

Emergent trends and best practices for strengthening community health information systems, data quality and data use



(Photo: Ramatou Niambele – ASC, Mali; M. Crook)

Implementing integrated community case management at scale involves thousands of diverse community health workers providing services in the hardest to reach, most deprived communities where formal services have failed to adequately deliver the most basic preventive and curative care – systems for routine monitoring must be designed to fit this context, place the end-user at the forefront, and align with the capacity for response.

Source: Guenther T et al, 2015;

http://www.jogh.org/documents/issue201402/Guenther_Final.pdf

Getting a seat at the HMIS table



Reducing routine indicators to the minimum necessary to support effective management

18 → 12?

Institutionalizing capacity



UiO : Department of Informatics
University of Oslo

DHIS 2 Academy:

Regional training program in East Africa, West Africa, Asia, Latin-America



Advanced DHIS 2 Academy, Entebbe, 4-13 June 2013



UiO : University of Oslo



Advanced e-DHIS 2 Academy

East and South African region (20th to 31st May 2013)

UiO : University of Oslo



DHIS 2 Academy Eastern and Southern Africa, Uganda, 2013
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Generating demand for data

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Data Demand and Use Tools

The data demand and use strategy begins with an assessment that helps stakeholders, policy-makers, and monitoring and evaluation (M&E) practitioners determine points of entry for data demand and use intervention.

Once specific needs are identified, [data demand and use](#) core tools can be utilized to stimulate data demand and capacity building and enhance evidence-based decision making. These core tools are all available in one publication, [Tools for Data Demand and Use in the Health Sector](#), or may be accessed separately below:

Quick Guide: Data Demand and Use in the Health Sector

This pocket manual serves as a cursory reference to the tools used to improve the demand for and use of information in health decision making. Each of the tools presented in this tool kit can be modified and adapted to fit the needs, timeline, and budget of the context in which they are being used.

Building a culture of data use and quality

Bulletin of the World Health Organization

Print version ISSN 0042-9686

Bull World Health Organ vol.90 n.5 Geneva May. 2012

<http://dx.doi.org/10.2471/BLT.11.099580>

LESSONS FROM THE FIELD

Improving quality and use of data through data-use workshops: Zanzibar, United Republic of Tanzania

Box 1. Summary of main lessons learnt

- The outcomes of the data-use workshops demonstrate and validate our hypothesis that the more data are used, the more data quality will improve, leading to significant innovations in the use of information and breaking the vicious cycle of non-use and poor quality of data.
- An integrated framework for HMIS, using a national data warehouse framework, provides an enabling environment in which actors, health programmes and systems can “speak to each other”, which is the foundation for improving health systems.
- Regular data-use workshops, with self-assessment and peer critique and discussion of the data presented, provide a powerful means of building a strong evidence base for HMIS improvements.

Build on existing HMIS with mobile applications

Strengthening the delivery of integrated community case management (iCCM) in two districts of Eastern Province, Zambia

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See handout on this study

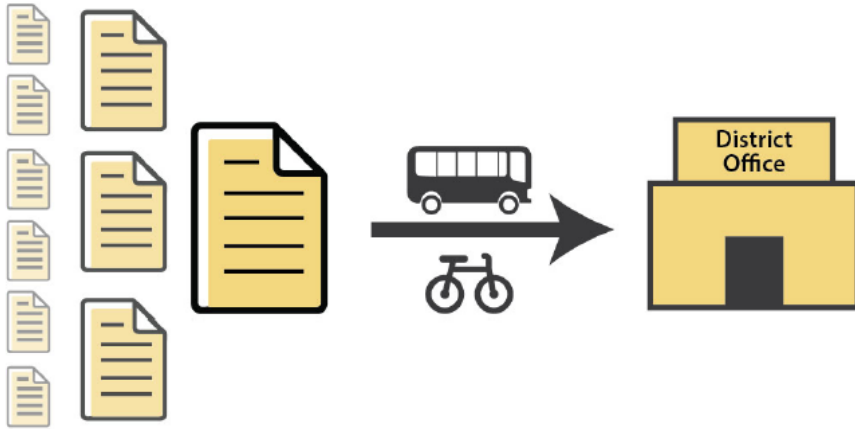
iCCM DHIS-2 Mobile System Applications

- Aggregate Application - weekly reporting of:
 - Cases seen and managed and referred by CHWs
 - Reports and requisitions of iCCM drugs and RDTs
- Tracker Application - used to:
 - Submit CHW referral forms
 - Track patients referred by CHWs to health facilities
 - Support mentorship
 - Submit mentorship reports by supervisors

