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# NAIROBI CITY COUNTY

**Community Health Services Investment Case**

**2023**





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## Overview of Community Health Services



A Nairobi City that ensures universal access to acceptable, affordable, equitable, and quality community health services for all



To empower people to live healthy through transformative, responsive, sustainable community health services in Nairobi, using a primary health care approach



To improve service delivery to all through integrated participatory and sustainable community health services towards attainment of universal health coverage



1. Strengthen the delivery of a comprehensive, integrated and quality community health services for all cohorts
2. Strengthen community health structures and systems for effective implementation of community health actions and services at all levels
3. Strengthen health facility and community linkages
4. Empower the community to realize their right for accessible and quality health care
5. Strengthen mechanisms for resource mobilization and management for sustainable implementation of community health services





## Background

1. Community health initiatives has emerged as a **crucial vehicle for the attainment of the sustainable development goals.**
2. Nairobi, with a population of over four (4) million people and **rapid urbanization**, addressing healthcare challenges at the community level is essential to **improve overall well-being and empower local communities.**
3. Investing in community health in Nairobi, Kenya offers a **remarkable opportunity to save millions of lives** globally by expanding access to cost-effective therapies through trained community health promoters (CHPs).
4. In addition to their life-saving impact, **CHPs play a pivotal role in addressing the acute shortage of skilled health professionals**, particularly in low-resource and vulnerable healthcare systems.
5. Moreover, investing in community health has the potential to **accelerate economic growth** by boosting **productivity through a healthier population.**





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## Why an Investment Case for Nairobi City County?

- Community health workers deliver promotional, preventive and curative health interventions, **remains an underinvested component of health systems** in most settings.
- However, the evidence about the **effectiveness of community health interventions** to avert deaths and disease continues to grow.
- In sub-Saharan Africa, investing in in community health (CH) can generate up to **10x return on investment**.
- In Kenya, investing in community health (CH) can potentially generate up to **9.4x return on investment**.
- There is need to generate empirical evidence to show benefits of investing on community health in Nairobi.
- Investment cases can be powerful tools to **demonstrate the high returns** that can be achieved by strengthening investments in the delivery of **high-impact interventions**, by presenting the full range of costs involved and the full range of benefits that flow from the interventions.
- The investment case can be a powerful advocacy tool to:
  - Create **support and consensus among stakeholders** about the importance of investment in the CH program.
  - Ensure that key decision makers and partners are **informed about the value of the CH program**.
  - Ensure that **sufficient resources are allocated** in support of the CH program.

Overall, investing in the Community Health approach yields a return on investment in terms of health, economic and social returns

### The case for investment in Community Health is clear

- 01** Requirement to achieve critical health objectives
- 02** Significant long-term economic return on investment
- 03** Cost effective in delivery of services, especially to underserved communities
- 04** Further social benefits to society in form of employment and economic multiplier effects

A 2015 global report indicated investing **\$1 in CHWs can return over \$10** in long term, from:

- Economic productivity
- Insurance against a crisis like Ebola
- Employment stimulus for CHWs

In Kenya, investing **\$1 in community health yields a return of over \$9.4** in the long term



## Well trained, equipped, supervised and remunerated CHPs in Nairobi City County can generate a return of 14x

### Methodology:

- **Costing:** Activity-based costing/UNICEF/MSH Community Health Planning and Costing Tool
- **Productivity benefits:** Lives Saved Tool (LiST) and ROI modelling tool

### Program cost:

The total cost of a fully scaled up CH program in Nairobi is estimated at **US\$ 59.1 million (KES 8.25 billion)**

### Benefits:

The total potential benefits of scaling up CH Programs in Nairobi is estimated at **US\$ 767 million (KES 105.9 billion)**

### Return on investment:

Scaling up Community Health interventions in Nairobi can generate up to **13.6x** Return on Investment (ROI) - which means that **for every one Kenya Shilling (KES) invested in Community Health, an economic return equivalent to KES 14 KES can be realized**



ROI  
14x





# The Case for Investing in CH in Nairobi City County

Health	Social/Environmental	Economic
Increase access to/coverage of health services (promotive, preventive and curative) e.g. behavior change, disease surveillance, screening of NCDs, antenatal care, immunization, etc.	<ul style="list-style-type: none"> <li>• Women empowerment</li> <li>• Equity</li> <li>• Assess environmental determinants of health e.g., suitability of home delivery</li> </ul>	Women employment contributes to economy
Enhance health indicators at all levels Supports UHC	Contribute to other social and environmental disciplines	Reduce health care costs at the primary, secondary and tertiary levels
Reduce health inequity		Increase longevity and productivity
Achieve national and international commitments		





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## The Health Case

Community health contributes to achieving **Universal Health Coverage** (UHC), **disease elimination, national health goals**, and **Sustainable Development Goals** (SDGs):

- By providing **access to care for communities at the last mile**, community health workers are the key to ensuring UHC, contributing to the global goal of UHC by 2030.

Community health helps countries move closer to achieving targets for the Sustainable Development Goals (SDGs). SDG 3, focused on good health and wellbeing, includes targets such as **decreasing the maternal mortality ratio** (SDG 3.1) and **increasing family planning coverage** (SDG 3.7).

- Scaled community health systems provide crucial services in maternal health and family planning to meet these needs outlined in SDGs, among many other functions.

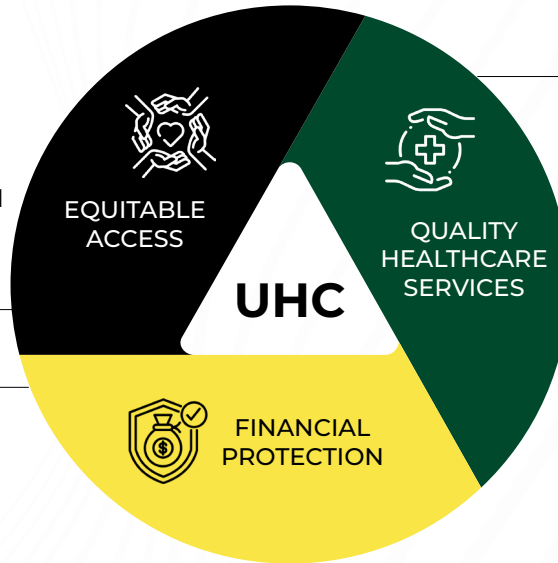
Community health saves lives by **reducing morbidity and mortality from preventable causes**, especially for mothers and children. Many examples from countries show these important health benefits.





# Universal Health Coverage

- CHWs **extend** care to **underserved** communities
- They enhance **access** to health services, promote people's trust, demand, and use of services



- **Trained, equipped, and supported** CHWs can provide a range of promotive, preventive, and curative care services

- CHWs provide services **free of charge**, contributing to **reduced out-of-pocket** expenditures incurred by households when accessing care in facilities

- CHWs provide services to households **right where they are**,
- Help individuals **avoid trips** to health facilities, translating to reduced indirect costs (**saves transportation costs and time**), which contribute to barriers to accessing health care



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## Equity and Empowerment Case for Investing in CHPs in Nairobi City County

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CH programs are **critical in reaching vulnerable, unserved, remote, and primarily low-income populations.**

Community health workers can additionally **build a strong bond of trust** with the formal health sector for last mile populations, helping to promote equity in access to health services for these populations.

Can lead to **increased household incomes because of employment and other opportunities** created throughout the economy by investing in community health.

- Community health provides a **meaningful source of livelihood** for many community health workers, their supervisors, management, and others, both locally and nationally.

**Empowers women and other marginalized groups** as they take up roles in community health within their communities.

**Promotes strong community participation,** empowers communities to take control of their health and builds critical human resources for health capacity at the community level.



# Globally, Community Health is shown to be effective in improving important health indicators

## Health Issue

## Impact from Community Health

<b>Child Health</b>	Up to a 33% drop in under-5 mortality after a year (Uganda) Up to 24% drop in risks of deaths from child pneumonia (7 countries)
<b>Maternal Health</b>	Up to 23% drop in maternal mortality Effective administration of injectable contraception by CHWs (9 countries)
<b>Infectious Disease</b>	CHWs able to perform 115 of the 313 tasks that are essential for HIV prevention and treatment (WHO)
<b>Water and Sanitation</b>	53% drop in child diarrhea due to a promotion of handwashing behaviour (Pakistan)
<b>Non-communicable Diseases</b>	Potential to effectively monitor and diagnose NCDs (e.g. blood pressure tests and cardiovascular screenings)

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## Further, delivering care to the last mile positively impacts key social determinants for health



**Health is important for education.** For a child, poorer school performance means they will earn up to 22% less on average (UNICEF)



