Urban Health Bulletin: A Compendium of Resources
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Introduction

The Urban Health Bulletin is a periodic update of USAID and non-USAID studies and information on a range of urban health issues. This issue provides links to three urban health website updates, three recent research reports, and abstracts of seven recently published journal articles. I would like to particularly highlight (1) the State of Urban Health Reports available on the UHRC website – excellent practical packaging of information for policymakers, and (2) the Journal of Urban Health article by David *et al.* – many would agree with their summary of key urban health challenges.

We welcome your comments and suggestions for making the Bulletin more useful to you. If you are not already, please send your email address to receive future Urban Health Bulletins.

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Website Updates

- African Population and Health Research Centre
  - *Heavy disease burden among Nairobi's poor is preventable* - Research findings show that more than 90% of the conditions causing death among children and adults living in Nairobi's slum settlements can easily be prevented or treated.

- Environmental Health at USAID – Urban Health
  - *In the News – Urban Health in Asia* presentation at the Woodrow Wilson International Center for Scholars.

- Urban Health Resource Centre/India (UHRC) – To better inform state-level urban health programming efforts, UHRC has begun publishing a series of reports that characterize the health of the urban poor in various states using recent National Family Health Survey (NFHS-2) data and additionally analyze state policies and programs aimed at improving the health of the urban poor. Currently the following three reports can be downloaded at no charge after registering with the UHRC website:
  - *The State of Urban Health in Rajasthan*, March 2007
  - *The State of Urban Health in Uttar Pradesh*, March 2007
  - *The State of Urban Health in Madhya Pradesh*, March 2007

Research Reports/Publications

- World Bank Research on the Urbanization of Global Poverty, March 21, 2007 - The authors provide new evidence on the extent to which absolute poverty has urbanized in the developing world, and the role that population urbanization has played in overall poverty reduction. They find that about one-quarter of the world's consumption poor currently live in urban areas and that this proportion has been rising over time. By fostering economic growth, urbanization helped reduce absolute poverty in the aggregate but did little for urban poverty. Over 1993-2002, the count of the "$1 a day" poor fell by 150 million in rural areas but rose by 50 million in urban areas. While a majority of the world's poor will live in rural areas for decades to come, there are marked regional differences: Latin America has the most urbanized poverty problem, East Asia has the least; there has been a "ruralization" of poverty in Eastern Europe and Central Asia; in marked contrast

to other regions, to date African urbanization has not been associated with falling overall poverty.

- UN-HABITAT: HIV/AIDS Checklist for Water and Sanitation Projects, 2006, is aimed at professionals working within UN-HABITAT's, water and sanitation projects. It is a reference guide on how to deal with the issues raised by HIV/AIDS in the project cycle and to help practitioners in the water and sanitation sector design appropriate HIV/AIDS strategies, components and indicators to respond to the pandemic.

- South Africa - Prepaid water meters have a negative impact on hand washing, May 15, 2007. A report titled "The Problem of Hand washing and Paying for Water" based on research that involved 107 households from Soweto in Johannesburg concludes that "in general, hygiene behaviours were worse in households that were being supplied by the prepaid method" vs. those who were still on "deemed consumption."

Recently Published Journal Articles

1 - J Urban Health. 2007 Apr 12.

The Prevention and Control of HIV/AIDS, TB and Vector-borne Diseases in Informal Settlements: Challenges, Opportunities and Insights.

David AM, Mercado SP, Becker D, Edmundo K, Mugisha F. Email: amdavid@guamcell.net

Today's urban settings are redefining the field of public health. The complex dynamics of cities, with their concentration of the poorest and most vulnerable (even within the developed world) pose an urgent challenge to the health community. While retaining fidelity to the core principles of disease prevention and control, major adjustments are needed in the systems and approaches to effectively reach those with the greatest health risks (and the least resilience) within today's urban environment. This is particularly relevant to infectious disease prevention and control. Controlling and preventing HIV/AIDS, tuberculosis and vector-borne diseases like malaria are among the key global health priorities, particularly in poor urban settings. The challenge in slums and informal settlements is not in identifying which interventions work, but rather in ensuring that informal settlers: (1) are captured in health statistics that define disease epidemiology and (2) are provided opportunities equal to the rest of the population to access proven interventions. Growing international attention to the plight of slum dwellers and informal settlers, embodied by Goal 7 Target 11 of the Millennium Development Goals, and the considerable resources being mobilized by the Global Fund to fight AIDS, TB and malaria, among others, provide an unprecedented potential opportunity for countries to seriously address the structural and intermediate determinants of poor health in these settings. Viewed within the framework of the "social determinants of disease" model, preventing and controlling HIV/AIDS, TB and vector-borne diseases requires broad and integrated interventions that address the underlying causes of inequity that result in poorer health and worse health outcomes for the urban poor. We examine insights into effective approaches to disease control and prevention within poor urban settings under a comprehensive social development agenda.

