

# Outreach in the Pearl of Africa:

A learning and research  
experience in Uganda

Western Internationalization  
Schulich Medicine and Dentistry  
Kampala, Uganda

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# Outline

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Objectives and Background

2

Clinical Rotation and Research activities

- Joint Clinical Research Center
- Makerere University
- Mulago National Referral Hospital

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Learning Highlights & Changing Perspectives

# Uganda Demographics

- Landlocked country in East Africa
- 46.2 million inhabitants<sup>2</sup>
- Almost 1 in 5 citizens lives below the poverty line<sup>2</sup>
- Life expectancy 64 years, almost 10 years lower than global average<sup>2</sup>
- Estimated 1.1 million people living with HIV/AIDS, upward trend in infection rates<sup>3</sup>



<sup>2</sup>Uganda Ministry of Health, author. *Health Sector Strategic Plan 2000/01 – 2004/05*. Kampala Uganda: Ministry of Health; 2004.

<sup>3</sup>Ministry of Health (MOH) [Uganda] and ORC Macro Uganda HIV/AIDS Sero-behavioural Survey, 2014

# Healthcare Financing in Uganda

7-9% allotted of Uganda  
National Budget allotted  
for Healthcare<sup>1</sup>



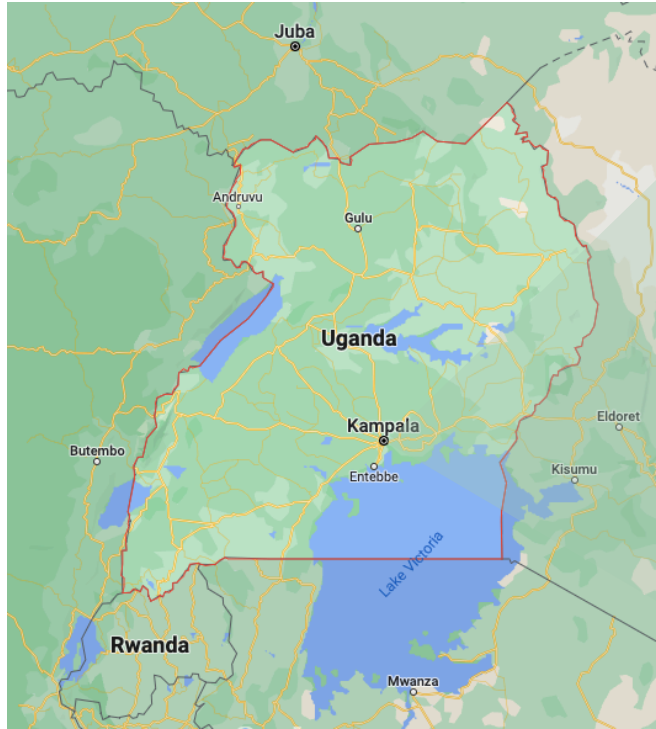
<0.1% for  
oral health  
services<sup>1</sup>

National Oral Health Care policy: developed in 2007

- Limited focus on oral manifestations of patients with HIV/AIDS



# Schulich Outreach Program Locations in Kampala



# Learning objectives

1. Understand the role of social determinants on oral health in the context of global health
2. Understanding the psychosocial and clinical impact of oral health policies on the clinical needs of global population
3. Interprofessional collaboration



Photo: JCRC



# Practicum Site #1: Joint Clinical Research Centre

- Established in 1991 to respond to HIV/AIDS epidemic
- Collaborative research centre: CDC, NIH, John's Hopkins,
- Provides health care through multiple departments: Pediatrics, Cardiology, Radiology, Psychosocial, Pharmacy
- Dental care provided to medically complex patients



# Our Research at JCRC

- Retrospective chart review investigating the relationship between HIV/AIDS and DMFT values in low SES populations
- Clinic experience with HIV patients while learning about oral health barriers





# Practicum Site #2: Makerere Dental School

- New dental school opened in May 2022: 3 clinic buildings; 32 dental chairs; 30-50 students per year
- 5-year program (out of high school)



# Makerere Dental Clinic

- Assisting and shadowing 4<sup>th</sup> and 5<sup>th</sup> year dental students with procedures
  - Pediatrics: Pulpotomy, pulpectomy, patient management with Dr. Samantha
  - Periodontics: perio data collection, cleaning and scaling
  - Operative and Endo: restorations and root canal treatments
  - Oral Surgery: extractions
  - Prosthodontics: Crown cementation





# Makerere Dental Clinic

- Positive learning environment
- Group sessions with clinical instructors: question and answer format