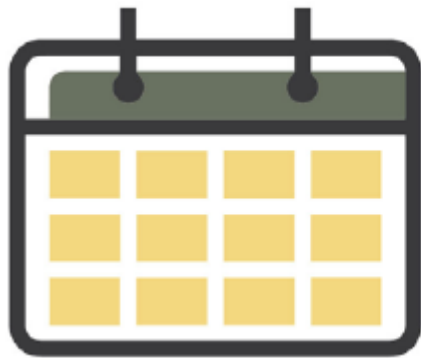


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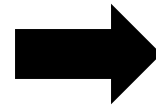
Use of mobile reporting to reduce delays in data transmission



Physically transporting paper-based forms from health facilities to district offices cost an average rural district **\$34,000 to \$42,000** per year.



45
days



Near real-time data visibility

Source: Akros, Zambia

Building scorecards for management into the HMIS

eHMIS Home Scorecards Reports RMNCH ARV Ordering

MOH - Uganda Scorecard for September 2015

Org Unit	Reporting Rate	% Of Children Aged Below Five Years With Confirmed Malaria	% H Fs Without Stock Outs Of O R S Combined With Zinc	% Completeness Of C H W I V H T Reporting
Kaabong District	100.0	2.0	75.7	
Koboko District	100.0	2.5	91.7	
Nakapiripirit District	100.0	4.7	51.9	
Moroto District	100.0	0.2	76.3	
Napak District	100.0	1.7	77.8	
Zombo District	100.0	1.0		
Moyo District	100.0	8.1	70.0	
Yumbe District	100.0	4.3	84.2	
Kiboga District	93.1	0.6	34.0	
Ngora District	100.0	2.2	100.0	
Amolatar District	100.0	1.4	88.9	
Kiryandongo District	100.0	3.4	72.0	
Bukomansimbi District	100.0	1.3	52.9	

Social accountability: Supporting a more radical engagement with the public



Community reports fed into National and District Dashboards for review, response and tracking

Developing dashboards that make sense to users and help them do their jobs

dhis2 DHIS 2 Demo Maintenance Services Help

User Name Write feedback

Malawi - Mangochi - Supervision Areas 2014-Q1/2

Select intervention: Focused Antenatal Care
 Select organizational unit: District

Select intervention, organizational unit & time period

Profile Messages Interpretations Groups

Add Manage Share < > Antenatal Care Delivery Immunization Nutrition Reporting Rates Reproductive Health

Focused Antenatal Care

Major Bottlenecks highlighted

6 Determinants displayed in Bottleneck Analysis

Additional Indicators

Indicators	Districts Average	Bottlenecks Prioritized	Chilga	Makanyira	Malomboni	Monyanya	Namwera	Boma	Mzumbe	St. Martins
Commodities	70%									
Human Resources	35%	B1								
Geographic Areas	40%									
Utilization	100%									
Continuity	40%	B2								
Effective Coverage	10%									
Additional Indicator 01	10%									
Additional Indicator 02	15%									
Additional Indicator 03	20%									
Additional Indicator 04	25%									

