

**A Review of the Expert Report
Prepared for the Section 59
Investigation Panel**

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Topics |



Background

Technical
Flaws

Extenuating
Factors

Conclusions



Background

Background | Introduction



Review mandated by GEMS



Insight Actuaries and Consultants in collaboration with Professor P Fatti



Independent expert review



Background | Synopsis of the Report Subject to Review

Proportion of black practitioners flagged

VS

Proportion of non-black practitioners flagged

To the extent that the proportion of black practitioners flagged as possibly guilty of FWA is higher than the proportion of non-black practitioners flagged, bias is deemed to be evident



Background | Synopsis of the Report Subject to Review



No definitive registry
which details race

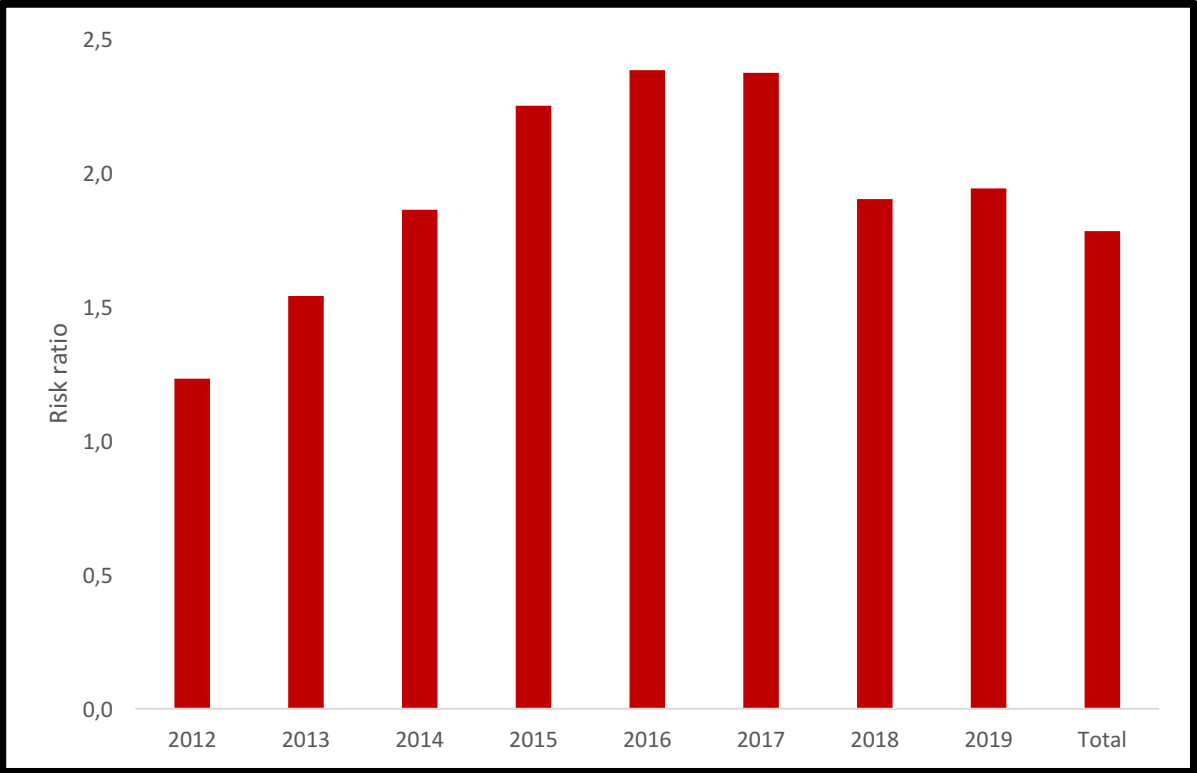


Infers race based
on surname

Robustness of the report
hinges on the merits of
this approach



Background | Synopsis of the Report Subject to Review



Black practitioners are 78% more likely to be flagged

The experts appointed by the panel use this to conclude that GEMS exhibits racial bias



Background | Assessment

We believe that the report fails to provide that GEMS is guilty of racial bias



Significant technical flaws



Differences between black and non-black practitioners may be due to extenuating factors



Technical Flaws

Technical Flaws |



Exposure

Corporatised
and state
practices

Group
practices

Classification
errors



Technical Flaws

Exposure

Technical Flaws | Exposure

An illustrative example to highlight the importance of exposure



Assume all GEMS members live in a region where only black practitioners are accessible. Members will only interact with black practitioners.