2 - Indian J Pediatr. 2007 Feb;74(2):131-4.

Immunization in urbanized villages of Delhi.

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OBJECTIVE: To assess the immunization coverage of BCG, DPT, OPV, Measles, MMR and Hepatitis B vaccines in two urbanized villages of East Delhi and study the factors affecting the coverage. METHODS: Children of age 24-47 months were selected using systematic random sampling. Information on socio-demographic factors and immunization status was obtained by house-to- house visit. Immunization coverage of all vaccines was computed and analysis of association between immunization coverage and socio-demographic

factors was done. RESULTS: The coverage levels were 82.7% for BCG, 81.5% for DPT/OPV 1, 76.8% for DPT/OPV 2, 70.7% for DPT/OPV 3 and 65.3% for measles vaccine. It was 41.4% and 41.6% for DPT booster and MMR vaccine. Higher education of mother (OR=1.96) and father (OR=1.80), father's occupation (OR=1.86), residential status (OR=1.76), place of birth (OR=2.64) and presence of immunization card (OR=5.8) were significant determinants for complete immunization on univariate analysis. On regression analysis mother's education (OR=1.43), presence of immunization card OR=2.05 and place of birth (OR=3.80) remained significant. CONCLUSION: Immunization evaluation surveys have shown a wide variation across regions, states and different strata of the society.

3 - Child Care Health Dev. 2007 May;33(3):230-5.

Unmet health, welfare and educational needs of disabled children in an impoverished South African peri-urban township.

Saloojee G, Phohole M, Saloojee H, Ijsselmuiden C.

BACKGROUND: Childhood disability in South Africa has failed to receive adequate attention from governmental agencies, such as the health, education and social welfare departments, despite there being more than 1 million disabled children in the country. This study sought to assess the unmet rehabilitation, education and welfare needs of disabled children living in a peri-urban township. METHODS: As no register of disabled children existed, snowball sampling was used to recruit a convenience sample of 156 disabled children living in Orange Farm township near Soweto, South Africa. Children's impairments, their health and educational needs, and the availability and utilization of services were assessed using a structured interview. RESULTS: Few disabled children attended pre-school (35%) or school (44%). Only a quarter (26%) of children in need of rehabilitation received such services. Children with motor impairments were more likely to receive rehabilitation than those with intellectual impairment (44% vs. 8%, $P < 0.0001$). Of the 233 assistive devices required, only 64 (28%) had been issued. Less than half (45%) of the children entitled to a social assistance grant were receiving it. Lack of money, limited awareness about available services, and bureaucratic obstacles were the main reasons offered by care givers for the low utilization of available services and resources. CONCLUSION: Children with disabilities living in Orange Farm are not enjoying the rights and services to which they are entitled. Innovative, coordinated service delivery strategies, and better-informed caregivers combined with community recognition of, and support for, the needs of disabled children are required to address these unmet needs.

4 - BMC Public Health. 2007 May 3;7(1)

Hyperendemic pulmonary tuberculosis in peri-urban areas of Karachi, Pakistan.

Akhtar S, White F, Hasan R, Rozi S, Younus M, Ahmed F, Husain S, Khan BS.

BACKGROUND: Currently there are very limited empirical data available on the prevalence of pulmonary tuberculosis among residents of marginalized settings in Pakistan. This study assessed the prevalence of pulmonary tuberculosis through active case detection and evaluated predictors of pulmonary tuberculosis among residents of two peri-urban neighbourhoods of Karachi, Pakistan. METHODS: A cross-sectional study was conducted in two peri-urban neighbourhoods from May 2002 to November 2002. Systematic sampling design was used to select households for inclusion in the study. Consenting subjects aged 15 years or more from selected households were interviewed and, whenever possible, sputum samples were obtained. Sputum samples were subjected to direct microscopy by Ziehl-Neelson method, bacterial culture and antibiotic sensitivity tests. RESULTS: The prevalence (per 100,000) of pulmonary tuberculosis among the subjects aged 15 years or more, who participated in the study was 329 (95% confidence interval (CI): 195 - 519). The prevalence (per 100,000) of pulmonary tuberculosis adjusted for non-sampling was 438 (95% CI: 282 - 651). Other than cough, none of the other clinical variables was significantly associated with pulmonary tuberculosis status. Analysis of drug sensitivity pattern of 15 strains of Mycobacterium tuberculosis revealed that one strain was resistant to isoniazid alone, one to streptomycin alone and one was resistant to isoniazid and streptomycin. The remaining 12 strains were

susceptible to all five drugs including streptomycin, isoniazid, rifampicin, ethambutol, and pyrazinamide. CONCLUSIONS: This study of previously undetected tuberculosis cases in an impoverished peri-urban setting reveals the poor operational performance of Pakistans current approach to tuberculosis control; it also demonstrates a higher prevalence of pulmonary tuberculosis than current national estimates. Public health authorities may wish to augment health education efforts aimed at prompting health-seeking behaviour to facilitate more complete and earlier case detection. Such efforts to improve passive case case-finding, if combined with more accessible DOTS infra-structure for treatment of detected cases, may help to diminish the high tuberculosis-related morbidity and mortality in marginalized populations. The economics of implementing a more active approach to case finding in resource-constrained setting also deserve further study.