# Practicum Site 3: Mulago National Referral Hospital

## Teaching Hospital

- Government hospital
- Required 1-year internship
- Oral surgery residents

## Referral Centre for publicly funded cases

- Visual of limited oral health care funding with long waitlists and advanced oral lesions
- Medically compromised, refugees, and low income patients



# Practicum Site 3: Mulago National Referral Hospital



## Outpatient Cases

Ameloblastoma, hemangioma, sub masseteric space infection, osteomyelitis, + fibroma



## Inpatient Cases

Cancrum oris, unilateral TMJ ankylosis, trauma, mandibular fracture, + ossifying fibroma



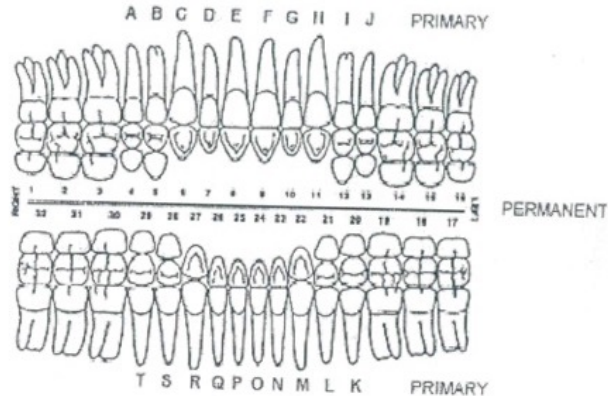
## Surgical Theatre

Internal fixation (mandible and zygomatic arch), + epidermal cyst enucleation



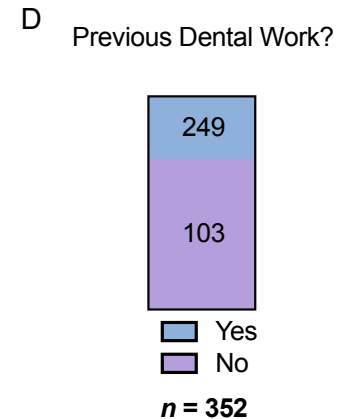
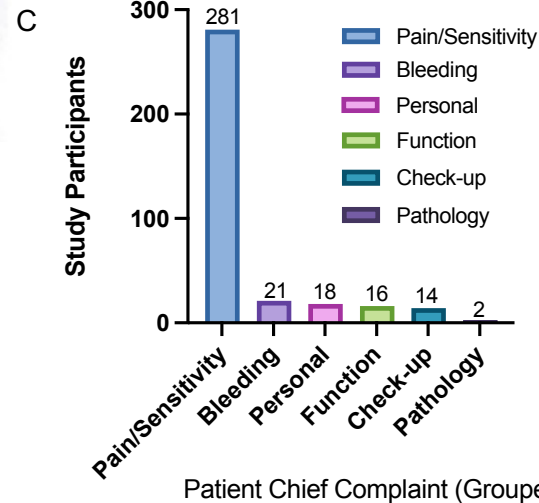
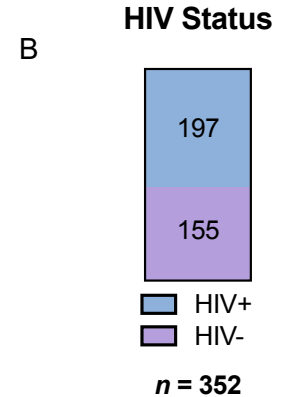
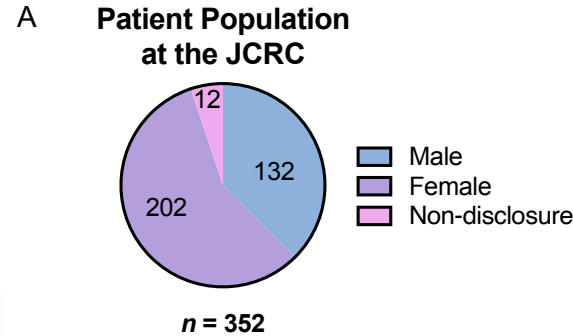
## JCRC Clinic Chart Information:

