A direct thread runs from our CityHealth 2012 Conference to the World Bank’s global role today. Managing unprecedented urbanization will be the defining challenge of this century. The knowledge we gain today – in London, Bogota, Vancouver and elsewhere – will illuminate tomorrow’s urban health challenges.

Consider the demographic context. World population will exceed 10 billion by 2100. Africa will grow fastest – becoming four times more populous than Europe and nearly as populous as Asia. Nigeria will be the world’s third largest country, with 750 million people and Tanzania the fifth largest, with 320 million. By 2100, Afghanistan will be larger than Russia – and Niger will be larger than both.

Almost all future population growth will be urban as rural areas shrink. In 1950, when Clement Atlee was narrowly re-elected and this Guildhall became a Grade 1 listed landmark, 30% of the world lived in urban areas. By 2008, urban dwellers surpassed rural dwellers for the first time in history. By 2050, 70% will live in cities. By 2025, there will be 26 megacities with over 10 million people, including 15 in Asia. There will be another 59 cities over 5 million people, three-quarters being incipient megacities. There will be a further 573 cities above a million people - China alone will have 221 such cities.

Urbanization can be positive - it offers unequaled economic and social opportunities. As Oxford’s Paul Collier notes, “high density is the handmaiden of economic opportunity.” McKinsey estimate that 600 cities with 20 percent of world population will generate $65 trillion – two-thirds of economic growth – to 2025. Cities are the crucibles of education, science and the global knowledge economy - simply reflect how the arc of universities within a mile from this hall makes London a global cradle of learning and innovation. Rapid urbanization need not be overwhelming. In the 19th century, London grew from one to six million people – rivaling Africa’s current urban growth.
However, cities also concentrate and incubate new health threats. Consider the breadth of challenges facing cities, especially rapidly growing ones:

- By 2025, a majority of the world’s poorest will live in urban areas.
- Globally, one in three urban dwellers – a billion people – live in slums. In the poorest countries, such as Bangladesh, Haiti and Ethiopia, almost 80% live in slums. Many slum dwellers lack rights and are voiceless.
- Land pressure and policies contribute to urban settlements in unsafe areas, such as flood-prone Dharawi, Asia’s largest slum in Mumbai.
- Urban air pollution primarily from vehicles and indoor cooking fuel in the poorest communities kills 1.2 million people annually.
- Road accidents are the leading cause of death among young people, particularly in developing countries.
- Some urban environments are unsafe, especially for children, women and the elderly.
- Many urban environments discourage exercise and mass market and distribute unhealthy food, fostering epidemics of non-communicable diseases.
- The interaction of dense urban living and newly emerging viruses could ignite global health crises. Consider how SARS moved from rural China to Beijing, Hong Kong and beyond.
- Existing infectious diseases are higher in urban areas. In Kenya, relative to rural areas, immunization is lower in slums where childhood infectious diseases also spread more quickly. TB in New York is 4 times the national average. 80% of TB in the Congo is urban. Urban HIV rates are twice the national average in most African countries.
- Urban milieu also exacerbate harmful health behaviors, including mental illness, violence, alcohol, tobacco and drug abuse and risky sex.

Can we confront and overcome these myriad daunting health threats? I am confident we can **IF** and only **IF** we are fore-armed with the evidence and
lessons of experience. I would like to suggest the following guiding principles and lessons.

**First, solidarity and inclusion are critical.** As Ambassador Rodriguez-Munera’s inspiring examples from Bogota and Medellin demonstrate, cities with a shared conviction of civic citizenship and purpose can overcome even the cancer of global drug cartels. The global AIDS movement underscores the transformative power of solidarity. The determination of Northern AIDS clients, activists, scientists and taxpayers to extend life-saving AIDS treatment to the poorest communities worldwide created the global health movement, transformed global health from a multi-million to a multi-billion dollar global solidarity fund and inspired today’s movement towards universal health coverage. The lesson is simple – cities inspired by solidarity and inclusion to forge a shared civic citizenship can protect their most vulnerable members – ultimately thus improving the health, safety and quality of life of all residents. Cities guided by these principles seek to understand and uplift whoever is most vulnerable – whether undocumented migrants, voiceless slum dwellers, or marginalized drug users or sex workers. Solidarity is smart urban development and good economics – and it makes cities more habitable for ALL residents.

**Second, voice and participation are vital.** As Paul Ward’s distillation of the global lessons from the Terrence Higgins Trust and Lindsey Richardson’s Vancouver presentation showed us earlier, voice and participation are pre-requisites for effective, sustained health outcomes, especially among the marginalized. The remarkable success of community-led HIV prevention programs in gay communities in the West before AIDS treatment was discovered is powerful testimony to the transformative power of community leadership and participation. Moreover, this AIDS response re-vitalized the gay rights movement, fomenting wider social change.

**Third, options and choices really matter.** Different policy choices have different outcomes. These outcomes matter. If we disregard the evidence. If we choose the wrong policies, people remain homeless, mentally ill, addicted, overdosed, infected with an irreversible virus, or dead. The difference between supporting and opposing proven harm reduction
approaches is not benign – addictions, overdoses, lifelong, irreversible infections or deaths result.

