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BACKGROUND

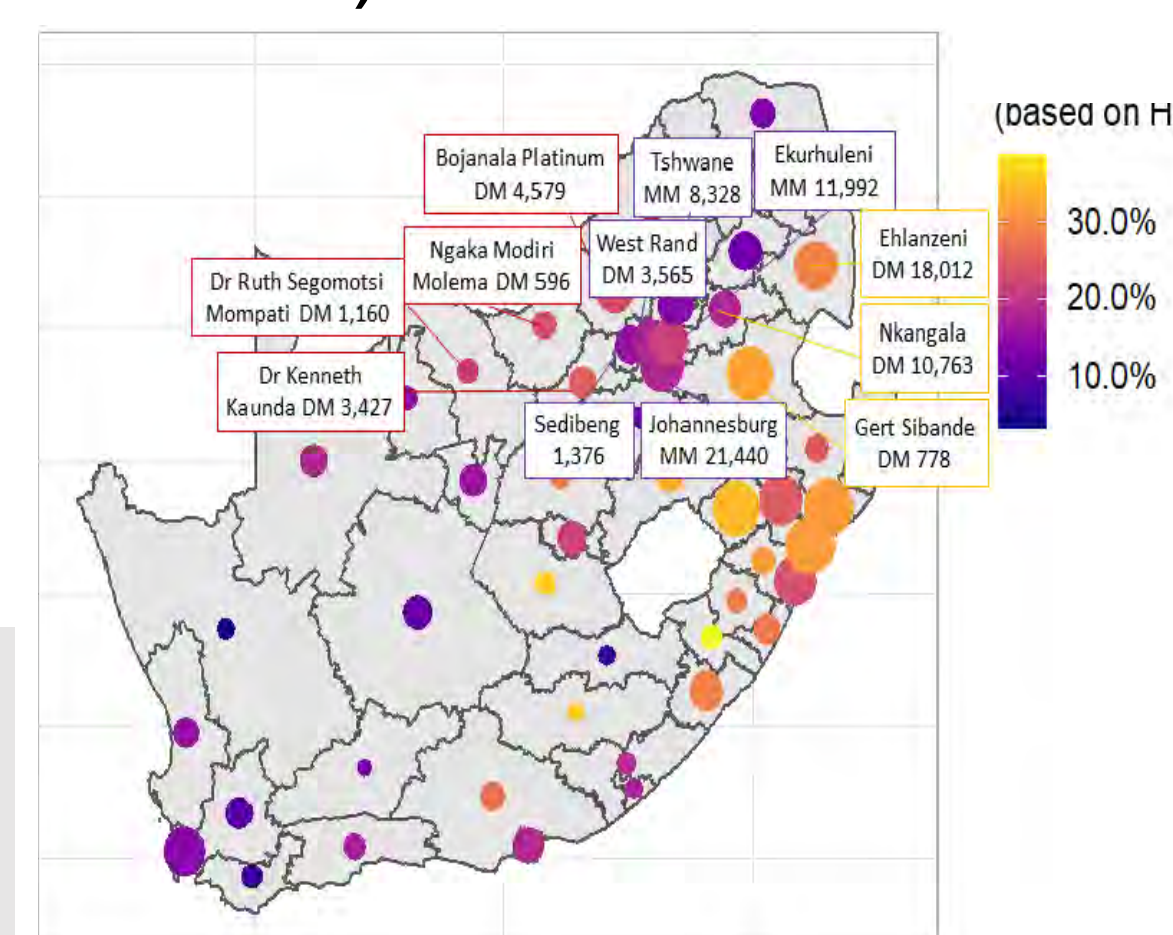
- South Africa started distributing HIV self-test (HIVST) kits at workplaces in 2017
- We analysed **the ability of HIVST to reach infrequently tested or never tested employees and the cost of distributing HIVST kits** to rural workplaces compared to urban industries
- Distribution targeted to small- and medium-sized workplaces with a predominantly male workforce and low baseline HIV testing in the **mining, construction, manufacturing, security, petroleum and agriculture sectors** in one urban (Gauteng) and two predominantly rural provinces (Mpumalanga and North West)
- **Distribution included primary distribution** (kits given directly to employees) **and secondary distribution** (kits taken by employees to sexual partners)

