Strong local ownership of public-private partnerships, also involving non-traditional healthcare players

Use of digital health to monitor progress, outcomes and impact in real-time

Health and care delivered closer to where people live, work and play

**Urbanization is a major driver of noncommunicable diseases (NCDs)**

The burden is particularly high in low- and middle-income countries, where over 85% of NCD-related deaths occur.

**But cities also offer huge potential**

By 2050, 68% of the world’s population will live in cities, with 90% of this growth set to occur in Asia and Africa.

On the other hand, also offer huge opportunities to become drivers of public health.

**Better Hearts Better Cities is a sustainable model for improving hypertension prevention, control and management in cities around the world**

The Novartis Foundation and partners have collected evidence to build a roadmap for replicating the initiative in other geographies.

Measurement is based on individual and population health outcomes; health system performance; impact of health policies and strategies; and data-based decision-making.

**Success was dependent on four key factors:**

1. **Strong local ownership of public-private partnerships, also involving non-traditional healthcare players**
2. **Use of digital health to monitor progress, outcomes and impact in real-time**
3. **A quality improvement culture for health and care**
4. **Health and care delivered closer to where people live, work and play**

**References:**

Better Hearts Better Cities: Ulaanbaatar, Mongolia

Since the launch of Better Hearts Better Cities in 2017, the Novartis Foundation has worked with partners to introduce innovative solutions to prevent, control and manage hypertension in Ulaanbaatar.

Why is Ulaanbaatar part of Better Hearts Better Cities?

- The city of Ulaanbaatar is home to 1.4 million people: about half of Mongolia’s total population.¹
- NCDs account for 80% of deaths in Mongolia, with cardiovascular disease the top cause of mortality, leading to over 40% of deaths annually.²
- 53% of the Ulaanbaatar population have hypertension and control rates are low at 6%.³

Why is hypertension such a problem?

- In Mongolia, there are high rates of smoking (21.7%) and excessive drinking (23.5%) and diets are high in salt and low in fruit and vegetables² – all risk factors for hypertension.
- Barriers to treatment include access to affordable quality medicines and high out-of-pocket cost of medicines.

How was the program implemented?

<table>
<thead>
<tr>
<th>Strong local ownership of multisector PPPs</th>
<th>Use of digital health</th>
<th>Improved quality of care</th>
<th>Brought health and care closer to people</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government agencies: Ministries of Health, Education and Finance, Ulaanbaatar City, Office of the Prime Minister, House of Representatives</td>
<td>Introduced a comprehensive digital health platform with clinical decision support and ePrescription</td>
<td>Co-developed with the health authorities solutions for healthcare process optimization and systematic hypertension screening in clinics</td>
<td>Engaged pharmacists in hypertension detection and care through training and accurate measurement tools</td>
</tr>
<tr>
<td>Civil society: Mongolian Hypertension Society, Mongolian Cardiology Association, Mongolian Diabetes Association, Nursing School of Mongolian National University of Medical Sciences</td>
<td>Introduced a digital registry for patients with NCDs in primary health care</td>
<td></td>
<td>Worked to improve prevention &amp; early detection in schools, workplaces and local businesses</td>
</tr>
<tr>
<td>Implementation partners: Onom Foundation</td>
<td>Made real-time data available for health managers and policy makers from the Ministry of Health and National Health Insurance</td>
<td>Developed digital applications to enhance patient self-management</td>
<td></td>
</tr>
</tbody>
</table>

What results have been achieved?

- Interventions cover all 142 clinics in Ulaanbaatar covering 1.4 million people
- Policy outcomes included doubling the number of hypertensive drugs included in the health subsidy, and increasing direct funding for primary healthcare centers and the health insurance subsidy for primary healthcare
- Nationwide scaling of the digital health platform by the World Bank, to reach over 3 million people

References:
Better Hearts Better Cities: Dakar, Senegal

Since the launch of Better Hearts Better Cities in 2017, the Novartis Foundation has worked with partners to introduce innovative solutions to prevent, control and manage hypertension in Dakar.

Why is Dakar part of Better Hearts Better Cities?

- The city of Dakar is home to 3.5 million people: about one-fifth of Senegal’s entire population.
- Cardiovascular disease is one of the leading causes of mortality in Senegal, resulting in about 17% of deaths.
- Around 30% of the population lives with hypertension, but the control rate is just 8% - compared to 66% in Canada and 53% in the USA.

Why is hypertension such a problem?

- Awareness of risk factors is relatively low in Senegal. As a result, diets are often high in salt and 67% of adults consume less than the recommended daily intake of 5 portions of fruits and vegetables.
- 29% of the population are overweight or obese and 66% of adults do not get regular intensive exercise.