- Date, age, gender, DOB, phone number, next of kin

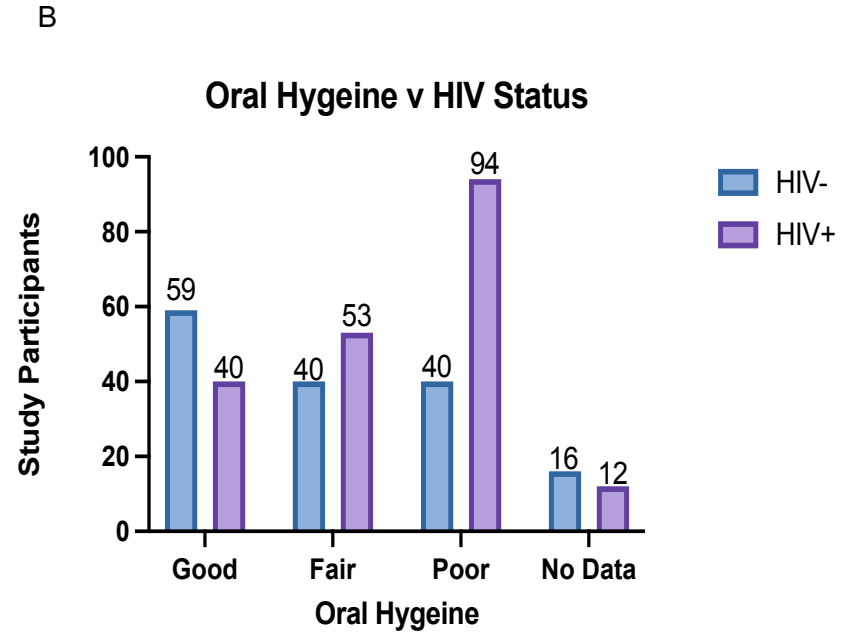
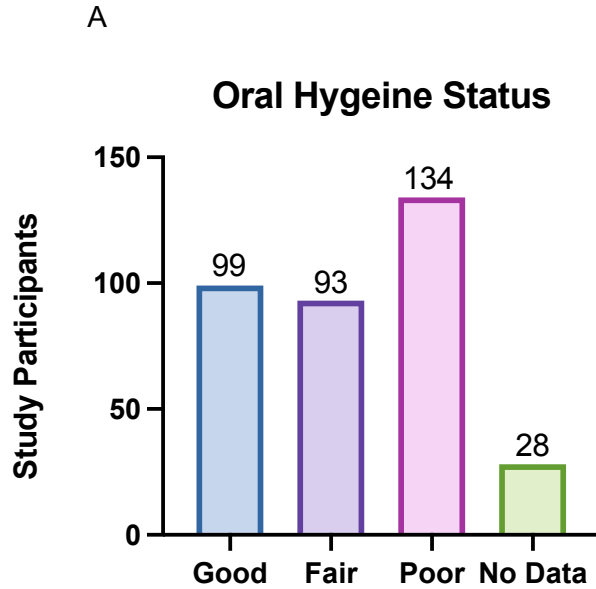


- Presenting complaint, history of presenting complaint, past medical history, family social history, review of systems, oral exam findings, radiographic findings, diagnosis and treatment plan

## Descriptive statistics of the JCRC patient population



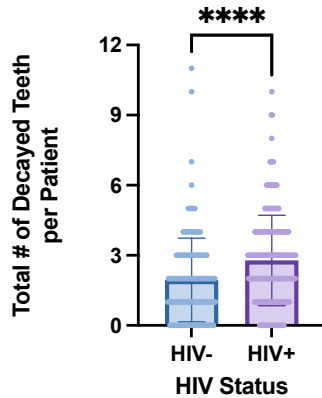
# Descriptive statistics regarding type of oral hygiene of JCRC patients and HIV status