METHODS

- **Uptake: Multivariate regression** of the frequency of past testing to compare the probabilities of reaching never or infrequently tested populations with primary HIVST distribution in rural vs. urban workplaces
- **Cost analysis:** Primary and secondary distribution from provider perspective; included the economic cost of the kit (\$2, the current ex-works cost under an agreement with the manufacturer), freight, mobilisation, company sensitisation and HIVST demonstration, distribution and follow-up by peer educators.

RESULTS: Test kit distribution

- 123,727 self-test kits distributed at 2,313 companies (69% primary, 31% secondary distribution) between Nov. 2017 and Aug. 2018
- Distribution focussed on high prevalence districts.



Self-test distribution in workplaces leads to improved HIV testing coverage in previously under-tested rural male populations - at a lower cost than other distribution models

RESULTS: Uptake

- **Uptake of self-test kits was 85% across industries, and in men was twice that of women**
- 13% of kits distributed to employees who had never tested, and 38% to those last tested >12 months ago
- HIVST uptake in infrequently and never tested populations was **3 times higher in rural workplaces** and **especially high in never tested employees aged <25 and in infrequently tested employees aged 25-34**

	Agriculture	Construction	Food	Manufacturing	Mining	Motor	Petrol stations	Retail	Security	Service
Never-tested (Urban)	2.214***	1.458**	1.612*	0.754	1.075***	0.967	0.907	1.022**	1.542***	1.883***
95% CI	[1.57;3.1]	[1.03;2.1]	[0.48;2.0]	[0.51; 1.1]	[0.57;6.0]	[0.46;1.1]	[0.14;1.5]	[0.74;1.5]	[1.07;2.2]	[0.99;3.3]
Never tested (Rural)	4.118***	4.550***	2.945**	3.000**	2.106***	1.876**	2.311**	3.374**	2.741**	5.462***
95% CI	[1.62;9.2]	[1.86;11.3]	[1.21;7.2]	[1.21; 7.4]	[1.68;10.0]	[0.94;5.8]	[1.20;5.7]	[1.11;8.3]	[1.35;6.8]	[2.23;13.2]
Infrequent testers (Urban)	2.670***	1.888***	0.848	0.905	1.082**	0.947	0.924	1.706***	1.067***	1.722***
95% CI	[1.19;2.2]	[0.69;1.14]	[0.65;1.0]	[0.69; 1.2]	[0.76;1.3]	[1.18;9.1]	[0.71;1.2]	[1.37;10.7]	[0.85;1.4]	[1.30;2.2]
Infrequent testers (Rural)	3.941***	1.919***	1.234**	1.202**	1.832**	1.839*	1.094*	2.558***	1.150***	1.858***
95% CI	[3.34;4.9]	[1.25;2.0]	[0.94;1.6]	[0.92; 1.5]	[1.12;1.8]	[0.96;1.6]	[0.31;0.5]	[1.20;2.0]	[0.88;1.5]	[0.82;1.4]

***, **, * denote p values of <0.001, 0.05 and 0.1, respectively.

RESULTS: Cost

- The **average cost per HIVST kit distributed was**
 - **\$4.25 overall**
 - \$4.30 in rural agricultural workplaces
 - \$4.35 in urban industries

Cost categories	Average cost	%
Sensitisation	\$ 0.23	5%
Material development costs	\$ 0.04	1%
Equipment	\$ 0.002	0.04%
Total capital costs	\$ 0.27	6%
Personnel	\$ 1.44	34%
Kits (incl. freight)	\$ 2.32	55%
Other supplies	\$ 0.04	1%
Vehicle maintenance	\$ 0.08	2%
Travel costs	\$ 0.06	1%
Waste management	\$ 0.01	0.3%
Follow up process	\$ 0.02	1%
Total recurrent costs	\$ 3.98	94%
Total average cost	\$ 4.25	100%

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