Evidence Brief | Spotlight Series No. 1

*This brief draws on the presentation 'From Climate-Health Data to Decision Intelligence: Evidence from SOSCHI Indicators' presented by **Dr. Etse Yawo Dzakpa** (African Institute for Mathematical Sciences, Rwanda) and **Dr. Vijendra Ingole** (Office for National Statistics, United Kingdom) at the first CAPCHA Spotlight Webinar Series themed '**Who Owns Climate–Health Data in Africa?'***

*Compiled by the CAPCHA Team at Africa Research and Impact Network: **Ann Irungu, Maria Nailantei, and Florence Onyango.***

Who Owns the Data That Could Save African Lives?

Across Africa, health workers are watching a pattern they cannot yet officially measure. Malaria cases spike after certain rains. Hospital admissions climb when temperatures soar. Suicide rates rise quietly in communities hit hardest by drought and displacement. The connection between climate and health is visible to anyone on the ground, yet most national health systems have no formal way to track it, attribute it, or act on it with precision.

But here is the deeper question this webinar series was asking: even when that data exists, ***who controls it? Who interprets it? And whose priorities does it serve?***

A Framework Built for Attribution; But Who Holds the Keys?

The **Standard for Official Statistics on Climate-Health Interactions (SOSCHI)**, funded by the Wellcome Trust and hosted on the UN Global Platform, offers a compelling technical answer to Africa's climate-health data gap. It is a statistical framework designed to embed climate-health surveillance directly into official government systems, translating climate and health data into actionable decision intelligence rather than producing findings for a distant shelf.

SOSCHI tracks three interconnected burdens. Climate-attributable infectious diseases; diarrheal illnesses, malaria, and vector-borne conditions linked to heat and rainfall. Mortality and hospital admissions connected to heat and cold exposure, including occupational heat stress and suicide rates as a measurable proxy for the mental health toll of climate disruption. And deaths attributable to outdoor air pollution and wildfire smoke, a burden growing silently and unevenly across the continent.

The framework is open-source, built on tools that work within resource-constrained settings, and designed to slot into national health information systems like DHIS2. On paper, it puts the infrastructure of data sovereignty within reach.

The Malaria Case: What Anticipatory Data Could Do

To understand what is at stake, consider malaria. When temperatures sit between 20 and 30 degrees Celsius, mosquito life cycles accelerate and parasites develop faster. When rainfall creates breeding sites in high-burden districts, transmission surges. Yet most health ministries still distribute nets and spray campaigns on fixed calendar schedules, arriving after the crisis, not before it. SOSCHI addresses this by pairing routine health data with climate information from national meteorological agencies and international sources like NOAA. The result is monthly, district-level, attributable intelligence, telling a ministry not just that malaria is rising, but where, why, and when to act before it does. In Ghana, for instance, this means pre-positioning resources before the May seasonal onset rather than responding to it weeks later.

This is the shift SOSCHI makes possible: from reactive health systems to anticipatory ones. From data that describes what happened to intelligence that shapes what happens next.

But Anticipation Requires Ownership

Here is where the technical and the political converge. Anticipatory health systems only work when the data feeding them reflects local realities; local climate patterns, local disease ecologies, local community contexts, and local definitions of vulnerability. When data is collected through external frameworks, interpreted through outside priorities, and governed by institutions beyond African borders, the intelligence it produces may be precise but it will rarely be contextually just. Africa is not short of data. It is short of control over its own data. Climate observations flow outward to global platforms. Health records sit in systems designed by international partners. Research findings are published in journals accessible to few and actionable by fewer. The communities carrying the heaviest climate-health burdens are often the last to see, shape, or benefit from the evidence generated about their own lives. SOSCHI's open-source design and its push to institutionalize surveillance within national systems are steps in the right direction. But tools alone do not transfer power. Real data sovereignty requires African governments, institutions, and communities to own the infrastructure, set the research agenda, lead the analysis, and determine how findings are used, not merely participate in frameworks designed elsewhere.

What This Means for Decision-Makers

The recommendations emerging from this work are clear. National health systems across low- and middle-income countries should embed climate-health surveillance into existing platforms like DHIS2 as a routine function, not a donor-funded add-on. Health ministries should use monthly attributable data to pre-position resources seasonally and spatially, shifting from calendar-based to evidence-based intervention timing.

But the CAPCHA Spotlight Series is asking something further. As Africa builds these systems, the continent must insist that the data architectures being constructed are governed by African institutions, informed by community knowledge, grounded in equity, and protected from extraction. Because a health system that anticipates climate shocks but does not reflect the priorities of the people it serves, is not a just system, it is simply a more sophisticated one.

For open-source tools and indicator frameworks: UN Global Platform | SOSCHI Initiative