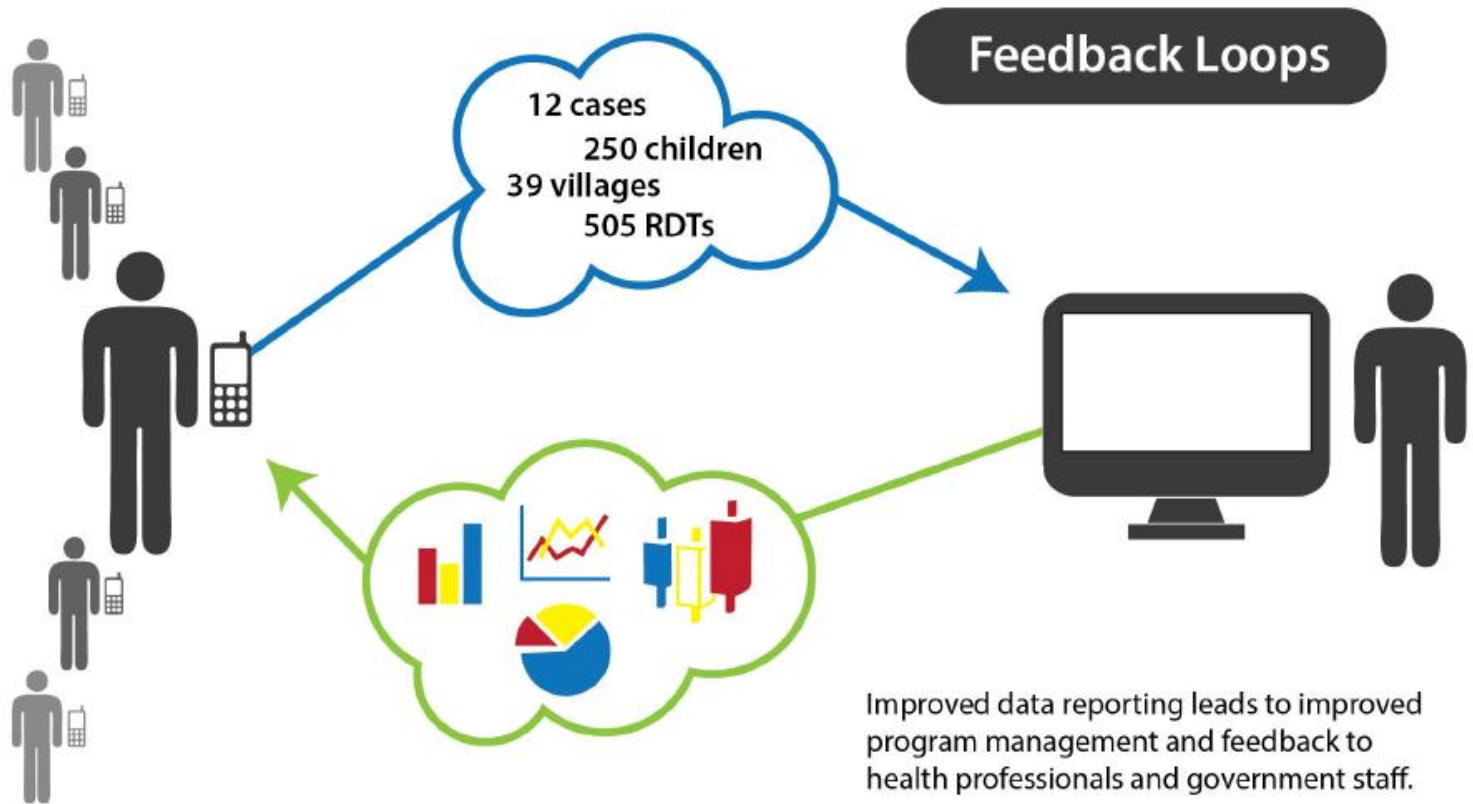
Matrix displays (in red) sub-organizational units where there are bottlenecks

Bottlenecks, root causes and solutions documented

Bottleneck 1: Human Resources
 Root cause B1: Training on FANC overdue
 Solution B1: Train staff on FANC

Bottleneck 2: Continuity
 Root cause B2: ANC4 coverage low due to late ANC1
 Solution B2: C4D on timeliness of ANC1