# HIV Status against DMFT values for JCRC patient population

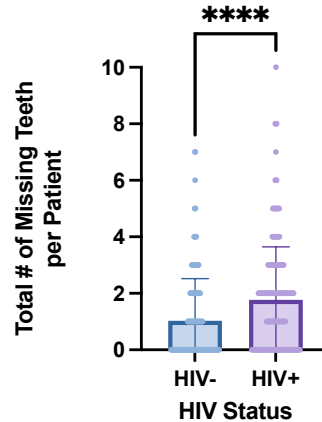
A

Total Decayed Teeth V HIV Status



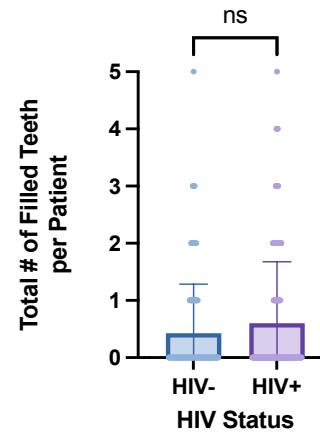
B

Total Missing Teeth V HIV Status



C

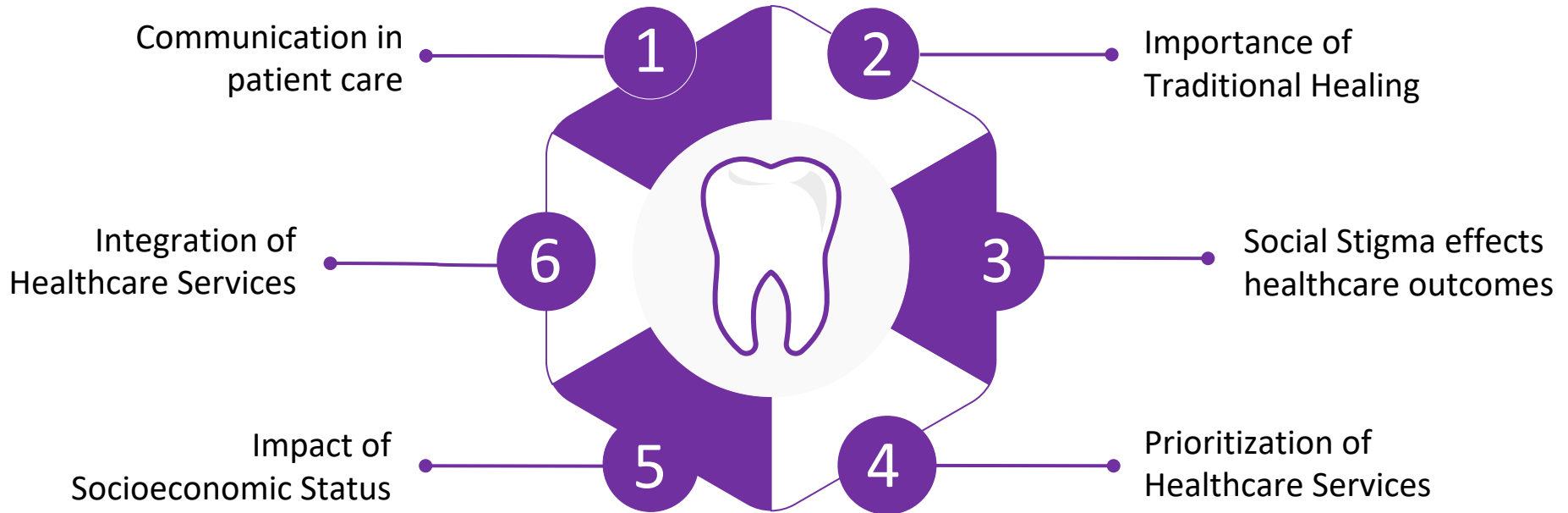
Total Filled Teeth V HIV Status



Unpaired t-test. \*\*\*\* $p < 0.001$  (A/B), and ns  $p = 0.09$  (C).



# Learning Highlights



# Our reflection

## Main Takeaways:

- Have baseline data on dental patients at JCRC
- Interdisciplinary collaboration with Ugandan dentists and scientists, and with Schulich students
- Policy and grant process information
- Social determinants of health from a global perspective

## Future Goals:

- Expand further on collaborative research projects at JCRC
- Self-perceived oral health surveys
- Outreach programs funded by Schulich dentistry and Canadian grants



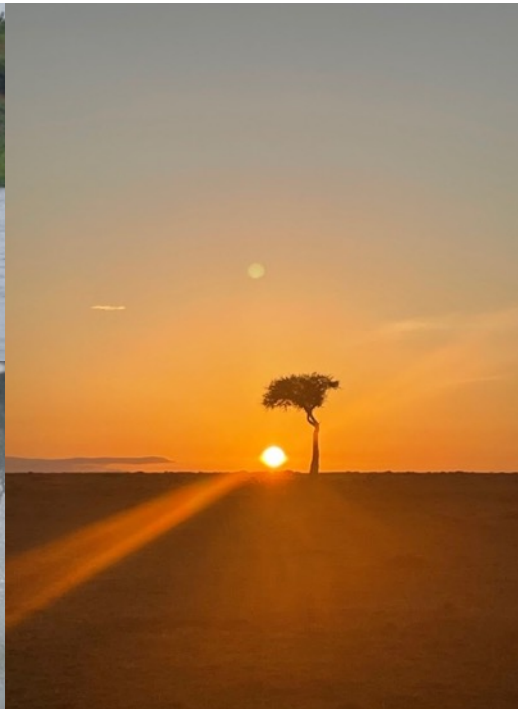
# Cultural Experiences





# Exploring Uganda

- Mountain Gorilla Trekking; White water rafting on the Nile; Safari sunrise and lions



# Acknowledgements



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