Greetings! I am pleased to see that we are different. May we become greater than the sum of both of us.

Vulcan Greeting



# Cervical Cancer Prevention Program in Ethiopia

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#### **Overview**

- Describe the dissemination and implementation study design
- Review results
- Conclusions and challenges



# **Background**

- Approximately 95% of women in low-middle income countries (LMICs) have never been screened for cervical cancer
- 80% of women newly diagnosed with cervical cancer live in LMICs
- Ethiopia has no population-based screening program, and rates of cervical cancer morbidity and mortality are increasing rapidly
- With only four oncologists and one cancer treatment center for 96 million residents, treatment times are significantly delayed, leading to death

# **Purpose**

 The purpose of this study was to assess the feasibility and acceptability of implementing a single visit approach (SVA) program in Ethiopia by training nurses and physicians to perform screening for cervical lesions and treatment.



- SVA is an established and efficacious strategy to control cervical cancer in LMICs
- Successful implementation documented in Thailand, India, etc.



### **Aims**

- Prevalence of cervical cancer
- Frequency of referrals for additional diagnosis and treatment
- Sociodemographic and clinical characteristics of the women screened



# Design

Dissemination and Implementation



### **Methods**

- A non-profit U.S. organization called GO DOC GO trained 17 nurses and physicians to perform visual inspection with acetic acid (VIA), cryotherapy, and loop electrosurgical excision procedure (LEEP).
- The program was implemented at the University of Gondar, Ethiopia, GYN clinic between October 2014 and January 2015.
- Providers training:
  - Over 3 days with half-a-day of pathophysiology and clinical presentation, followed by two-and-a-half days of observation and supervised procedures.

# **Demographic Characteristics**

| Table 1: Demographic Characteristics (n = 402) |      |         |     |     |
|--|------|---------|-----|-----|
|  | Mean | Std Dev | n   | %   |
| Married  |      |         | 326 | 81  |
| Education (Years)                              |      |         |     |     |
| None   |      |         | 260 | 65  |
| 1 to 5 Years                                   |      |         | 19  | 4.6 |
| 6 to 11 Years                                  |      |         | 123 | 31  |
| Age  | 38.9 | 8.3     |     |     |
| Number of Sexual Partners                      | 1    | 0.1     |     |     |
| Number of Pregnancies                          | 3.67 | 2.84    |     |     |
| Number of Live Births                          | 3.22 | 2.72    |     |     |

### Results

- 402 women were screened
- All women offered the program accepted
- The incidence of pre-cancer and invasive cancer was 36% (n=142) and 15% (n=6), respectively
- In logistic regression models, predicting cervical lesions, controlling for age and education, each pregnancy was associated with 1.1 times the odds of presenting with lesions, (CI=1.13-1.21, p<.01)</li>



## Results, continued

 Controlling for age, education and parity, those with an HIV diagnosis had 3.24 times the odds of presenting with lesions (CI=1.90-5.50, p<.0001) than those without a diagnosis of HIV

2 people were referred for additional testing and

diagnoses



### **Conclusions**

- The SVA program was safe, acceptable, and feasible in Gondar, Ethiopia
- Program well accepted in departmental mission
- Departmental plan in place for sustainability



# Challenges

- Garnering the trust of female participants
- Establishing partnership with providers
- IRB approvals across multiple institutions

Translation to ensure content equivalence (procedure,

study consent)

- Shortage of materials such as:
  - acetic acid, purified CO<sub>2</sub> gas,
  - LEEP wires;
  - occasional power interruption



### Thank you to our partners:







