LLIN Distribution in Ebola-affected Countries: Overview and Country Experiences

Photo: globalnation.inquirer.net

Photo: Stop Palu Guinea

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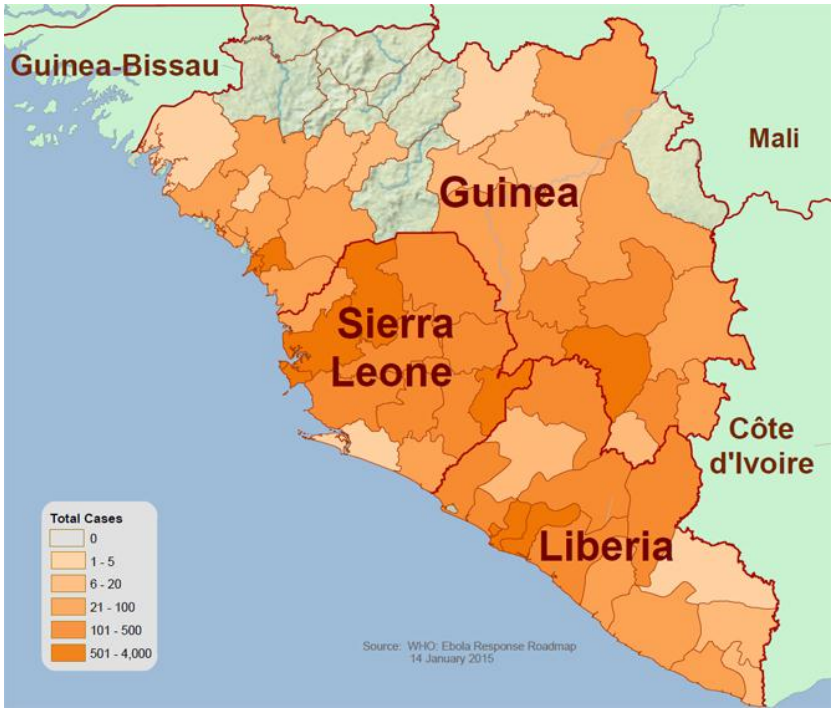
Outline of Presentation

- Ebola context in West Africa and malaria
- WHO guidance for LLIN programs in Ebola-affected countries
- Balancing the need for LLIN and case management activities in this setting
- Guinea's experience with routine distribution
- Sierra Leone's experience
- Next steps

The Ebola Context as of 23 January 2015



COUNTRIES	TOTAL CASES	LABORATORY CONFIRMED	TOTAL DEATHS
GUINEA	2873	2545	1880
LIBERIA	8524	3136	3636
SIERRA LEONE	10400	7921	3159
TOTAL	21797	13602	8675

INFECTIOUS DISEASE

Ebola obstructs malaria control

Outbreak is shutting down prevention and treatment programmes in West Africa.

BY ERIKA CHECK HAYDEN

As the Ebola death toll spirals into the thousands in West Africa, the outbreak could have a spillover effect on the region's deadliest disease. The outbreak has virtually shut down malaria control efforts in Liberia, Guinea and Sierra Leone, raising fears that cases of the mosquito-borne illness may start rising — if they haven't already.

So far, at least 3,000 people are estimated to have died of Ebola in Guinea, Sierra Leone and Liberia in the current outbreak, although World Health Organization (WHO) staff acknowledge that official figures vastly underestimate the total. By contrast, malaria killed more than 6,300 people in those countries in 2012, most of them young children. Overall, malaria deaths have fallen by about 30% in Africa since 2000 thanks to national programmes supported by international funding agencies such as the Global Fund to Fight AIDS, Tuberculosis and Malaria, the US Agency for International Development and the WHO's Roll Back Malaria initiative. The schemes distribute free bed nets to protect sleeping children from mosquitoes, train health workers to find malaria cases and offer tests and treatment at no charge to patients.

But the Ebola outbreak has brought those efforts to a standstill in the three affected countries. "Nobody is doing a thing," says Thomas Teuscher, acting executive director of the Roll Back Malaria Partnership, based in Geneva, Switzerland.