How was the program implemented?

**Strong local ownership of multisector PPPs**

- **Government agencies:** Senegal Ministry of Health, Dakar Medical Region Directorate
- **Civil society:** Eiffage, NCD Alliance, Société Sénégalaise de Cardiologie, Syngenta Foundation, WHO Senegal Office
- **Implementation partners:** Intrahealth International, PATH

**Improved quality of care**

- Introduced primary care training modules for doctors, nurses, midwives and community health workers
- Developed and disseminated a standard care algorithm
- Introduced patient records for hypertension patients
- Improved access to hypertension medicines through the National Pharmacy Directive

**Use of digital health**

- Supported development of the first national digital health strategy (2018-2025)
- Introduced a hypertension registry, and a digital dashboard to facilitate real-time availability of patient & program progress
- Integrated new NCD indicators in the national surveillance program

**Brought health and care closer to people**

- Changed national policy to enable community health workers to conduct blood pressure measurement and treatment follow-up
- Educated community leaders and patient representatives on early diagnosis and healthy behaviors
- Developed workplace and school wellness programs focused on combatting NCDs

What results have been achieved?

- Interventions cover the entire Dakar Municipality of 1.3 million people
- Supported the Ministry of Health’s first national operational plan for cardio-metabolic diseases
- After one year, the control rate for patients under treatment in the program was already three-times the national average

References:
3. WHO STEPS survey, Senegal 2015. Available at: http://www.who.int/chp/steps/Senegal_2015_STEPS_FS.pdf?ua=1
Better Hearts Better Cities: São Paulo, Brazil

Since the launch of Better Hearts Better Cities in 2017, the Novartis Foundation has worked with partners to introduce innovative solutions to prevent, control and manage hypertension in São Paulo.

Why is São Paulo part of Better Hearts Better Cities?

- The city of São Paulo is home to 12 million people and has one of the highest population densities.1
- Hypertension control rates are low2 leading to a high number of strokes, myocardial infarctions and heart failures. Cardiovascular disease is responsible for almost 1 in 3 deaths in Brazil.2,4
- In São Paulo, 24.5% of the population declare to have hypertension3 and in the State of São Paulo, cardiovascular mortality is 30%, comparable to the national average.6

Why is hypertension such a problem?

- Most people in São Paulo are unaware of having high blood pressure and only 20% of those who do know their condition are taking regular medication.7
- Only 32% of the population is physically active, 30% eat fruit or vegetables regularly and over 50% are overweight.3

How was the program implemented?

<table>
<thead>
<tr>
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<tbody>
<tr>
<td><strong>Government agencies:</strong></td>
</tr>
<tr>
<td>Secretary of Health and \</td>
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<tr>
<td>Secretary of Education of the City of São Paulo</td>
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<tr>
<td><strong>Civil society:</strong></td>
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<tr>
<td>Sociedade de Cardiologia do Estado de São Paulo, Leandro de Itaquera Samba School, Corinthians Football Club, APS Sta Marcelina, Associação Samaritano</td>
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<tr>
<td><strong>Implementation partners:</strong></td>
</tr>
<tr>
<td>Instituto Tellus, IQVIA, Marcio Atalla &amp; Agência We</td>
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</table>

<table>
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<tr>
<th>Improved quality of care</th>
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<tbody>
<tr>
<td>Adapted and translated national hypertension guidelines into standardized algorithm and protocol</td>
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<tr>
<td>Developed a drug adhesion kit and care optimization tool for pharmacists, now used by public pharmacists across São Paulo</td>
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</tbody>
</table>

<table>
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<tr>
<th>Use of digital health</th>
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<tbody>
<tr>
<td>Developed the first online training for hypertension in Brazil</td>
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<tr>
<td>Introduced solutions for process optimization and systematic hypertension screening in clinics</td>
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<tr>
<th>Brought health and care closer to people</th>
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<tbody>
<tr>
<td>Partnered with community leaders such as the Corinthians Football Club and Samba Schools to increase hypertension &amp; heart health awareness, and encourage care-seeking behaviour in high risk groups</td>
</tr>
<tr>
<td>A community ambassador program incentivized patient care and disease prevention</td>
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<tr>
<td>Brought health awareness to workplaces and schools</td>
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</tbody>
</table>

What results have been achieved?

| Interventions have been rolled out across 11% of the population covering 1.5 million people |
| Local public and private sector partners co-finance the initiatives |
| Health system integration and translation into policy is ongoing |

References: