seen. Boys had slightly higher prevalence of under nutrition (7.9%) than girls (4.8%) and children aged 4–5 years showed the highest prevalence (7.3%). The overall prevalence of parasitic infections was 34.5% (71/206). Two species of parasites were identified; Ascaris lumbricoides (28.5%, 59/206) and Entomeaba coli (10.6%, 22/206). Children with Ascaris infection showed higher prevalence of MAU (10.2%, 6/59) than children infected with Entomeaba coli infections (9.1%, 2/22). No statistically significant association between intestinal parasitic infections and acute under nutrition was found in this study.
Interpretation: Acute energy under nutrition is not common in this study group, though high prevalence of intestinal parasitic infections was seen, indicating a high level of transmission. Health education and awareness programs among the study population could be effective for addressing the problem.
Funding: No any funds for this study.
Abstract #: *01CD008*

The need for structural and community interventions to support HIV care and harm reduction for people who inject drugs in Kenya

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Background: Injecting of heroin is a significant human rights and public health challenge in Sub-Saharan Africa. In Kenya People Who Inject Drugs (PWID) face severe vulnerability to HIV and other infectious diseases and social harms. Government and civil society partners have sought to increase access to HIV care, including antiretroviral treatment, and introduced needle and syringe programmes; methadone to treat heroin addiction is also planned. This study explores how the new services are experienced by PWID with the goal of informing their scale-up and the future introduction of methadone.
Methods: We conducted a longitudinal qualitative study across three sites: Nairobi, Malindi and Ukunda. In-depth interviews in English and Kiswahili with PWID, community observation, and stakeholder interviews explored the social context and experiences of HIV care. Baseline interviews with 109 people who use drugs (majority people injecting, 76 male, 33 female) were conducted in Dec 2012/Jan 2013, with follow-up at 6 and 12 months with 33 PWID. Sampling purposively sought a range of experiences of HIV care and injecting drug use by both genders. Thematic content analysis identified factors shaping access to services. Written consent was obtained from all participants; the study has ethical approval from University of Nairobi and LSHTM.
Findings: For the majority of PWID, life involves considerable hardship. The risk or experience of HIV is frequently accompanied by hunger, homelessness, social isolation, violence and harassment from the community and police, and imprisonment, reflecting an environment of criminalisation and marginalisation of PWID. The associated poverty limits access to care and creates risk for HIV: HIV care is free, but is focused in clinic facilities, involving considerable direct costs for travel and opportunity costs for earning money. Drug rehabilitation is too expensive for most. Available services are delivered with few restrictions on PWID, and yet programs are under-resourced and rarely linked to interventions that address economic and social constraints on PWID, despite recognition of their importance.
Interpretation: The limited availability, biomedical orientation, and disconnect from community settings of services means they don't respond adequately to the barriers PWID face to care. Services need a community orientation and associated structural interventions to address needs like food, livelihoods and social support. The lack of systematic support for community and structural interventions from government and donors suggests the potential emergence of a narrow biomedical paradigm for the response to HIV for PWID in Kenya. In the absence of integrating such structural interventions, methadone rollout will likely remain inaccessible for many PWID and not meet current expectations as a treatment for heroin addiction. This study has direct implications for service provision and strategies to ensure structural and social dimensions of HIV care for PWID are addressed.
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Parental factors associated with influenza school located vaccination program in the United States

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Background: The United States Center for Disease Control and Prevention's (CDC) Advisory Committee on Immunization Practices expanded recommendations on targeted influenza vaccination to include school-aged children in 2009. In this study, we conduct a systematic review to identify the parental factors associated with influenza school located vaccination (SLV) program in the United States.
Methods: We used the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) framework to conduct the systematic review. PubMed, Web of Science, and Medline ProQuest databases were searched for English language articles published since 2004 and focused on child/adolescent age groups. Inclusion criteria were studies that included qualitative analysis of influenza vaccinations through a school-based vaccination program in United States, and assessed parental factors including knowledge, attitudes, perceptions, beliefs, and/or behavior towards such programs for their children. Exclusion criteria were studies that included other non-influenza vaccines (i.e. MMR, MCV4), non-parental beliefs (i.e. college students, school personnel, nurses, physicians), infrastructure (i.e. health care billing systems, cost-effectiveness), and studies taking place outside the United States.
Findings: We identified 6 studies from 107 articles that matched the inclusion and exclusion criteria. 5 studies utilized questionnaires and 1 study used focus groups as primary source of data collection, with 1 study grounded in health behavior theory. While parents generally exhibited signs of interest in school-based vaccination programs, the reasons for disinterest were varied. The significant parental factors associated with influenza school located vaccination program are vaccine safety, sterility and delivery, perceived threat, parent demographics, convenience, negative past experience, influenza vaccine importance, cost, access to primary care/insurance, discussion with doctor, trust, previous experience with SLV program, vaccine type, vaccine availability to all students, public health benefits, and beliefs in vaccination is a social norm and their benefits.
Interpretation: We identified cost, convenience and misconceptions regarding safety and side-effects as barriers to vaccination. Thereby, the effectiveness is higher among influenza SLV programs that resolve these barriers. Socio-demographics of parents are significant for their receptiveness of influenza SLV programs. We recommend that information regarding insurance status, estimates for family income and basic beliefs of vaccination be used to customize the SLV program design and implementation. Targeting schools with a high percentage of uninsured and low-income teens for vaccination may be particularly

effective. Limitations in the included studies were low response rate and the inability to generalize findings to other school communities.
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Prevalence and clinical predictors of tuberculosis in severely malnourished Ugandan children

