

Interpretation: Many chemicals found in analyzed water samples are known neurotoxins, teratogens, endocrine disruptors, and carcinogens. Of the 35 chemicals found: 4-nonyphenol and P-octylphenol are endocrine disruptors that have been shown to upregulate oncogenes that are linked to breast and ovarian cancer; several phthalates like di-n-octylphthalate may cause testicular atrophy and infertility; and N,N-diethylthiourea has been linked to follicular thyroid, hepatocellular, and lung adenocarcinomas. Future work will include using known standards to quantify exposure and determine the extent of potential health effects.

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Investigating interventions for increasing uptake of prevention of mother-to-child HIV transmission services: A systematic review

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Background: Mother-to-child HIV transmission, which can occur during pregnancy, labor, or breastfeeding, is responsible for 90% of HIV infections in children under the age of 15 worldwide. Despite significant advancements in low-cost, effective clinical interventions for prevention of mother-to-child transmission (PMTCT), uptake of these services is limited in low income and lower-middle income countries with high HIV burden. New Incentives, a non-profit organization in Nigeria, has introduced a conditional cash transfer program to reduce demand-side barriers of PMTCT utilization. We conducted a literature review to explore how the New Incentives conditional cash transfer program compares to other interventions addressing use of PMTCT services by HIV-positive pregnant women.

Methods: We performed a systematic analysis of over 800 quantitative and qualitative studies of interventions and social and behavioral determinants relevant to demand and supply of PMTCT. We subsequently compared these interventions to the conditional cash transfers included in the New Incentives program for increasing utilization of PMTCT services.

Findings: Quality improvement and provider training, in addition to use of peer mentors and the traditional health sector, including traditional birth attendants, has been shown to eliminate supply-side barriers of PMTCT. Integration of antenatal care with HIV services and male involvement in antenatal care significantly reduce demand-side barriers to PMTCT uptake. New Incentives is the first program to use conditional cash transfers to increase demand for PMTCT services in low-income countries.

Interpretation: Although little evidence exists for the efficacy of conditional cash transfers, they present a novel, promising tool for reducing demand-side barriers of PMTCT use. Furthermore, more interventions addressing transportation, food insecurity, and other demand-side barriers should be investigated. As PMTCT services become more available globally, this data should be a call to policymakers to address barriers that inhibit uptake of these services.

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A novel framework for evaluating the private profitability of investments in employee health in low-and middle-income countries

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Background: Health care sectors in most low- and middle-income countries (LMICs) are grossly underfunded. Novel drivers for investment in health are needed. We aimed to create a new driver for investments in health in LMICs by developing a novel framework for evaluating the productivity gain of health investments in a company setting and the resulting private profitability hereof.

Methods: A case factory setting in Northern Vietnam with 1700 adult textile workers was used for the development of our framework. 87% (N = 1305) were female and 13% were male (N = 195). All workers at the factory were included. A literature review of the most common diseases for this demographic group in this specific region was conducted to identify potential areas of impactful and sustainable health investment.

Findings: Iron-deficiency anemia was identified as a potentially relevant and sustainable area of intervention. The discounted effect of supplementing worker lunch meals with iron-fortified soy- and fish-sauce, corrected for delay of effect and worker exchange rate, was conservatively estimated to be at least 0.4% per year with a benefit-cost-ratio of the intervention of at least 2.0. These numbers were presented to the factory administration that decided to implement the suggested intervention. This further led to an unforeseen increased focus on worker nutrition at the factory, with the introduction of new nutritious food items in the factory kitchen and the establishment of teaching sessions on healthy nutrition for all employees.

Interpretation: The investment in worker nutrition at the factory illustrates the potential of this framework to act as a driver for private investment in worker health. It provides a unique contribution to the available literature in that it controls for the time-delay of effect and limited length of employment, and thus ignores productivity gains that do not directly benefit the company. While the applicability of our framework is limited to diseases where productivity effects have been studied the implementation of such economic frameworks for increasing private investments in employee health may prove an important component of health care financing in LMICs, in the absence of sufficient funding from other sources.

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A One-Health approach to prioritizing zoonotic diseases in Sub-Saharan Africa, 2015

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Program/Project Purpose: Zoonotic diseases threaten human and animal health with wide-reaching economic impact. These diseases are frequently neglected, concurrent with a lack of