Better health facilities better **employment** outcomes. Also, community health programs employ **thousands of Kenyans**, particularly women and youth



The community approach is associated with **improved gender equity and stronger support from men.** CHW programs often employ women - and employment is linked to **better health, higher levels of education, and a reduced domestic violence**



Poorer people are less likely to use facility-based services. Community based health delivery increases **utilization, coverage and equity** of health services



Community-based approaches to improve child health, survival, and development nearly **improve community capacity, engagement and trust**

## Economic Case for Community Health

3 primary economic benefits	Tools	Key variables
1. Productivity benefit: The impact of lives saved via the program	Using the Lives Saved Tool	<ul style="list-style-type: none"> <li>• GDP per capita</li> <li>• Assumed GDP per capita growth rate</li> <li>• Life Expectancy</li> <li>• Average age entering labor force</li> </ul>
2. Employment benefit: The economic benefit of increased employment	ROI model tool	<ul style="list-style-type: none"> <li>• Fiscal multiplier (increased economic activity through increased employment and spending)=0.7 for developing countries</li> <li>• Total spending on program</li> </ul>
3. Insurance benefit: Improved protection against the high costs of public health crises	ROI model tool	<ul style="list-style-type: none"> <li>• Economic impact of severe health crisis Annual economic risk from a severe health crises</li> <li>• Years over which a severe health crisis could occur Global population-Country's population Global Health Workforce-Country's total health workforce/ Number of CHWs in the workforce</li> </ul>





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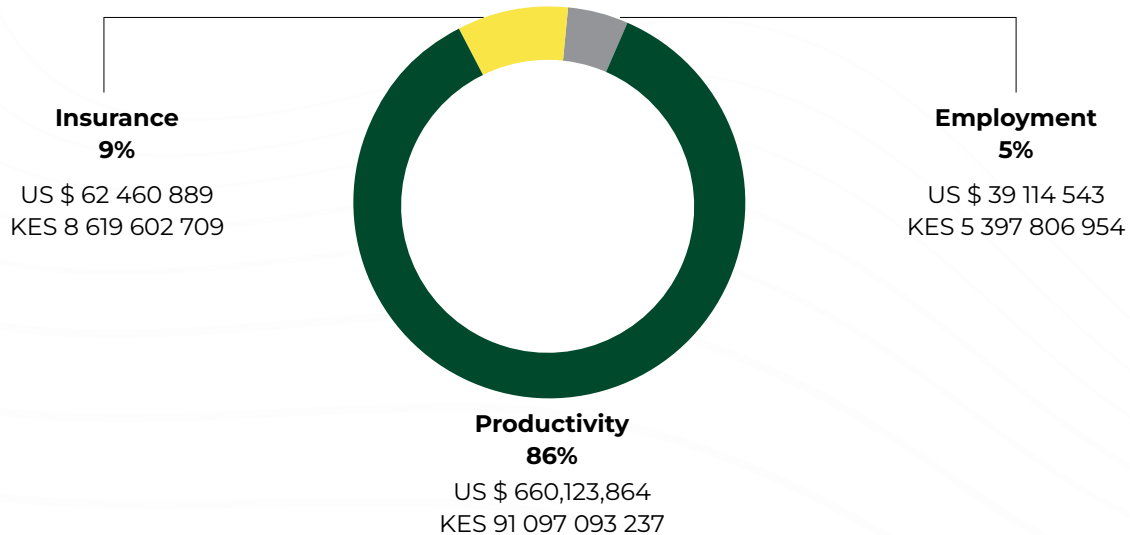
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# Economic Benefits of Investing in Community Health Program in Nairobi City County

**Total benefits: KES 105.9 billion (US \$ 767 million)**

Benefits







## Employment Benefits

Community health systems provide **formal employment** to many people, from community health workers to supervisors to management.

This increase in formal employment not only provides **social benefits** — such as **employment of women and youth and reduced crime** — but also **economic benefits** that cascade in the **economy**.