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Background: TB contributes to increased morbidity and mortality in children with vulnerable immune systems such as the severely malnourished, HIV infected or the infants. Clinical features might be poor predictors of active TB infection especially in children with severe malnutrition. This study determined the prevalence; estimated additional yield of TB cases on routine screening compared to targeted screening approach and studied the clinical predictors of tuberculosis disease in children between 2 months and 5 years with severe acute malnutrition.
Methods: A cross sectional study of newly admitted children with severe malnutrition aged between 2 months and 5 years was conducted between March and September 2014 at Mbarara Regional Referral Hospital. Written informed consent was obtained from guardians. A detailed history, general physical examination, and investigations which included specimen collection by gastric, nasopharyngeal and or lymph node aspirate methods, as well as TST and CXR were done. Children were classified according to level of certainty of TB diagnosis as "confirmed", "probable", "possible" or "TB unlikely". The proportional yield by routine screening and subgroup of targeted screening was determined. Logistic regression was done to determine independent predictors of TB.
Findings: A total of 172 children had complete TB evaluation. The prevalence of confirmed/probable TB (TB cases) was 6.4% (11/172); Of the 11 TB cases, 4 were confirmed; 3 of whom had a positive smear, Xpert/MTB/RIF and culture results while 1 had a smear positive result only. Although, there was no statistical difference in TB yield between targeted and routine screening of TB in this population (p-value>0.05), there were 4 more TB cases identified through routine screening. Severe wasting, cervical lymphadenopathy and age group below 1 year had a statistically significant association with tuberculosis (p=0.0002).
Interpretation: We found a high prevalence of TB cases using NIH criteria, but low rates of Xpert/culture-confirmed TB among severely malnourished hospitalized children. Due to very unspecific presentation of TB in this population, evidenced by lack of statistical associations with documented predictors of TB, routine screening of all severely malnourished children for TB may offer clinical benefits
Funding: JCRC/COHRE NIH grant for students, Epicentre Mbarara research Centre.
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Acceptability of latent tuberculosis testing among migrant farmworkers along the US-Mexico border

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Background: One-third of the world's population is infected with latent tuberculosis (TB). The overall lifetime risk of latent tuberculosis infection (LTBI) progression to active TB is estimated at approximately 5-10%, with risk increased by underlying immunosuppression, including HIV, diabetes and heavy steroid use. Completing treatment for LTBI reduces the risk of infection by 90%. The migratory agriculture industry in particular is considered to pose one of the most hazardous working environments for adults and children alike. Farmworkers account for more than 5% of all employed TB cases in the United States with an estimated risk six times greater than the general population. LTBI is routinely diagnosed with the tuberculin skin test (TST) along the Arizona-Mexico border. New methods of detection more specific than TST have been developed, such as Quantiferon TB gold In-Tube (QFT-GIT). Our objective was to demonstrate the acceptability of QFT-GIT testing to detect LTBI among farmworker populations.
Methods: A cross-sectional design was used to study migrant farmworkers 18 year and above working on the Arizona-Mexico border. Participants' blood samples were taken for QFT-GIT and TST was administered through a mobile van clinic. We assessed knowledge, attitude and practices concerning LTBI as well as acceptability of the two screening tests through questionnaires administered by trained personnel. Fifty-four participants have been recruited to date. Fisher's exact test was used in bivariate comparison of categorical outcomes.
Findings: Among 54 participants interviewed, 40 (74.1%) saw TB as a very serious disease that results in death and 42 (77.8%) considered TB a health concern in their community. Forty participants (74.1%) stated they would believe QFT-GIT rather than TST results. Fifteen individuals (27.8%) would seek treatment based on a positive QFT-GIT test compared to 3 (5.6%) who would seek treatment based on a positive TST (P-value: 0.004).
Interpretation: Farmworkers considered themselves at risk for TB and saw TB as a health concern although a low proportion would seek treatment for LTBI. The majority of respondents believed QFT-GIT over TST results and a greater proportion would seek treatment based on the QFT-GIT. The small sample size may be a limitation to being adequately powered to assess significance, but we will be continuing the project this winter.
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Ebola outbreak in Nigeria: Volunteer health advisors as information disseminators

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Background: As the first confirmed case of Ebola reached Nigeria in July 2014, a mechanism was required to disseminate reliable health information and prevent the spread of misinformation especially in rural, hard-to-reach areas. The aim of this project was to assess the baseline knowledge of trained lay Volunteer Health Advisors (VHA) participating in the Healthy Beginnings Initiative (HBI), a community-based program designed to promote maternal-child health, and to determine the feasibility of utilizing them to disseminate information on Ebola.