Feedback loops



Source: Akros, Zambia

Tracking management response

Or health facility ←

Management Response Tracker								
District	Not due	Due soon	Overdue	Open	Closed	% closed	% Overdue	Avg. Response Time
Buikwe	153	106	15	121	2	2%	12%	62 days
Bukomans.	20	33	4	37	1	2%	12%	34 days
Butambala	21	22	6	28	5	18%	21%	20 days
Buvuma	148	111	17	128	10	13%	13%	7 days
Gomba	104	92	13	105	5	5%	12%	5 days
Kalangala	19	25	1	26	5	19%	4%	5 days

Use of LQAS for periodic data quality assessments

J Community Health (2015) 40:625–632
DOI 10.1007/s10900-014-9977-9



ORIGINAL PAPER

Data for Program Management: An Accuracy Assessment of Data Collected in Household Registers by Community Health Workers in Southern Kayonza, Rwanda

Tisha Mitsunaga · Bethany L. Hedt-Gauthier · Elias Ngizwenayo ·
Didi Bertrand Farmer · Erick Gaju · Peter Drobac · Paulin Basinga ·
Lisa Hirschhorn · Michael L. Rich · Peter J. Winch · Fidele Ngabo ·
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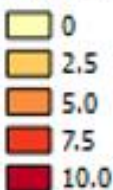
Published online: 11 December 2014
© Springer Science+Business Media New York 2014

Mchinji, Malawi

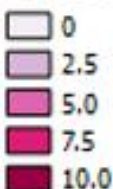
Legend

- Hospitals (functional)
- Health centres (functional)
- Village Clinics (functional)

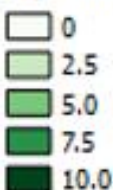
Pop density (per 100m square)



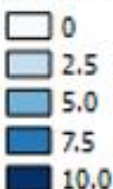
Pop density within 5km and 8km of hospital



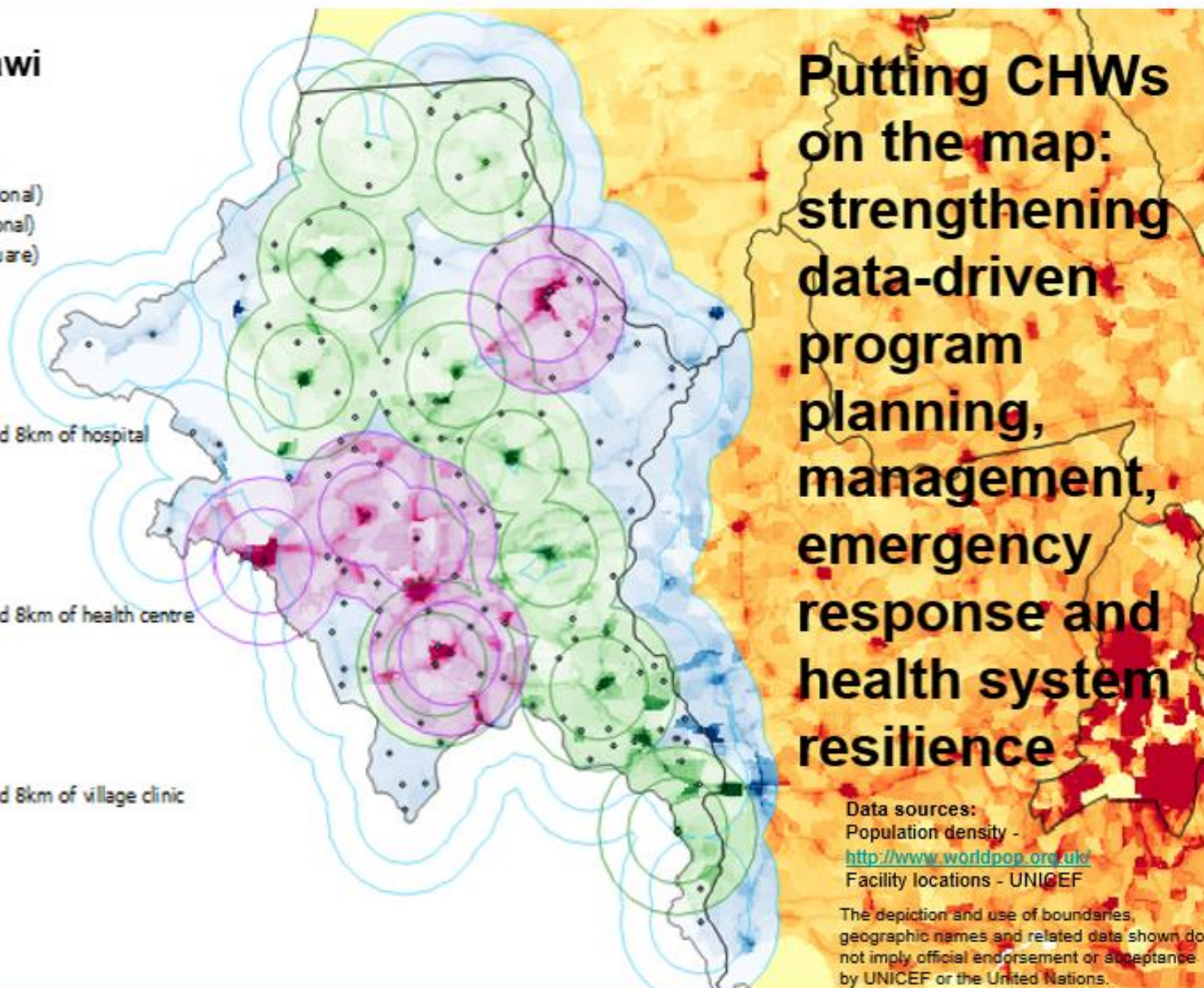
Pop density within 5km and 8km of health centre



