Establishing an HIV-AIDS Mortality Study in Cochabamba, Bolivia
Sarah Palmer & Courtney Birchall
University of Massachusetts Medical School, Instituto para el Desarrollo Humano, and El Hospital Clinico Viedma

**INTRODUCTION**

The Instituto para el Desarrollo Humano (IDH) was founded in 1997 in Cochabamba Bolivia with the mission to improve health and human rights. In the region, specifically focusing on HIV prevention and disease management. The most current statistics report that as of 2013 Bolivia had a population of 10.67 million people, and in 2014 UNAIDS estimated that there were 18,000 (13,000-29,000) individuals living with HIV/AIDS in the country. Of these 18,000 people it is believed that only 27% of them receive the necessary antiretroviral treatment needed to manage their HIV. Factors that contribute to the low treatment rate include: unknown or unconfirmed diagnoses, lack of access to healthcare facilities, and abandonment of treatment.

According to the Centros Departamentales de Vigilancia y Referencia de ITS/SIDA (CDVIR), 53 patients with HIV/AIDS died in Cochabamba in 2014. However, the actual number is estimated to be closer to 60 individuals and further information regarding HIV/AIDS mortality in the city of Cochabamba is virtually non-existent. Bolivia was listed by the World Health Organization as one of only two countries in the Americas, the other being Honduras, that fail to produce and confirm diagnoses, lack of access to healthcare facilities, and abandonment of treatment.

**OBJECTIVES**

1) Create a database of information about patients with HIV/AIDS who died in Cochabamba, Bolivia in 2014
2) Establish a sustainable protocol for collecting mortality data on HIV/AIDS patients at Hospital Clinico Viedma and other local health centers.
3) Analyze mortality data from 2014 to highlight the common demographic and medical characteristics among those who died with HIV/AIDS in Cochabamba.
4) Use the results to better direct public health initiatives and clinical practices.

**RESULTS**

Pilot study of clinical patient histories at Hospital Viedma of patients with HIV/AIDS who died in 2014 (n=20)

- Data collected included both demographic and clinical characteristics of each patient.
- Results of this pilot study included:
  - Most common causes of death: sepsis and tuberculosis
  - The majority of patients were under 50 years of age
  - Average length of time between diagnosis and death in patients receiving no treatment was found to be 145.8 days (0-1.2 years) as opposed to those receiving treatment which lived an average of 1141.9 days (0-14 years)
  - However, the majority of patients had been diagnosed for less than 2 years when they died
  - 50% of patients had completed only primary levels of education

**MATERIALS AND METHODS**

Survey used for Pilot Study

**CONCLUSIONS**

The results of the pilot study show some common characteristics among patients who died with HIV/AIDS in Viedma during 2014. These characteristics include: low levels of education, age below 50 years, and death attributed most commonly to extra-pulmonary tuberculosis and to sepsis. It is important to note that this is a pilot study (n=20) therefore our conclusions do not reflect the entire population who died with HIV/AIDS in Cochabamba in 2014 (n=53).

While the medical records provided important data, the pilot study exposed sections of the survey that could not be completed based only on the review of these records. Such missing information included: sexual orientation, socioeconomic status, dates of diagnosis, regularity of appointments, treatment adherence, and even viral load. Based on this lack of available information it was decided that the study would continue in 2 parts: one retrospective and the other prospective.

The retrospective study aims to fill in the information gaps which were found during pilot data collection. In the prospective study, both demographic and medical data will be included on a new survey which will be filled out at two time points: one in an interview with the patient during a routine medical appointment or a hospitalization and another after the patient is deceased. This new survey will include both the previously missing demographic data as well additional information on tuberculosis treatment and prophylaxis.

Our plan is to continue working with IDH and Hospital Viedma to collect and analyze data on HIV/AIDS mortality in Cochabamba using both the retrospective and prospective protocols. Over time, we hope to form a database which can be applied to help inform public health measures as well as clinical decisions in IDH and Viedma, respectively.

**ACKNOWLEDGMENTS**

Special Thanks to:
Dr. Rosario Castro, El Hospital Clinico Viedma
Dr. Edgar Valdez, Instituto para el Desarrollo Humano
Dr. Douglas Golenbock, University of Massachusetts Medical School
Dr. Wayra Salazar

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**CONTACT INFORMATION**

Sarah Palmer: Sarah.Palmer@umassmed.edu
Courtney Birchall: Courtney.Birchall@umassmed.edu