

than those working in HIV prevention (12.12%) or orphan care (13.22%). CBOs are clustered in urban areas and the Southern region where HIV prevalence is highest. Data analysis is ongoing but initial findings suggest that foreign aid, population levels, and support for the ruling political party are positively associated with CBO placement. There is little relationship between a district's health status and CBO activity but CBOs seem to cluster in districts with fewer existing health facilities. After rapid growth in the 2000–2004 period, CBO numbers have recently stabilized.

Implications: We find that CBO formation in Malawi is a largely donor driven response to the HIV/AIDS epidemic that is weakly tied to community health need. However, CBOs operate in areas where few facilities exist and may, therefore, improve service coverage.

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Determinants of health among the border population in three neighborhoods of Tijuana, Mexico

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Background: The public health needs of the border neighborhoods in Tijuana, Mexico are poorly understood. In order to identify disease burden, inaccessible health services and areas for intervention, a needs-assessment was performed in three separate low-income neighborhoods in Tijuana.

Methods: Using an original survey based on basic needs-assessment models, bilingual volunteers interviewed household representatives who presented to a visiting free clinic in three separate low-income neighborhoods in Tijuana. These free clinics are run by a non-for-profit organization that provides primary and urgent care clinic in these neighborhoods every three months.

Findings: There were a total of 116 households captured by the survey (51 at Site A, 50 at Site B, and 15 at site C). There were common themes among the three sites as well as unique opportunities for intervention at Sites B and C. We found that education and employment were low in all sites, that the majority of residents (excepting Site C) have health insurance that may cover doctor visits but does not allow for medication purchases or purchasing of ancillary studies. Diabetes mellitus and hypertension accounts for the majority of health problems. Medical care during pregnancy and for childbirth is relatively accessible to all for low cost.¹ Finally, none of the sites had access to the hospital via EMS in the case of an emergency. In terms of unique needs, Site B had a high incidence of asthma, possibly due to toxic air pollution as the area was formerly a city dump.² Site C had the lowest rate of education and employment and had minimal access to doctors, medications, sufficient clean water, and basic medical care.

Interpretation: This needs assessment evaluated three separate neighborhoods in Tijuana, Mexico and has provided valuable information regarding determinants of health in these populations including health care access, prevalence of medical problems, and environmental exposures. This survey has also highlighted several areas for public health intervention in the future.

Funding: None.

- 1 Ramírez-Zetina, M., Richardson, V., Avila, H., et al. (2000). La atención prenatal en la ciudad fronteriza de Tijuana, México. *Revista Panamericana de Salud Pública*, 7(2), 97–101.
- 2 Al-Delaimy, W.K.; Larsen, C.W.; Pezzoli, K. Differences in Health Symptoms among Residents Living Near Illegal Dump Sites in Los Laureles Canyon, Tijuana, Mexico: A Cross Sectional Survey. *Int. J. Environ. Res. Public Health* 2014, 11, 9532–9552.

Abstract #: 1.006_GOV

Trends of comorbidities in taiwanese patients infected with multi-drug resistant tuberculosis in seeking favorable treatment outcomes

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Background: Multi-drug resistant tuberculosis (MDRTB) accounts for 3.5% of new tuberculosis (TB) cases globally and is a major public health problem with potential global threats. Patients with comorbidities further complicate the complex treatment of MDRTB. Studies have shown that MDRTB patients with comorbidities have poorer treatment outcomes. The aim of this study is to evaluate clinical characteristics in MDRTB patients at TIHTC Taipei Hospital, Taiwan and raise awareness to help establish effective treatment regimens among comorbid patients infected with MDRTB.

Methods: As a retrospective study, data for 26 patients with MDRTB from the years 2009 to 2014 was gathered from the TIHTC Taipei Hospital. The independent variables in the data included age, drug treatment regimen, drug sensitivities, and type as well as number of comorbidities. Trends were observed on the variables of age and the various comorbidities with the MDRTB patients.

Findings: The sample (N=26) consisted of 16 males (61.5%) and 10 females (38.5%) and the mean age (\pm SD) of the patients with MDRTB was 58.3 ± 19.4 years. Patients with at least one comorbidity was 50.0% (N=13) and at least two comorbidities was 25.9% (N=7). 68.8% (N=11) of the males and 20.0% (N=2) of the females had at least one comorbidity in addition to the MDRTB infection. There were higher percentages of MDRTB patients presenting with hypertension, 23.1% (N=6), and cancer, 15.4% (N=4). Other comorbidities included diabetes mellitus, 11.5% (N=3), hepatitis B, 7.7% (N=2), anemia, 7.7% (N=2), and miscellaneous-grouped diseases, 38.5% (N=10). Out of the 13 patients with comorbidities, hypertension counts 46.2% (N=6).

Interpretation: This study suggests that patients infected with MDRTB at Taipei Hospital tend to be male (68.8%) over female (20.0%) and altogether have a higher probability of having comorbidities (38.5%). Among the MDRTB patients with comorbidities, hypertension counts 46.2%, suggesting that hypertension is the most likely comorbidity in MDRTB patients received at Taipei Hospital. Because many anti-hypertension drugs are associated with serious toxicities, which can complicate the management of MDRTB, it