

Background

Founded in 2011, the Dental Wellness Trust aims to promote good oral health through tailored oral hygiene programmes. In two townships bordering Cape Town, *Mfuleni & Khayelitsha*, teachers in Educare (primary schools) and volunteers known as "toothbrushing mamas", are responsible for running these prevention programmes. One example, is the "*Livesmart Brushing*" programme

Currently, there is **one dentist for every 71,875 residents**^{1,2} in South Africa, with a substantially lower proportion of dentists in the townships around Cape Town. Resource scarcity means that service provision ought to be targeted based on the oral health problems that the population face. This way, service provision, preventative measures and delivery of care can be as efficient and effective as possible.

Aims & Objectives

- To assess the **oral health status** & it's impact on the **quality of life** of the teachers & "mamas" in the townships in Cape Town
- To use a **standardised data set** to collect information so that the data can be compared with another populations across the globe.

Methods

A total of **161** Educare teachers & "toothbrushing mamas" were assessed using the standardised data set created by the FDI World Dental Federation & International Consortium for Health Outcomes Measurement³.

The data set was compromised of **two components**:

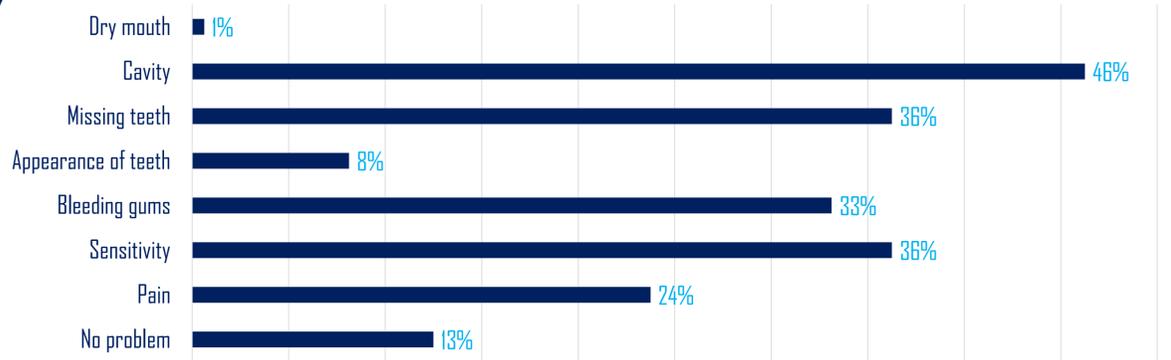
- A questionnaire completed by the patient, which explored:
 - Psychological status
 - Psychosocial functioning
 - Moderating factors
 - Driving determinants
- Clinical examination by a clinician which assessed:
 - Caries Status
 - Periodontal Status

Each clinician was **calibrated** to a series of clinical pictures & trained to use the data set prior to data capture. History taking was aided by the "mamas" who helped translate between Xhosa and English when necessary.

Ethical approval for the study was granted by the **University of The Western Cape (UWC)**.

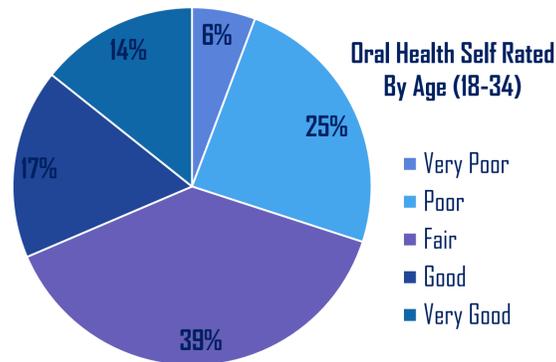
Results

Self Perceived Main Problems With Mouth



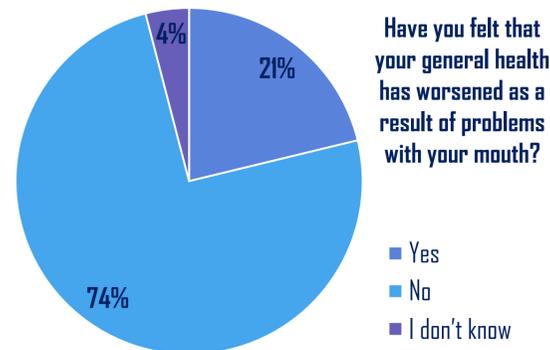
How Frequently Are You Bothered By?

Frequency	Dry Mouth	Sensitivity To Hot/Cold	Pain	Your Appearance	Difficulty Eating	Difficulty Speaking	Difficulty Sleeping	Difficulty Interacting
Never	91%	43%	53%	26%	77%	85%	74%	84%
Hardly Ever	1%	3%	1%	9%	3%	2%	4%	3%
Sometimes	3%	14%	9%	6%	6%	4%	6%	4%
Fairly Often	4%	28%	31%	42%	13%	8%	15%	8%
Often	1%	11%	6%	16%	3%	1%	1%	1%



Other Notable Results:

- 76% had bleeding on probing
- 86% had visible plaque
- 69% had caries
- 50% had probing depths >5mm
- 32% of responders brushed once daily
- 97% of responders were female
- 19% had finished college
- 7% had a prosthetic appliance



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Discussion

- Despite a high prevalence of caries, periodontal disease and the respondents being bothered by pain & sensitivity (see results), the majority reported that their **oral health did not have a significant negative impact** on their daily lives.
- It should be noted that as the respondents run oral hygiene prevention programmes for children, they may not reflect the oral health of the local population as they are likely to take better care of their teeth. In which case, the reality of the prevalence of **dental disease may be a lot higher than this data suggests**. Due to lack of equipment we were also unable to incorporate X-ray imaging in the assessment.
- With limited resources in the townships, the provision of dental care needs to be allocated efficiently in order to maximise its effect on treating the local population. Beyond active operative intervention, **effective prevention strategies** are also needed alongside further training to prevent further progression of disease. With this in mind, any health promotion proposed should include a spread of downstream, midstream & upstream initiatives.
- Downstream interventions need to be **education focused and preventative in nature**. As a the *Livesmart* oral hygiene prevention programme is already running for the children, a modified programme could also be extended to include adults in the townships too.
- From a midstream perspective, access to dental care needs to be improved by providing **affordable community dental services** in the townships themselves. High strength fluoride toothpaste, fissure sealants, preventative resin restorations and low sugar alternatives to snacks could also drastically reduce the incidence of dental caries.
- Upstream interventions such as **water fluoridation, healthy food coupons, and sugar tax** ought to be considered by the government in the future.
- The data here will be used to compare to the other programmes the Dental Wellness Trust run nationally (UK) & internationally.