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Employment	Value	Notes
Total Spending on program from 2023	<b>\$12,279,077</b>	Cost for 1 Year in 2023
Fiscal multiplier (encompassing increased economic activity through increased employment and spending)	<b>0.7</b>	Based on The World Bank “Rethinking Fiscal Multipliers” (2010) and its estimate of government spending multipliers in developing countries
Resulting GDP impact of spending on CHW program	<b>\$ 8,595,354</b>	
<b>Total Employment Benefits over 5 years</b>	<b>\$ 36 182 630</b>	



## CHP acts as an insurance policy against epidemics and pandemics

Large-scale health catastrophes such COVID-19 **cost the health system millions of dollars** in containment, treatment, and other economic losses

Nairobi is prone to cholera epidemic and CHPs have been key in containing the epidemic

Economic losses averted from **community-level disease surveillance** to prevent or quickly contain possible health crises

There is a potential to prevent a global health crisis **due to the increase in the number of community health workers** globally.

Increased scale up of CH interventions will result in an **increase in the current number of health workers.**

Insurance benefits	Value	Notes/Sources
Economic impact of health crisis	<b>\$3,000,000,000,000</b>	Based on World Bank World Development Report Background Paper "Pandemic Risk" (2014)
Years over which a severe health crises could occur	<b>50</b>	Financing Alliance assumption
Annual economic risk from a severe health crises	<b>\$ 60,000,000,000</b>	
Global population	<b>7,942,645,086</b>	<a href="https://shorturl.at/AGMS5">https://shorturl.at/AGMS5</a>

Nairobi's population	<b>4,397,073</b>	Kenya Population and Housing Census Volume II 2019
Nairobi's population as a % of global population	<b>0.0554%</b>	
Estimated annual economic risk from severe health crises for Nairobi	<b>\$ 33,216,186</b>	
Nairobi's health workforce	<b>11,756</b>	All health workforce
Nairobi's health workforce as a % of total population	<b>0.0027</b>	
Size of global health workforce	<b>43,500,000</b>	<a href="https://www.who.int/hrh/resources/global_strategy_workforce2030_14_print.pdf">https://www.who.int/hrh/resources/global_strategy_workforce2030_14_print.pdf</a>
Number of CHPs added to workforce	<b>9600</b>	From "Costed" Community Health Strategy or based on scenarios
<b>Percentage increase in Global health workforce</b>	<b>0.022%</b>	
<b>Annual value of CHP contribution to reduction of health crisis economic risk</b>	<b>\$13,241,379</b>	Assuming economic risk of health crisis is assumed to reduce in proportion to size of health workforce (Financing Alliance assumption)
<b>Total Insurance Benefits</b>	<b>\$ 62 460 889</b>	



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## Productivity Benefits

CHPs contribute to saving lives through **disease prevention and curative services** at the community level leading to a **healthier population contributing to the economy**, which results in economic benefits.

Productivity benefits therefore relate to economic benefits to Nairobi County as a result of a **life saved** being able to join the country's workforce resulting in **increased productivity due to a healthier population** from CH scale up.

Number of lives saved was estimated using the LiST tool, which **quantifies what number of lives could be saved from scaling up key CH interventions**.

The number of lives saved are evaluated according to different potential beneficiaries of CH scale up. It therefore involves looking at:

- Additional deaths prevented in children under 5 years
- Additional maternal deaths prevented

<b>Deaths Averted from CHP Intervention</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>
Include Maternal Deaths	81	168	254	339	413
Do not include Maternal Deaths	81	167	253	338	412

Input	Value	Notes/Sources
GDP per capita	<b>\$4,322</b>	Gross County Product
Average GDP per capita growth rate	<b>5.4%</b>	Economic Survey 2022
Life expectancy	<b>64 years</b>	
Average age at death	<b>5 years</b>	Assumption (conservative, since focused primarily on under-5)
Average age entering labor force	<b>18 years</b>	Kenya Labour Force Survey
Productive years regained	<b>46 years</b>	
Discount rate	<b>3%</b>	WHO recommends a 3% discount rate
Total deaths averted by CHPs	<b>1255</b>	Maternal and child lives saved
Benefit per death averted	<b>\$745,846</b>	Takes sum of present value of regained earnings; note manually update equation if change assumptions around when people start or end working)
Productivity benefits for 2023	<b>\$ 42,605,604</b>	
<b>Productivity benefits over 5 years</b>	<b>US \$ 660 123 864</b>	

## Estimating Impact of Coverage in Numbers of Lives Saved



**Cause-specific mortality**



**Intervention coverage**



**Effectiveness**



**LIFE SAVED**

Cause-specific mortality  
= births x mortality  
rates x % deaths due to  
causes

- Neonates <1 months
- Children 1-59 months
- Women 15-49 years
- Stillbirths

$$= \frac{\text{Numerator}}{\text{Denominator}}$$

$$= \frac{\text{All who received intervention}}{\text{All who needed intervention}}$$