He says that malaria drugs are sitting in government warehouses, especially in Liberia and in Guinea, where medical supply trucks have been attacked by people angry with the government's handling of the Ebola outbreak. Liberia had planned a national campaign to distribute bed nets this year, but Teuscher says that it may be difficult to launch that now.

Routine health care has collapsed during the outbreak, because both patients and providers have shunned clinics for fear of infection. As a result, tens of thousands of people could die from treatable causes, says Estrella Lasry, a tropical-medicine specialist for medical ▶

WHO/GMP: Guidance on Temporary Malaria Control Measures in Ebola-affected Countries

- Partners: WHO/AFRO, CDC, UNICEF, ALMA

- Objectives:

  1) reduce malaria morbidity and mortality

  2) lower the number of febrile patients with malaria to avoid overwhelming Ebola assessment services

  3) increase the protection of front-line health workers engaged in the fight against these two deadly diseases

WHO/GMP Malaria-Ebola Guidance: LLIN Distribution (1)

1. Mass campaigns can proceed, prioritizing Ebola areas

2. Maintain “no touch” precautions; PPE not required

3. Organize distribution to avoid a large congregation of people

4. Design careful communications: distinguish LLINs for malaria prevention from Ebola

5. Consider door-to-door LLIN distribution, if adequate capacity and within reasonable timeframe

6. Explore door-to-door voucher distribution to simplify logistics

WHO/GMP Malaria-Ebola Guidance: LLIN Distribution (2)

7. Target all inpatient facilities, including Ebola centers

8. Destroy LLINs used by suspected or confirmed Ebola patients: wear PPE, place in plastic bag, incinerate; replace with new LLIN

9. If include LLINs in infection control kits or similar:
   a. Consider safety, added logistics, costs, demands on staff
   b. Encourage care-seeking for febrile diseases

Balancing LLINs vs ACTs/Fever Management in Ebola Context

- **Both ITNs and ACTs reduce fever in the community:**
  - ITNs preventively , ACTs prophylactically post treatment

- **While Ebola doesn't change malaria transmission dynamics, it does impact disease burden as malaria cases go untreated**
  - Treatment with ACTs should remain central to malaria care in Ebola settings

- **LLINs activities should also continue, but distribution could be challenging:**
  - Difficult to plan and implement logistically-complex LLIN distributions
  - May be difficult to find volunteers for campaigns
  - Effect of LLIN use on fever reduction is slower than with ACTs

