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Background: In the United States, antibiotic resistance complicates serious infections in over 2 million people a year, leading to health and economic impacts. Because 80% of antibiotics are sold for animal production, concern is growing over livestock's contribution to antibiotic resistance in humans. Although many bacterial species that cause pneumonia are found in livestock facilities, the potential impact of livestock production on antibiotic resistant pneumonia has been largely unexplored. This study aims to determine the antibiotic resistance rate in bacterial pneumonia (BP) in the US vulnerable population and its spatio-temporal pattern, focusing on Streptococcus pneumoniae (ICD9CM: 481) and Pseudomonas spp. (ICD9CM: 482.1) and resistance to the top antibiotic classes in livestock production, tetracyclines and penicillins.
Methods: We Abstracted all hospitalization records related to pneumonia (ICD-9-CM Codes 480-488) from the Centers for Medicare and Medicaid Services (CMS) dataset for years 1991- 2006 in adults aged 65 and older. Each record contains information on 10 diagnostic codes, including laboratory-confirmed resistance, residence zip code, average length of stay, and direct charges.
Findings: Out of 16,363,215 hospitalizations related to pneumonia, 3,231,256 (19.7%) cases were due to BP. S. pneumoniae and Pseudomonas spp. were the most common causes of BP and responsible for 516,634 (15.9%) and 465,295 (14.3%) cases, respectively, of which 0.65% and 1.54% of cases were resistant. Of these, 3.4% and 6.8% were multi-drug resistant, respectively. A resistance rate of 4.3% among BP hospitalizations was driven by Staphylococcus aureus, associated with over 20% of resistant cases. The proportion of resistant BP cases increased by 0.5% per year. In 5 states (CT, WV, KY, CA, NC) the proportion of resistant BP exceeded the national average by 20%.
Interpretation: Although S. pneumoniae is not common to farms, it may derive antibiotic resistance from emissions, such as through horizontal gene transfer. Pseudomonas spp. have been detected in livestock facilities and show potential for zoonotic transmission. Many risk factors may contribute to the high rate of resistant BP, including high human antibiotic use (as in KY and WV), high animal productions (as in NC and CA, top swine and dairy producers, respectively), or regulations that influence the extent contaminants enter the environment (as CA's weak requirements for NPDES permits). Such risk factors must be further explored. We are now correlating this dataset spatially to the county level livestock density derived from the USDA NASS Annual Surveys and Agricultural Census. As developed previously by Jagai et al, the livestock data combined with human population census allows creation of four exposure categories to compare rates of antibiotic resistance across counties with high/ low livestock and high/ low human density. The results of the analysis will be presented.
Abstract #: *01SEDH015*

Meanings of fatherhood in urban Tajikistan

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Background: Increasing attention has been devoted to understanding the impact of fathers' involvement with their children on health. Available literature on fatherhood in countries throughout the world is limited, particularly in Asian Muslim societies. This formative study aimed to begin to fill that gap with research on urban Tajik fathers' perspectives about their paternal roles, their meanings of being a "good father", as well as their conceptualizations of the rewards, constraints and difficulties of fatherhood.
Methods: Through personal contacts and snowball sampling, 30 fathers with children ages 0 to 19 years old living in an urban area of Tajikistan were recruited to participate in the study. The first author conducted open-ended interviews in Russian using Skype or in person using a pre-defined interview guide that focused on the following themes: fathers' childcare responsibilities, definition of a "good father", the best and most difficult thing about being a father and key fatherhood constraints. Interviews lasted, on average, 20 minutes. The thematic analysis method guided data coding and analysis.
Findings: Respondents ranged from 28 to 59 years old and had one to five children. Using Palkovitz's conceptual framework on parental involvement, we clustered responses regarding respondents' childcare responsibilities into three broad domains: behavioral domain (e.g., shared activities, teaching and educating, communication, providing), affective domain (e.g., thought processes and monitoring) and cognitive domain (e.g., affection and emotional support). Results also revealed that respondents' definitions of a "good father" centered on five axes: (1) provider, (2) mentor/teacher, (3) nurturer, (4) care giver and (5) friend. Fathers identified several constraints that affect their fatherhood experiences, including work and education responsibilities, age and gender of their children, responsibility of fatherhood, effective disciplinarian approaches and inability to meet children's expectations. Most respondents commented on the joy, happiness, prosperity, inspiration and support fatherhood brought to them.
Interpretation: Our findings provide opportunities for service providers and public health experts to better understand how urban Tajik fathers define their paternal responsibilities and the factors that are shaping their fatherhood experiences. These results may be useful for policy makers to define policies and programs that should be implemented in order to reduce gender disparities in care-giving practices in families and to encourage fathers to be more involved in childcare. The results provide a foundation for future research.
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High uptake of a women-only and sex work-specific drop in centre: independently linked to sexual and reproductive health care for sex workers

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Background: Women sex workers (SWs) face high sexual and reproductive health (SRH) disparities globally, and there has been increasing recognition of the need for women-centred care and sex work tailored services to address these disparities. Most successful strategies to improve SWs' access to HIV care have been based on community empowerment models in low and middle-income country settings. This study longitudinally examined the uptake of a women-only and sex-work-specific drop-in service (WISH Drop-In Center) and its impact on SWs' access to SRH services.
Methods: Data were drawn from a community-based, prospective cohort of 547 women SWs (2010-2013), known as AESHA (An Evaluation of Sex Workers Health Access), in Vancouver, British