Thus, black practitioners will have an opportunity to perpetrate FWA whilst non-black healthcare practitioner will not.



Technical Flaws | Exposure

An illustrative example to highlight the importance of exposure



Assume all GEMS members live in a region where only black practitioners are accessible. Members will only interact with black practitioners.

Thus, black practitioners will have an opportunity to perpetrate FWA whilst non-black healthcare practitioner will not.



The unavoidable consequence is that only black practitioners will be flagged as possibly guilty of FWA



Technical Flaws | Exposure

An illustrative example to highlight the importance of exposure

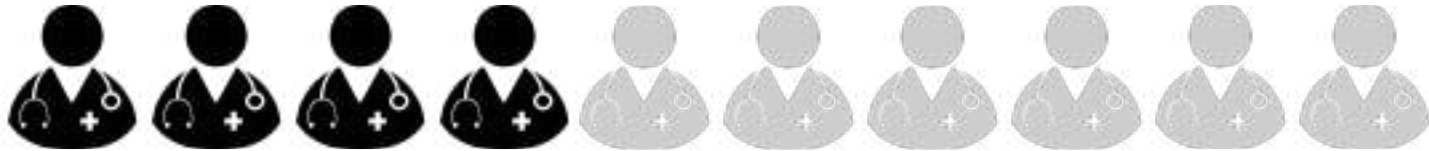
By not accounting for exposure, the experts appointed by the panel would conclude that GEMS is more likely to flag black practitioners as possibly guilty of FWA than non-black practitioners

By implication, the experts would incorrectly determine that GEMS is guilty of racial bias



Technical Flaws | Exposure

4 out of every 10 practitioners are black



6 out of every 10 interactions are with black practitioners



Black practitioners have more opportunity to perpetrate FWA in the GMS context and this can and must be accounted for



Technical Flaws

Corporatised and State Practices

Technical Flaws | Corporatised and State Practices



The experts appointed by the Section 59 Investigation Panel included corporatised and state healthcare practices in their analyses



Technical Flaws | Corporatised and State Practices



Corporatised and state practices do not have surnames. By virtue of their practice names, these practices are typically deemed non-black.

For example, Tygerberg Hospital or Polokwane Hospital



Technical Flaws | Corporatised and State Practices



A corporatised or state practice cannot be assigned a race. These practices typically employ multiple healthcare practitioners.



Technical Flaws | Corporatised and State Practices

Discipline description
Acute hospitals
Ambulance services
Blood transfusion services
Clinical services
Clinical technologists
Day clinics
Drug and alcohol rehabilitation
Group practices
Group practices hospitals
Hospice
Mental health facility
Nursing agency
Pathologists
Pharmacies
Public hospitals
Radiologists
Rehabilitation Facility
Subacute facilities
Unattached operating room facility

Disciplines commonly associated with corporatised or state practices should be excluded from these analyses



Technical Flaws

Group Practices

Technical Flaws | Group practices

The experts appointed by the panel included group practices in their analyses. Group practices comprise of multiple healthcare practitioners.



A group practice cannot be assigned a race. Group practices typically comprise of multiple practitioners and the names of these practitioners cannot necessarily be inferred from the practice name.

