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Background: Despite progress made in halting the global HIV epidemic, new infections among injection drug users (IDU) in Eastern Europe and Central Asia are increasing, and accounted for 10% of all new HIV infections globally in 2010. With 1.8 million IDUs, the Russian Federation (RF) alone contributed to 70% of these infections. Despite ample evidence on effectiveness of needle exchange programs (NEP), the RF is not actively promoting their development. Our project aims to assess the potential health and cost benefits of scaling-up of NEPs in the RF using our advanced modeling tool.

Structure/Method/Design: Using standard systematic review methods, we searched and screened studies assessing the direct and indirect effect of NEP on HIV-related outcomes globally. We extracted outcome data from eligible studies, transformed them to standard metric of relative risk reduction (RRR), and calculated summary measures using the random-effects meta-regression model. We developed and calibrated a Markov–state mathematical model to capture the dynamics of the HIV epidemic in the RF and transformed it into our user-friendly, interactive, web-based tool entitled “Global Health Decisions Policy Explorer.”

Results (Scientific Abstract)/Collaborative Partners (Programmatic Abstract): Our meta-analysis revealed that NEP attendance is associated with a 57% (52% to 62%) reduction in needle sharing in IDUs. Using this and other data in our model, we estimate that increasing the coverage of NEPs from 6% to 10% of IDUs in the RF will prevent 11,830 HIV infections and 3369 AIDS-related deaths over the next 20 years for approximately \$39 million. Scale-up of programs to reach 25% or 50% of IDUs would avert 70,000 or 164,000 infections, respectively, and 20,000 and 46,000 deaths when compared with the baseline scenario for the cost of \$233 million and \$557 million.

Summary/Conclusion: Resource allocation and governance needs to rely on sound evidence that is easy to use. Our project suggests that large gains in HIV prevention can be made in the Russian Federation through scale-up of NEPs.

Designing an Institute for Health and Technology: The Amsterdam Living Lab

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Background: In April 2013 the city of Amsterdam launched the Amsterdam Metropolitan Solutions design contest, soliciting designs for a new technical institute that would help Amsterdam to attract and retain international talent in applied technology, contribute to innovation while complementing existing strategic initiatives, develop and market metropolitan solutions to create economic value and improve the quality of living and working in Amsterdam, have a positive impact economically, and ensure sustainable connections regionally and globally. In return, the city offered the unique setting of a “Living Lab,” access to its sociodemographic and economic data, linkage to its international networks, and support in acquiring grants and investments.

Structure/Method/Design: The Amsterdam Institute for Global Health and Development (AIGHD), in collaboration with the Duke Global Health Institute (DGHI) and their respective consortium

partners (academia, private sector, investors, media, and civil society organizations), proposed establishing the Amsterdam Institute for Health and Technology (AIHT). AIHT is to be a world-class open innovation programme promoting healthy living and improved health services for urban populations globally. As a leading node in a global knowledge network, AIHT will identify, pilot, apply, and evaluate cutting-edge health technologies from around the world. These comprise health informatics, digital/mobile health, devices, point-of-care diagnostics, robotics, and domotics, including innovations with high-potential health impact in resource-constrained settings. Harnessing strategic links with academic, business, and other partners locally and globally, AIHT will facilitate the adoption of novel proven health technologies into urban health ecosystems to improve health and enhance the delivery of affordable, quality care.

Results (Scientific Abstract)/Collaborative Partners (Programmatic Abstract): The AIHT proposal is anchored in a threefold mission of education and training, scientific discovery and technical innovation, and knowledge translation and valorisation. AIHT was awarded second place in a field of 13 international consortia. Its strong points include its emphasis on creating a health-related Living Lab across Amsterdam based on Learning Health System principles, proposed MedTech incubator/science park facilities, focus on actual demand for solutions, and the quality and depth of its proposed education and training programmes. Negotiations are close to completion for the initial 3 years of funding.

Summary/Conclusion: In the face of rising health care costs across the globe, urbanisation influencing health worldwide, and the ageing of urban populations, applied innovative technology could offer solutions that would reduce costs while improving quality of life and health. AIHT aims to be a globally recognized knowledge node of technological innovation and its application to wellness promotion, disease prevention, and the delivery of efficient, quality health care services in Amsterdam and worldwide.

Understanding the emerging role of ultrasound in Colombian emergency medicine residency training

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Background: Emergency medicine (EM) is emerging as a specialty in Colombia with five residency programs and a growing presence throughout the country. Many residency programs and emergency departments are beginning to incorporate point-of-care (POC) ultrasound into their education and there is interest nationally in integrating POC ultrasound into a standardized emergency medicine residency curriculum. The objective of the study was to conduct a nationwide survey of Colombian EM residents to gain a better understanding of the current state of POC ultrasound use within EM residencies and to examine specific barriers preventing its expansion.

Structure/Method/Design: We conducted a mixed-methodology survey of all available current EM residents in the five EM residencies in Colombia (three in Bogota and two in Medellin). A quantitative needs-assessment survey was used, which assessed previous ultrasound experience, current use of various applications, desire for