- Proximate interventions: Distal variables improves coverage of proximate interventions
- Work through health programs: Both community and facility-based
- Feasible in low income countries
- Cause-specific evidence of effect: Systematic reviews, meta-analyses, RCTs, Delphi method; Updated frequently

- Total
- By:
  - Cause
  - Intervention
  - Age group





# Interventions in LiST Tool



### Periconceptual

Folic acid supplementation / fortification



### Pregnancy

Micronutrient supplementation (iron and other micronutrients)



### Childbirth

Hygienic disposal of children's stool; Contraceptive prevalence rate



### Breastfeeding

Breastfeeding prevalence & promotion  
Complementary & supplementary feeding education



### Curative

Administration of oral rehydration salts for treatment of diarrhoea  
ORS treatment  
Zinc treatment



### Vaccines

Vitamin A supplementation



### Preventive

Improved sanitation (e.g. hand washing with soap)  
Improved sanitation from utilization of latrines and toilets  
Improved water source – improved water connection at home  
Use of insecticide treated mosquito nets/IRS for protection from malaria





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## Cost of Scaling Up Community Health Services in Nairobi City County

Cost per Priority Area	2021/22	2022/23	2023/24	2024/25	2025/26	Total
<b>Priority area 1. Strengthen leadership and governance for community health services</b>	126 420 500	117 018 000	120 018 000	123 018 000	124 536 000	<b>604 703 500</b>
<b>Priority area 2. Map, mobilize and adopt innovative and sustainable financing for community health services</b>	102 996 000	97 409 000	100 633 000	104 153 000	105 161 000	<b>510 352 000</b>
<b>Priority area 3. Build a highly motivated, skilled, and equitably distributed community health workforce</b>	829 887 000	802 424 000	883 151 000	963 704 000	758 024 000	<b>4 129 184 000</b>





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<b>Priority area 4. Improve community health data reporting systems</b>	160 521 000	87 182 000	86 750 000	86 750 000	87 992 000	<b>509 195 000</b>
<b>Priority area 5. Increase access, coverage and utilization of community health services</b>	517 517 000	342 625 000	399 513 000	374 775 000	388 171 000	<b>2 022 601 000</b>
<b>Priority area 6. Ensure availability and timely distribution of community health commodities and supplies</b>	96 943 600	65 265 600	65 265 600	65 265 600	65 577 600	<b>358 318 000</b>
<b>Total cost</b>	<b>1 834 285 100</b>	<b>1 511 923 600</b>	<b>1 655 330 600</b>	<b>1 717 665 600</b>	<b>1 529 461 600</b>	<b>8 248 666 500</b>





## Return on Investment

Benefits

Productivity

Employment

Insurance

$$\frac{\text{Total Benefits}}{\text{Total Program Costs}} =$$

**ROI**

Scaling up Community Health interventions in Nairobi can generate up to **14x** Return on Investment (ROI) - which means that **for every one Kenya Shilling (KES) invested in Community Health, an economic return equivalent to KES 14 KES can be realized**



## What next?



Strengthen and **integrate CH across all health programs**, including within county strategy documents and plans



**Implement the Community Health Implementation Plan** and CHS Act fully: **Prioritise community health within the existing allocation** of general government expenditure for health



Build **capacity** of the County Department of Health on **advocacy, resource mobilisation and public finance management to effectively and efficiently** implement community health



Increase on **efficiency savings in health**

- Aligning community health investments to reduce fragmentation across vertical disease areas, projects and sectors.



Advocate and mobilize stronger **political commitment/prioritization** for financing and sustaining CHP programs



Lobby and strengthen **collaboration** with the **Ministry of Finance, National government, communities and partners** with a strong case for increased spending on health esp. community health



Strengthen **public financial management systems** to support health sector priorities including Community Health



**Increase the fiscal space for health**

- Increase internal revenue generation
- Explore additional and innovative funding sources for community Health programmes



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# Nairobi community health has a high ROI, however, the 1:14 return is only possible with a “strong program”



County leadership in planning, executing and monitoring



High-quality, integrated management



CHP remain part of the frontline PHC teams



Adequate resources, tools and supplies



Engaged communities



Effective incentives and remuneration



High-impact training



Sustainable financing



Supportive supervision and training



On-going monitoring and evaluation







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