**Fourth, knowledge and evidence are integral.** Knowledge and evidence-based practice are even more vital than ever, especially in a context of austerity and skepticism about public health. Evidence can matter – rigorous World Bank evidence showing that cash transfer to poor households can improve health, education and poverty outcomes have made such cash transfers a major pillar of many national social welfare programs. The evidence made a crucial difference. We must promote evidence-based approaches, increase our emphasis on meticulous evaluation and more closely integrate town and gown, research and practice, pursuing a model of the inquiring practitioner and the embedded scientist. Public health cannot be bifurcated into research and practice. We must increase our impact evaluation capacity in public health practice AND academic research. We must be confident we are promoting proven approaches and confident we can defend these approaches.

**Fifth, cost-effectiveness is inescapable.** We know good public health interventions are smart investments and we know they have health and social benefits. However, we aren’t always able to quantify these returns and cast them in economic language. We must increase our focus on cost-effectiveness and be able to demonstrate good public health investments provide clear, positive returns. We must be able to compare these returns with other investments. In short, we need a closer partnership with health economists, greater literacy in economics and greater fluency in advancing economic arguments. We have a compelling story to tell – and we must share it in economic language. We need an alliance between public health practice, evaluation and economics.

**Sixth, cities concentrate and incubate intelligence and innovation - and innovation will transform urban – and global - health.** The last 20 years have witnessed unprecedented and accelerating scientific and technological progress. Take AIDS treatment. Just two decades ago, we had few tools to prevent deadly infections and no drugs to commute slow, agonizing, wasting death. Today, we have an expanding armory of proven
prevention tools, we have more drugs to treat HIV than every retrovirus in history combined, we have reduced annual drug costs from $10,000 to $100 and we have delivered AIDS drugs to over 8 million people worldwide in the largest ever expansion of lifesaving treatment. Continued innovation in science, technology, delivery, management and social organization will drive further improvements in urban and global health. Cities must capitalize on their greatest advantage – concentrated intelligence – to drive and apply innovations. Breakneck scientific and technological progress will continue to expand the frontiers of possibility.

**Seventh, service delivery is a science.** Most failures happen at delivery. They fail at implementation. At execution. Many countries and cities have strong public health policies and programs – on paper. But they are not getting the results they want – the challenge is delivery. Delivery means implementing the services that achieve the desired results. The public health field has outstanding delivery success stories we can all learn from. Consider UNICEF’s Expanded Program on Immunization, which quadrupled immunization rates from 20-80% in six short years. Or take PEPFAR, which directly led to 8 million people receiving lifesaving AIDS treatment in just a decade. Or India’s Avahan Program, which helped to halve new HIV infections in India by using delivery science to reach, protect and empower sex workers. These programs share common elements which help us to define delivery science, including: (i) explicit goals and a remorseless, undeviating results focus; (ii) a laser-like focus on the biggest drivers of results; (iii) an unrelenting absorption in the details of implementation; (iv) an emphasis on problem solving and results, not processes or procedures; (v) a quest for real-time program data and a willingness to make immediate strategic or tactical adaptations in response to real-time data; (vi) incentive systems that reward rapid identification of failure and encourage smart risk taking and urgent problem solving and (vii) an overarching can-do, must-do ethos that assumes obstacles, must, can and will be rapidly overcome – elegant excuses don’t count. The science of service delivery is the next frontier for public health – and development in general.
Eighth and finally, urban health is truly transdisciplinary. Urban health is influenced by town planning, engineering, water and sanitation, transport, parks and recreation, education, commerce, the private sector, community associations, churches and media. We need new integrated urban health solutions that focus on problems and their solutions, not formal professional disciplines. We need to address problems through solutions that require wholly trans-disciplinary approaches. Urban dwellers live in cities and towns, not departments or sectors. This is basic, but our business models haven’t begun to catch-up yet. We must all reorganize our core business models around intermeshed problems and their integrated solutions. At the World Bank, many country partners don’t even think in terms of health projects anymore – they think of healthy, educated, well-housed, insured and productive citizens. To put it another way, a comprehensive, integrated slum improvement program is a better foundation for urban health than a narrow health project.

In conclusion, urban health – world health - faces myriad complex challenges. Yet we should be undaunted as we prepare to pass the torch to Glasgow, another city with a rich and influential global history, where Joseph Lister invented modern antiseptics and sterile surgery. I doubt that any of our forebears gather in this Guildhall – even at their most ebulliently optimistic - would believe the progress we have made. So much of urban health – the fight against mental illness, addictions and diseases such as AIDS - shines a light on the worst and best in us. When we respond with prejudice we are at our worst. When we respond with science, compassion and the conviction that each individual matters, we are at our best. When we measure ourselves against these principles, it is clear how much progress we have made. For all the challenges we face, there has never been a better time to be alive. Let this conference – and its successor in Glasgow – peer through the present economic mists and join with the great Anglo-Scottish polymath Thomas Babington Macaulay:

“On what principle is it, that when we see nothing but improvement behind us, we are to expect nothing but deterioration before us?”