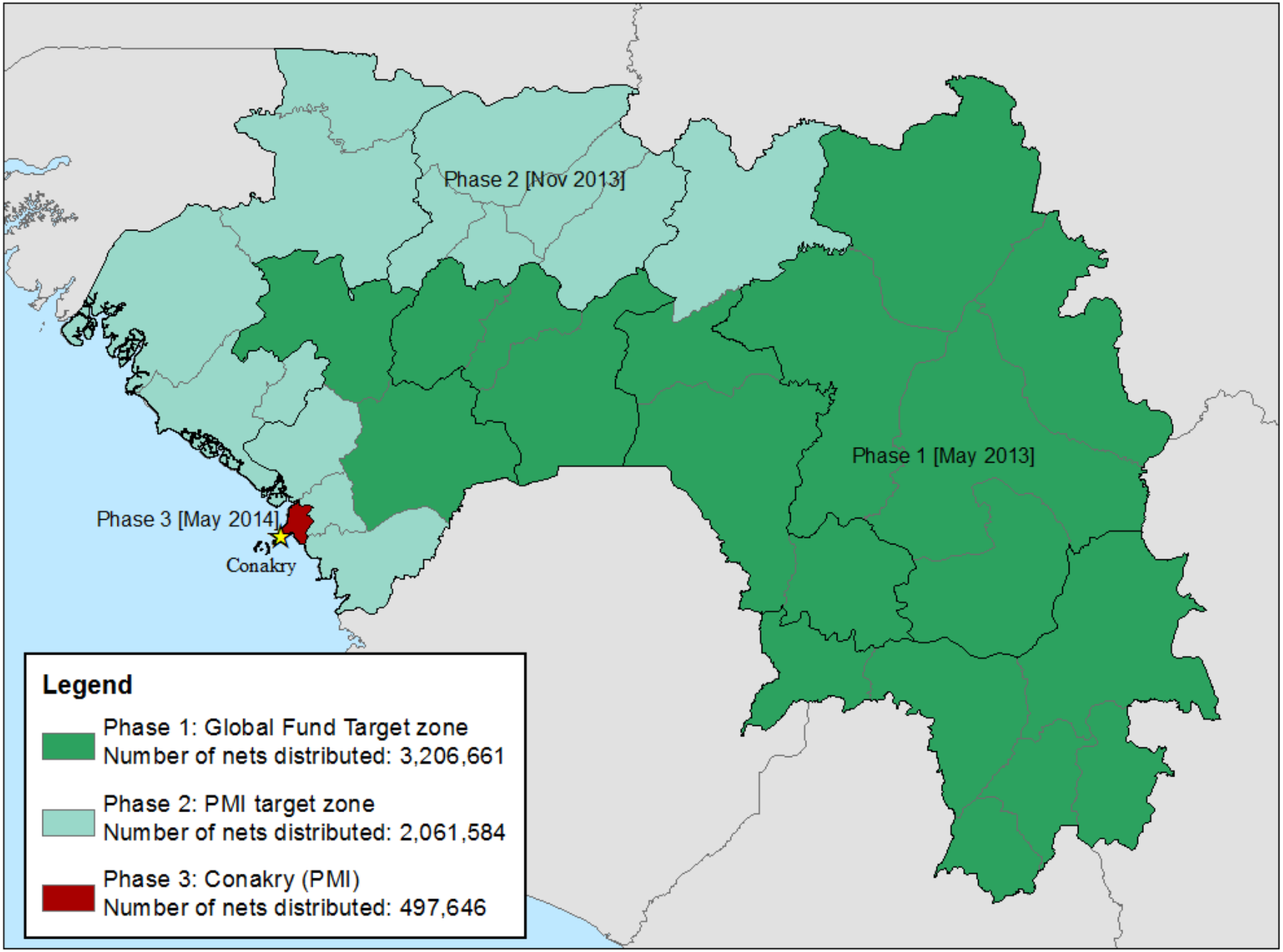
- **Still, LLIN distribution can help increase overall health status of population:**
  - Provides valued commodity where health system poor

WHO/GMP Malaria-Ebola Guidance: Routine LLIN Distribution

Routine distribution should continue both during and after campaigns:

- Need remains to replace used and torn LLINs
- However, distribution must be feasible and already in national policy