Group practices should be excluded



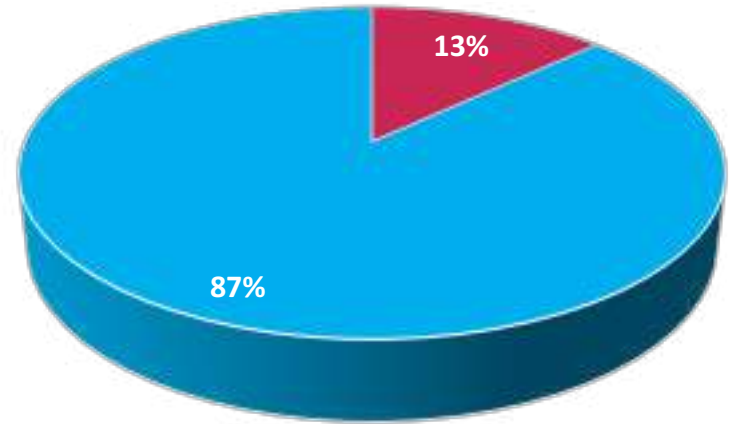
Technical Flaws

Classification Errors

Technical Flaws | Classification errors

A desktop audit of 800 of the largest practices in the GEMS context

High error rate brings into question the veracity of the results



■ Incorrectly classified ■ Correctly classified

A full verification process is required, in the absence of which results are dubious



Technical Flaws | Classification errors

Number	Name	Number	Name	Number	Name	Number	Name
7536	Dr C Tarwa	412406	Dr Cyprian Masedi	167401	Dr S Nadaraju	1541366	Dr P Panday
9741	Dr Joel Edonga	438383	Dr K Shein	179205	Dr TE Madlhophe	1548980	Dr AJK Shayo
9865	Dr OO Dunmoye	439509	Dr EM Taban	182079	Dr AH Garach	1552708	Dr Indres Lingoomiah
132	Dr OG Gidaga	443166	Dr Fazleh Taleb	209295	Dr Netsa Kirimi	1552937	Dr Rowley Lenyai
27340	Dr Kizito Machache	470333	Dr JO Iruedo	217484	Dr MM Gaqavu	1568981	Dr Habimana Sunday
28479	Dr L P Lomalisa	494941	Dr David Oloruntoba	218790	Molemo Healthcare Clinic	1570234	Dr BK Afolayan
32913	Dr Vakhtang Rekhviashvili	501522	Dr Polycarp Orji	221104	Dr Clement Fabiyi	1576631	Dr S Vena
36617	Dr M M Z Titus	515027	Dr AM Bitini	234656	Dr S Zigana	1584936	Dr TJ Kamolane
38199	Dr SH Vilane	1424815	Dr R Panday	239127	Dr TT Benani	1586823	Dr M Gathiram
39349	Dr COY Yako	1437208	Dr AC Solanki	253499	Dr Devan Gounder	1605410	Dr I Tootla
44571	Dr Mathew Fagbuyi	1439308	Patel Ahmed E & Partner	262536	Dr N K Sifo's Medical Suite	1608673	Mafikeng Gynaecologist
59862	Dr P Bakane	1462601	Dr Kishore Vithal	275115	Dr AA Odufu	1804979	Dr RJ Govan
70092	Dr SS Manchidi	1467611	Dr MSAR Warrasally	279846	Dr Moeketsi Thothela	1809458	Isaacs Mogammad R
70521	Mcunu S Incorporated	1473433	Dr F A Saley	286141	Reddy T	1810960	Dr TM Machiri
71277	Dr T M Douw – Khumalo	1488899	Dr B Jivan	288160	Dr MS Pataki	1811630	Dr HC Hsu
71560	Dr MSB Wasswa	1491113	Dr AR Mistry	292648	Dr K A Olowu	1900072	Dr B Oduro-Domfeh
72540	Dr Andrew Atuhaire	1495356	Dr I Rawat	310492	Dr A O Nwafor	2100800	Dr FI Tayob
74624	Dr G Koboka	1505351	Dr RB Persadh	326755	Physio Nirodh	2805928	Morrish Bhagwan
96520	Dr A T Y Siphambo-Mngxali	1512889	Dr SM Savrimuthu	333077	Dr LA Sadhabiriss	3204057	Dr CMK Masiangoako
118478	Dr AE Gantana	1514326	Dr I Macken-Mistry	337811	Dr S Boateng	3205738	Dr L T Usaiwevhu
127078	Dr M Gibango	1515144	Drabile T D	339784	Dr RJ Jaikarun	3205827	Dr MN Tabiri
140759	Dr N Mofolo	1518100	Dr KJ Pilusa	355429	Dr N Yapi	4207793	Dr CWWK Mushabe
149705	Dr RG Calokechi	1519182	Dr Mohammed Gause	374792	Folo - Thiamiyu Trading	7229313	Mrs A Pandeka
149837	Dr NC Shao	1530410	Dr SJ Matroshe	392944	Dr M Radzilani	7230907	Mr FM Mazui
154679	Dr J Paraze	1538195	Dr JAB Lulua	395374	Dr I Chamisa & Partners	7232225	Mrs Devashni Gathiram
166413	Dr Zaheer Sacoor	1538802	Dr P Kaitakirwa	404683	Ms K Sarugaser	8700699	Gidzha Silas & Partners



