Cost per call analysis of Uliza! Clinicians' HIV Hotline: A telephone consultation service in Kenya

Uliza! Clinicians' HIV Hotline
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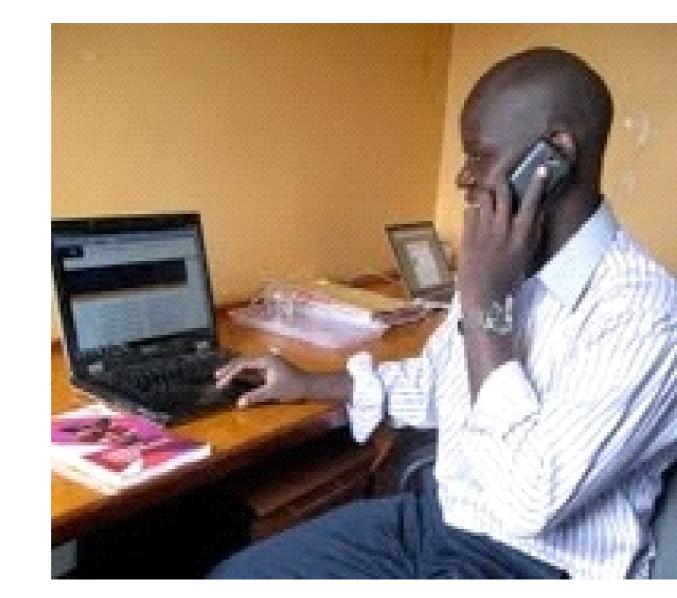
Background

- There has been a massive scale-up of HIV services in Kenya, with decentralization of services to many rural and remote health facilities

- These facilities have very limited access to on-site consultation resources when faced with complex clinical issues

- **Uliza!** (Kiswahili for 'ask') Clinicians' HIV Hotline was launched in 2006 as a telephone consultation service for healthcare workers (HCWs). It provides:

    - Real-time consultation with clinical HIV experts

    - Opportunity to discuss patient management issues

    - Reinforcement of national guidelines

- **Uliza!** is a toll-free service for HCWs in Kenya

How It Works

Remote Dispensary, Suba

Uliza! consultant responding to a call

Study Objectives

- To evaluate cost per call of **Uliza!**

- To determine the cost of setting up a national call center

- To determine the running/recurrent costs of a national hotline service for HCWs

Methods

Cost per call

- Telephone billing records were used to determine average cost per call between January and August 2011

- Personnel time for the consultants included

- Cost per call = airtime cost + consultants' cost

Scale up

- **Service expansion and increased utilization**

    - Current call rate calculated per 1,000 HIV positive patients served by facilities accessing the service

    - Call volume for national scale-up estimated by multiplying current call rate with number of patients in care nationally (projected at 75% of the 1.5 million people living with HIV)

    - Also calculated a five-fold increase in utilization of the hotline (based on experience with targeted marketing of the service)

- **Start-up costs for a centralized call center**

    - Rent deposit, furniture, computer, printer

- **Recurrent scale up cost for maintaining the center and responding to the expected number of calls**

    - Rent, stationary, promotional materials, personnel and communication costs

Results

- A total of 350 calls made during the period between January 2011 to August 2011 were analysed

- Median call duration was 3.2 minutes (IQR 0.98, 5.95)

- Median cost per call was KSH 60.06 (IQR 18.52, 111.06) (USD 0.70 (IQR 0.22, 1.29))

- The start-up cost for a call center will be KSH 376,000 (USD 3,722)

- Monthly recurrent cost at current call rates was estimated at KSH 240,313.76 (USD 2,793.35) based 0.73 calls per month per 1,000 HIV infected patients in care

- Adjusted monthly recurrent cost of KSH 261,567.55 (USD 3,014.48) based on a fivefold increase in utilization to respond to 4,119 calls per month

*USD exchange rate average January-August: KSH 86 = USD 1

Start-Up Costs For A Call Center

ITEM	COST KSH	COST USD
Rental Space Deposit	150,000	1,485
Furniture	100,000	990
Laptop	50,000	495
Printer	20,000	198
Phones	20,000	198
Modem	6,000	54
Books (reference material)	30,000	297
Total	**376,000**	**3,722**

Recurrent Costs

ITEM	Monthly cost at current call rate (KSH)	Monthly cost at current call rate (USD)	Monthly cost based on 5-fold increase in utilisation (KSH)	Monthly cost based on 5-fold increase in utilisation (USD)
Consultants cost	150,000	1,485	150,000	1,485
Rent	50,000	495	50,000	495
Internet cost	5,000	49	5,000	49
Stationery	10,000	98	10,000	98
Promotion material	20,000	198	20,000	198
Airtime	5,313.76	61.79	26,567.55	308.93
Total	**240,313.76**	**2,794.35**	**261,567.55**	**3,014.48**

Limitations

- Inability to filter out a few calls that were not relevant, for example, wrong numbers

Conclusions

- The cost per call is currently KSH 60.06 (USD 0.70) which is reasonably low to contribute to quality patient care

- The cost of setting up a call center with the capacity for national scale-up is KSH 376,000 (USD 3,722), and has the potential for expansion to other disease areas beyond HIV

- Further research should evaluate the impact this service has on the quality of care offered at the facility level, and educational benefit this service may have for HCWs

Acknowledgments

University of California San Francisco

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