5 - Trop Med Int Health. 2007 Apr;12(4):503-10.

Social and environmental determinants of Aedes aegypti infestation in Central Havana: results of a case-control study nested in an integrated dengue surveillance programme in Cuba.

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OBJECTIVE: To characterize the social and environmental risk factors associated with the presence of Aedes aegypti in order to improve community dengue control. METHODS: A case-control study with 'cases' being households with entomologically confirmed A. aegypti infestation; personal interviews in Central Havana, a densely populated inner city area characterized by overcrowded housing and irregular water service. The participants were residents of 278 houses with infestation and 556 houses without infestation. RESULTS: Greater risk of infestation was associated with lack of preventive measures, such as no larvicide in the water tanks (OR = 2.21) and use of flower vases for religious practice (1.93), not being economically active (1.64), vulnerable populations with higher risks in households with older people (1.52) and households with children (1.94). CONCLUSIONS: Efforts to reduce infestations should continue to focus on water tank sanitation and improving housing conditions, but also engage community religious leaders to help promote safe practices. Vulnerable populations should be especially targeted by prevention activities. A surveillance programme can produce evidence to guide interventions.

6 - East Afr Med J. 2006 Nov;83(11):602-9.

Influence of urbanisation on asymptomatic malaria in school children in Molyko, South West Cameroon.

Kimbi HK, Nformi D, Patchong AM, Ndamukong KJ.

OBJECTIVE: To determine the impact of urbanisation on the prevalence of asymptomatic malaria in Molyko, a rapidly urbanising area of South West Cameroon. DESIGN: A cross-sectional study. SETTING: Molyko, South West Province Cameroon. SUBJECTS: One hundred and sixty six and two hundred and forty four randomly selected children in Molyko in the rainy seasons of 2000 and 2004 respectively. Main outcome measures: Prevalence and geometric mean parasite density of asymptomatic malaria, measurement of axillary temperatures and haematocrit (PCV) values in 2000 and 2004. RESULTS: There was a significant association between axillary temperature and malaria parasitaemia in both years ($p<0.05$). Overall, the prevalence of asymptomatic malaria and parasite density values in all age groups in 2004 were lower than in 2000 while the reverse was the case with PCV values. CONCLUSION: Urbanisation in Molyko has likely reduced the level of malaria endemicity in the area. It is advisable to repeat this study over a period of time in order to assess the long-term effects of urbanisation in the study area.

7 - Med Princ Pract. 2007;16(3):240-3.

Prevalence of malaria during pregnancy and antimalarial intervention in an urban secondary health care facility in Southern Nigeria.

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OBJECTIVE: To investigate the prevalence of malaria during pregnancy and antimalarial interventions in an urban secondary health care facility. SUBJECTS AND METHODS: Of 432 pregnant women who delivered or were attending an antenatal clinic in a secondary health care facility in Benin City, Nigeria, 199 were recruited for the study. Demographic data were obtained from the pregnant women at delivery, and maternal peripheral, placental, and cord blood samples were collected for microscopy. Among the antenatal clinic attendees, a questionnaire was used to assess their antimalarial preventive measures. RESULTS: Of the 199 pregnant women, 60 (30%) reported that they had had malaria during the preceding 3 months, and a majority of them (85%) used chloroquine. Almost all reported the drug was efficacious (98%) and well tolerated (80%). Only 18 (13%), 14 (10%), and 2 (1%) of the women had positive maternal peripheral, placental, and cord blood parasitaemia, respectively. The geometric mean (+/- SD) numbers of malaria parasites per microliter were 636.06 +/- 1,450.11 in peripheral blood, 4,250.36 +/- 13,866.01 in placental blood, and 59.50 +/- 27.58 in umbilical cord blood. Only 31 (12%) and 13 (5%) of antenatal women believed in the efficacy of insecticide-treated bed nets or sulphadoxine/pyrimethamine-based intermittent preventive therapy as antimalarial preventive measures, respectively, while 23 (9%) and 31 (12%), respectively, reported they currently use them. CONCLUSIONS: Despite the common occurrence of malaria during pregnancy, there was a limited knowledge and use of the recommended antimalarial interventions by pregnant women attending the antenatal clinic of this health care facility. There is, therefore, an urgent need to increase the implementation of antimalarial interventions during pregnancy.