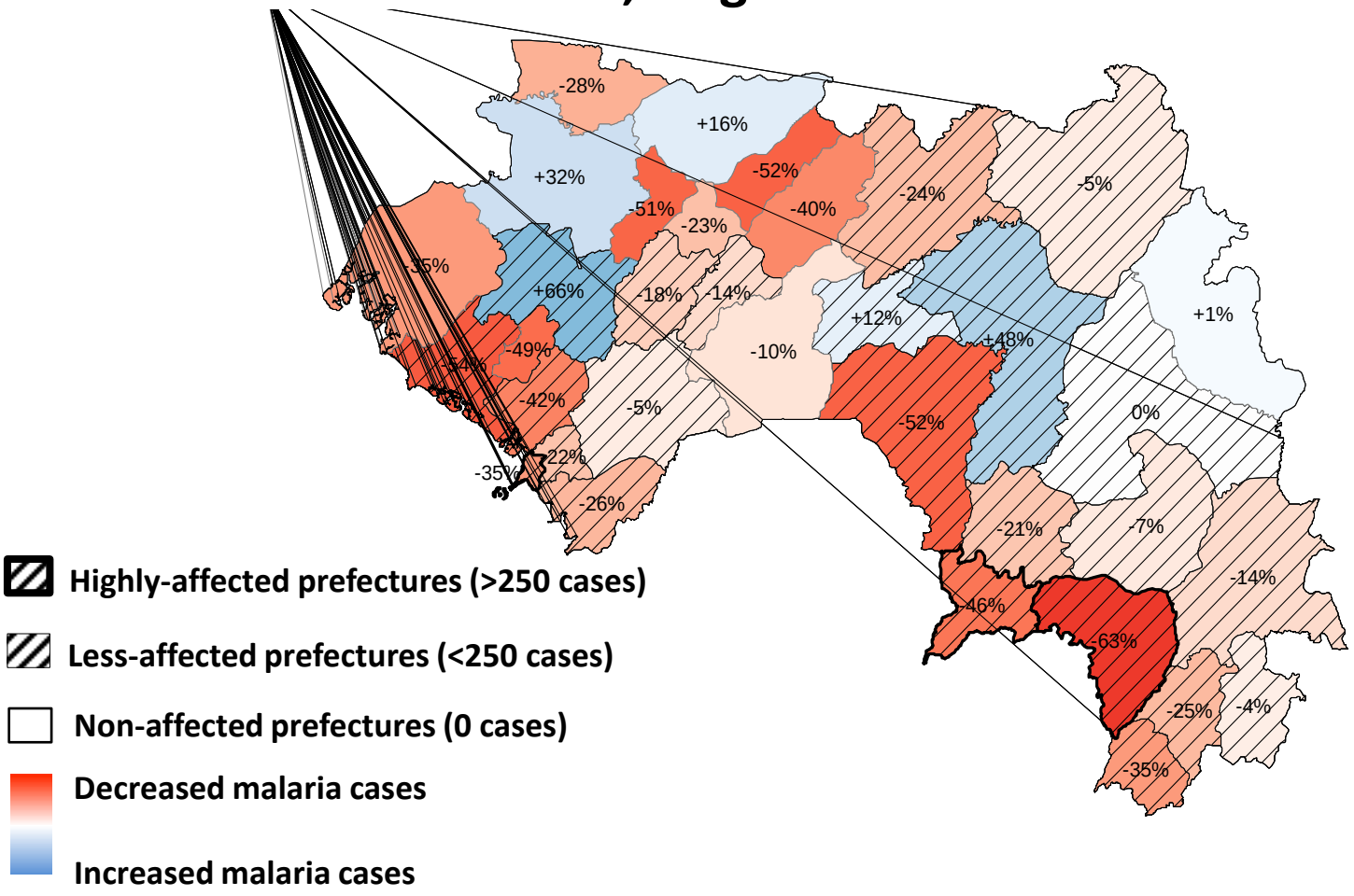
Guinea LLIN Mass Distribution Campaign 2013-2014



Guinea Mass Campaign 2013-2014

- Nationwide UC campaign March 2013 to April 2014.
  - Conakry completed April 2014 despite Ebola outbreak
  - Total distributed: 6.76m LLINs
  - Key partners: PMI and CRS/Global Fund
- No coverage data: 2014 MIS postponed due to Ebola
- Anecdotal reports of lower coverage, lack cooperation in forest region
  - History of population's distrust of central government
  - CRS intervened by working with community leaders
- No routine distribution in place to follow up campaign.

Change in Reported Cases of Malaria by District
Guinea, August – November 2014



Nationwide, estimated decrease of 11% (or 55,000) malaria cases seen at public health facilities resulting from Ebola epidemic.

Source: M. Plucinski et al, manuscript in preparation.

Guinea's First Routine Distribution Strategy

- Free distribution to:
  - pregnant women at first visit to antenatal clinic
  - parent/guardian of children <1 year at first vaccination in EPI clinic
- Vouchers to obtain an LLIN in health facility, with BCC messages
- Data recorded on ANC, EPI and health cards, and on registers
- Supervision 4-6 weeks post training, then quarterly
- Stock estimates based on EPI census data and ANC attendance

Guinea LLIN Voucher for ANC Distribution

No _____/

COUPON DE GRATUITE

Distribution de MILDA en routine pour la couverture universelle

Date……District……

PS/CS……

Nom et prénom de la femme enceinte……

Adresse de la femme et Tel……

……

Nom et signature du prestataire

Echanger gratuitement ce coupon contre une MILDA au niveau du point de vente de médicaments

Accelerating Routine LLIN Distribution During Ebola Epidemic in Guinea

- **Justification:**
  - In national plan
  - Strategy already developed and funded
  - Contributes to reducing febrile illness over time
  - Another way to motivate patients return to facilities

