afrikaans	No translated version available at the time of the study, translated by the study investigator	?	0	?	+	+	0
	isiXhosa	Developer's translation used	?	+	?	+	+	?
	Setswana	Developer's translation used	?	+	?	+	+	?
	isiZulu	Developer's translation used	?	+	?	+	+	?
EORTC QLQ-C30	Afrikaans	No translation available from developer, translated by study investigator	-	0	0	0	0	0
	Setswana	Translated by investigator despite availability of official translation	?	0	0	0	0	0
	isiXhosa	Translated by investigator despite availability of official translation	?	0	0	0	0	0
	isiZulu	Developer's translation used	?	+	+	+	+	?
FACT	General	No translated version available at the time of the study, translated by the study investigator	-	?	-	+	+	+
	isiXhosa	Developer's translation used	-	?	-	+	+	+
	Setswana	Developer's translation used	-	?	-	+	+	+
	isiZulu	Developer's translation used	-	?	-	+	+	+
PDQ-39	Afrikaans	Translated by investigator, unclear if official translated version was available at time of study	-	0	-	0	+	-
	Setswana	Translated by investigator, unclear if official translated version was available at time of study	-	0	-	0	+	-

Rating key: positive (+) = performed according to the quality criteria used; negative (-) = not performed as recommended; uncertain (?) = insufficient information available to rate the stage; unknown (0) = no information available to rate the stage.

RECOMMENDATIONS

- Stakeholders interested in HTA, whether for clinical or access and reimbursement decisions, should familiarise themselves with the content of the SAGPS and plan evidence generation activities that will meet the data requirements currently laid out therein.
- Stakeholders should also conduct, and accurately report, scientifically rigorous research aligned with the SAGPS' methodological requirements as this will allow the HRQoL data to be used in a CUA, thereby supporting the NHI Fund and healthcare priority setting decisions.
- South African HRQoL research output could be optimised for use in CUA by researchers expanding their local and international networks to researchers working in HTA and related fields such as health economics and health policy.
- The EQ-5D-3L may be best suited for use in South Africa where utility data is needed for a CUA, and therefore its use in HRQoL studies and for CUA should be encouraged and supported through establishing a South African value set.
- Further reviews and assessments should be conducted to identify available South African specific data sources and their suitability for HTA on the topics of burden of disease, epidemiology, treatment patterns, costs and resource use.

CONCLUSIONS

- HRQoL data generation is feasible in a South African setting.
- However, to produce the necessary data for CUAs, data generation activities should be optimised by incorporating the recommendations from this study.

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DISCLOSURE

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- The authors have no other relevant affiliations or financial involvement with any organisation or entity with a financial interest in, or financial conflict with, the subject matter or materials discussed in the poster.