Revised Assessment

Revised Assessment |



Adjusting for exposure

Corporate, state and group

Misclassified practices



Validating the racial profile of healthcare practitioners – beyond the ambit of this assessment



Revised Assessment |



Risk ratio reduces
from 1.78 to 1.47



Errors overstated
differences



Results remain flawed –
full validation required



Extenuating Factors

Variations |

Racial bias

VS

Extenuating factors

The experts appointed by the panel assert that GEMS is guilty of racial bias as a greater proportion of black practitioners are flagged as possibly guilty of FWA

This difference could be due to extenuating factors rather than racial bias



Variations |



Vuvuzela hotline



GEMS

GEMS results are consistent with that of an independent process which further suggests that differences are attributable to extenuating factors rather than bias



Conclusions

Conclusions |

There are several fundamental flaws in the report prepared by the experts appointed by the Section 59 Investigation Panel. These flaws relate both the underlying methodology and the interpretation of results.

Technical shortcomings pertain to:

- A failure to adjust for exposure
- The inclusion of state and corporate disciplines
- The inclusion of group practices
- Incorrect racial classifications



Conclusions |

These technical shortcomings materially distort results. The experts appointed by the Section 59 Investigation Panel will need to perform further work to remedy these shortcomings (in particular incorrect racial classifications).

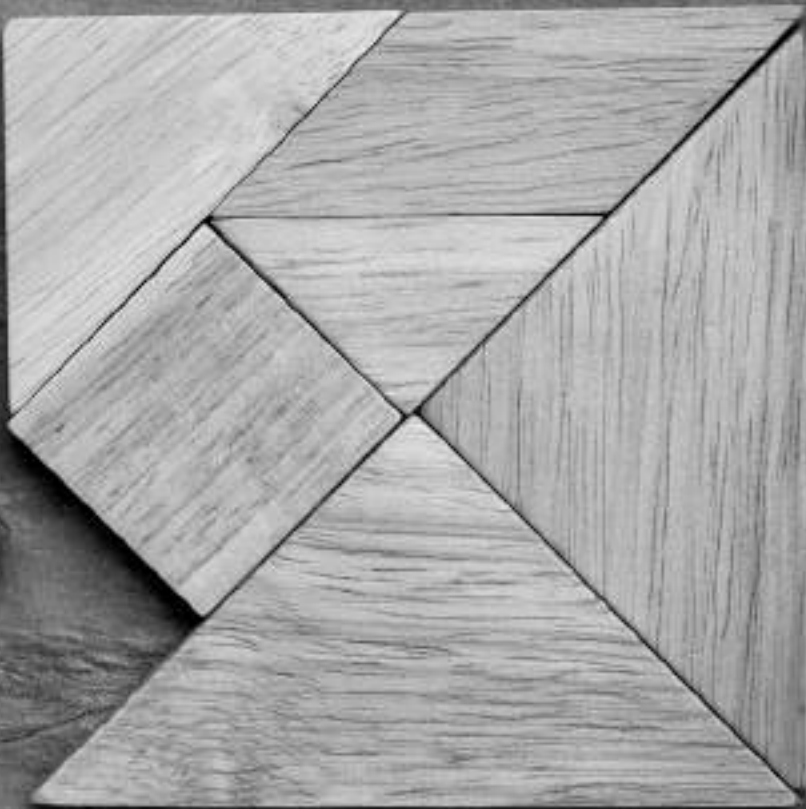
Shortcomings relating to the interpretation of results pertain to:

- The mistaking of a difference between black and non-black practitioners as racial bias as indicated by the fact that the GEMS results are consistent with that of a wholly independent process.

Based on the above, one cannot conclude that GEMS is guilty of racial bias.



Thank You



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