Pop density within 5km and 8km of village clinic



UNICEF, 2015



**Putting CHWs
on the map:
strengthening
data-driven
program
planning,
management,
emergency
response and
health system
resilience**

Data sources:

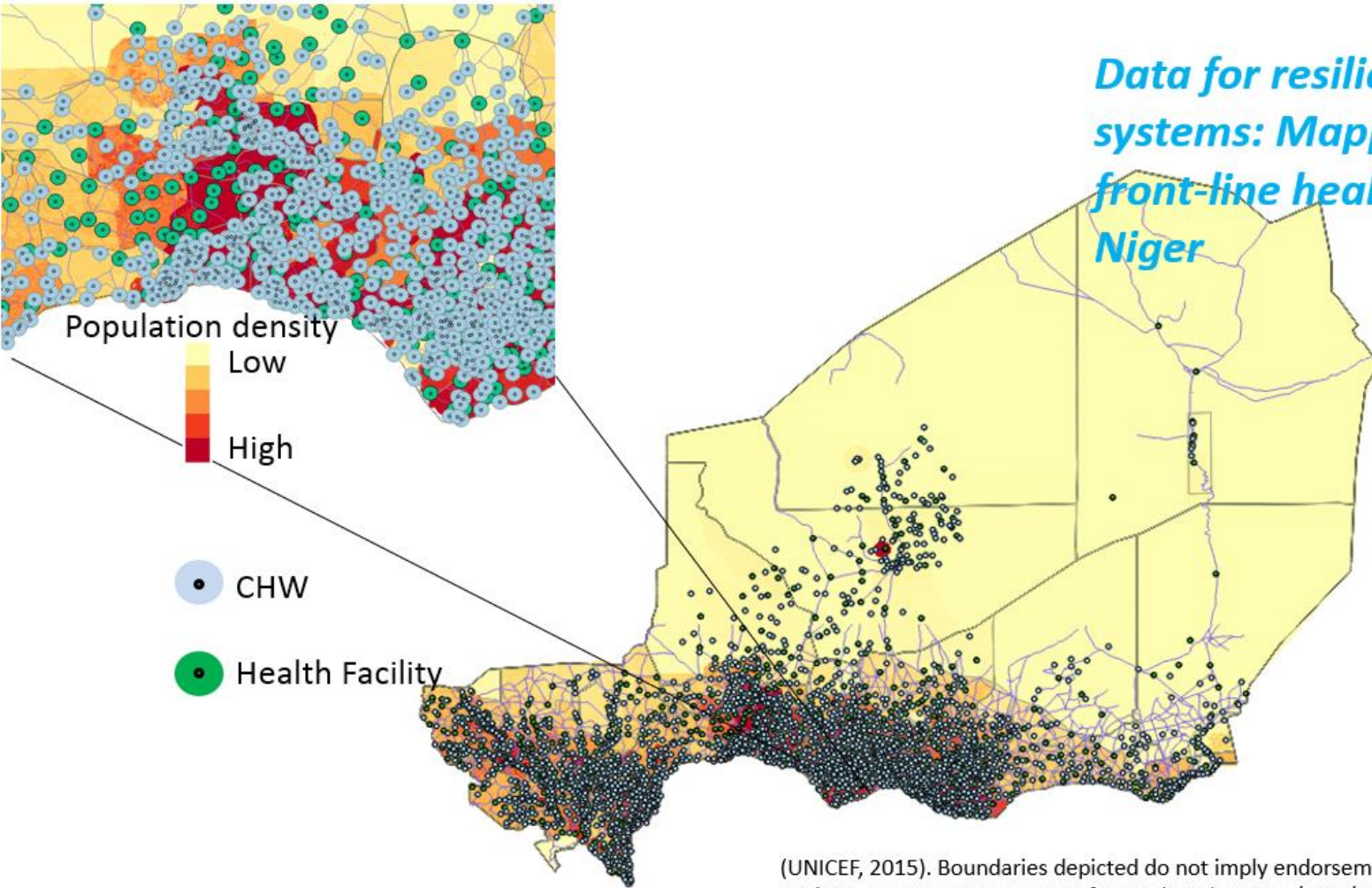
Population density -

<http://www.worldpop.org.uk/>

Facility locations - UNICEF

The depiction and use of boundaries, geographic names and related data shown do not imply official endorsement or acceptance by UNICEF or the United Nations.

Data for resilient health systems: Mapping CHWs and front-line health facilities in Niger



(UNICEF, 2015). Boundaries depicted do not imply endorsement by UNICEF or the United Nations. Source: 2013 Census of CS and CSI (UNICEF / INS / MOH); worldpop.org NER14adjv1

Best / promising practices

- Integrate with and build on existing national HMIS
 - Mobilize high level political support within MOH and among partners
 - Prepare for the “windows of opportunity” (e.g. HMIS reform / revision)
 - Get a seat at the HMIS TWG
 - Support coordinated support to CHIS and HMIS
 - Avoid parallel systems, including donor-specific or vertical program registers, and fragmented mHealth solutions

Best / promising practices

- Focus on the needs of end-users and design to meet those needs
- Support standards-based interoperability of HMIS sub-systems
- Reduce indicators to the minimum necessary (e.g. the 12)
- Disaggregate facility and CHW data
- Develop dashboards that respond to users needs
- Promote rapid feedback to end-users at all levels, but particularly CHWs and supervisors

Best / promising practices

- Build on existing management practices / structures (e.g. monthly / quarterly review meetings) to promote virtuous cycles of data use and data quality
- Share data beyond the usual suspects in the health sector (e.g. share with civil society, news media) to promote transparency and accountability

For Group Work

Answer the following questions:

1. What are the challenges for M&E within your GF grant?
 2. What is your plan for addressing these challenges?
- In your group discuss your GF Scaling up iCCM M&E Plan and opportunities to leverage the M&E funds to strengthen monitoring of iCCM in your country. Give particular attention the following areas:
 - Where are you in the HMIS review / revision cycle? Is there an opportunity during the life of the GF grant to influence HMIS review / revision
 - What activities will you support to strengthen routine HMIS for iCCM (e.g. integrate iCCM data with HMIS; develop indicator and quality standards; disaggregate facility and CHW data; develop dashboards; integrate data from national georeferenced master CHW list; build capacity on use of HMIS; support data use / quality workshops)?

For Group Work

- What activities – complementary to strengthening routine HMIS -- will you undertake (e.g. mapping CHWs and developing a national master CHW list; KAP / coverage surveys)
- What implementation research will you undertake?



Thank you!

Questions?

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