



# Novartis Foundation

Partnering to transform health systems from being reactive, to proactive, predictive and preventative

With health systems under tremendous strain, innovative approaches to transform population health, based on unbiased, data-based actions are urgently needed. Only by reimagining health and care can health systems respond to the dual burden of infectious and chronic diseases, the constant threat of emerging diseases, the global shortage of skilled health workers, and rapid urbanization. In this context, the Novartis Foundation is working with city authorities and partners to design and implement fast, adaptive responses to today's health challenges.

## Transforming cardiovascular population health through evidence

The Novartis Foundation supports comprehensive multisector approaches to improve and extend lives in urban settings. Increasingly complex health needs in underserved populations mean innovation is necessary to transform health systems from being reactive, to proactive, predictive and preventive. This includes using data to optimize existing resources, and taking a data-driven approach for health policy making.

Despite tremendous advances in care, cardiovascular disease (CVD) remains the world's leading cause of death, with current approaches to lower CVD risk at the population level failing. These diseases take almost 18 million lives per year (**WHO**), with three-quarters of those deaths occurring in low- and middle-income countries (LMICs) (**WHO**). High blood pressure is the single leading risk factor for acute cardiovascular events such as heart attacks and strokes, while high blood sugar, cholesterol and obesity are the other main contributors to global mortality (**GBD 2019**). Lowering CV risk at the population level therefore requires addressing as many of these risks as possible.

## Addressing high blood pressure through effective partnerships

The Novartis Foundation's Better Hearts Better Cities initiative showed that novel, multi-sector partnerships addressing high blood pressure and its underlying causes can rapidly improve population health. Established across three continents — in Sao Paulo, Brazil; Dakar, Senegal; Ho Chi Minh City, Vietnam; and Ulaanbaatar, Mongolia — Better Hearts Better Cities is powerful evidence for how cities can improve cardiovascular health in their populations. Health outcomes improved dramatically after just 18-24 months of implementation. This was possible by combining resources and expertise of multidisciplinary partners, gathered behind the single agenda of improving population health, and monitoring progress against precise measurable targets.

The Better Hearts Better Cities CARDIO approach – shorthand for quality Care, Access, policy Reform, Digital technology, Intersectoral collaboration, and local Ownership – tripled blood pressure control within just 18 months of implementation in Sao Paulo, reducing the number of people suffering from a stroke by 30%. In Dakar, the same approach saw an eightfold increase in blood pressure control rates after just two years.



## Taking the population health approach to other geographies

Better Hearts Better Cities showed that population level action is imperative to decrease the CVD burden and mortality. Evidence-based policymaking, based on real-time data, is key to defining the health interventions that can improve and extend the lives of the greatest number of people. Only by accelerating detection and improving the management of risk factors, can we ultimately prevent CVD.

Achieving this ambitious goal requires us to reimagine health and care, and re-engineer our current care systems into true health systems that prioritize keeping people healthy, rather than caring for them only when they are unwell. COVID-19 has been a wake-up call for this urgent re-engineering. And, as the pandemic hit urban populations hard, cities are the best place to start.

The Novartis Foundation is taking its CARDIO approach to the next level, by addressing CV risk in partnership with cities that are determined to transform the health of their populations. Grounded in evidence and tools from Better Hearts Better Cities, our approach will incorporate emerging HealthTech innovations and an interactive self-assessment tool for countries to define their readiness to deploy data- and AI-driven innovations in health, based on the Broadband Commission's 2020 Roadmap to AI Maturity in health.

Strong political will is necessary to shift health policy toward data-driven, evidence-based decision-making, and local authorities must remain in the driver seat throughout the initiative. The approach focuses first on reducing high blood pressure and high cholesterol, because ample evidence shows that controlling these two factors has a significant (incremental) cardiovascular health benefit. Together with city authorities, we will rethink how to collect and analyze data, and use advanced analytics to map and track inequalities in CV health and their determinants. This data-driven approach can enable decision-makers to choose the health interventions that can lead to health for all.



### Creating population health partnerships with impact

To succeed, the Novartis Foundation seeks like-minded partners to work together to lower CV risk and improve the heart health of urban populations.

Do you want to join the Novartis Foundation in reimagining health and care in your city?

### About the Novartis Foundation

The Novartis Foundation advances digital and data-led approaches to population health. Our initiatives aim to improve the health of lower income populations by transforming health systems from being reactive to proactive, predictive and preventative.

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