- **Concerns raised:**
  - Security: LLINs “hot commodities” since campaign
  - Some health centers could be closed and without adequate numbers of staff
  - Appropriate storage in prefectures and health centers

Implementing Routine Distribution of 280,000 LLINs in PMI-Supported Areas of Guinea

- Confirmed security and warehouse space
- Developed vouchers and training materials
- Conducted cascade training from regions to prefectures to health centers
- Accelerated schedule by simultaneous training and net delivery
- Delivered 3-months stock to health centers, 3-months stock to prefectures
- Began distribution to patients 01 December 2014 in 14 prefectures
- Completed Conakry training December; delivery delayed to mid-January 2015.

Photos: Stop Palu Guinea

Observations from Coyah Prefecture Health Centers Guinea, December 2014

Photo: Stop Palu Guinea

- PMI-supported prefecture
- Urban and rural HCs visited
- Clear data collection, procedures for handling vouchers and nets
- Anecdotal reports: increased ANC, EPI attendance since LLINs available:
  - Some women attend ANC in health centers with nets rather than hospitals
  - Impact on ANC attendance possibly greater than on EPI
- Record reviews conducted during supervision to validate reports

Preliminary Findings Record Reviews During Supervision in 8 Health Centers Conducting Routine LLIN distribution, Eastern Guinea, October-December 2014

No	Préfectures	Health centers	Units	Change in attendance between Oct/Nov average to Dec 2014
1	BOFFA	Coliah	ANC	**+47**
			EPI	**+41**
		Doupourou	ANC	**+13**
			EPI	**+139**
2	BOKE	Koulifanya	ANC	**+19**
			EPI	**+41**
		Dibia	ANC	**+36**
			EPI	**0**
3	LABE	DAKA	ANC	**+44**
			EPI	**-27**
		LAYE SARE	ANC	**+35**
			EPI	**+230**
4	FORECARIAH	Urbain	ANC	**+14**
			EPI	**+16**
		Urbain	ANC	**+79**
			EPI	**+165**

Source: Stop Palu, Management Sciences for Health, Conakry, January 2015, unpublished

Plan For Routine Distribution of 526,000 LLINs in CRS/Global Fund Supported Regions of Guinea December 2014 – June 2015

- Training of health workers (cascade): December 2014
- Shipment by Central Pharmacy of Guinea: late December
  - Starting with N'zérékoré (forest region)
- Distribution to patients in 251 health facilities: starting 29 December
- Training of community health agents: mid-January 2015

CRS operations director & malaria officer

Implementation Routine Distribution in Global Fund-CRS supported zone

Photo: webguinee.net

- Challenging zone: highest, earliest Ebola burden
  - Field staffing levels reduced for security
- Insufficient GF funds for vouchers, training
- Identified CDC Foundation Ebola funding to cover distribution, help accelerate activities
- Trained regions in December; delayed health center training
- Delivery delayed to January 2015:
  - CRS preferred to complete training before shipping nets

Guinea Routine LLIN Distribution: Next Steps 2015

- Closely monitor LLIN distribution activities
  - Security and adequacy of storage space
  - Record keeping for patients and stocks
  - Distribution process to patients
- Document potential impact of LLIN activities on ANC and EPI attendance
  - Residual benefits to overall clinic attendance?
- Determine best methods for campaign and routine distribution in Ebola context

Sierra Leone LLIN Distribution Campaign, June 2014

- Integrated campaign with MCH Week
  - LLINs (up to three per HH)
  - Vitamin A (6-59 months)
  - Albendazole 12-59 months)
- Vouchers distributed house to house
- Collected LLINs mostly at Peripheral Health Units
- Door to door hang-up campaign late June.
- 3,415,309 nets delivered to households

Sierra Leone Modified LLIN Campaign for Ebola Context, Kailahun District

- Campaign deferred in 3 chiefdoms of Kailahun District where Ebola first confirmed
- Community leaders requested to proceed—high demand for nets
- LLINs already prepositioned, microplanning already completed.
- No albendazole or vitamin A (risk of touching), no hang-up.

Sierra Leone: Routine LLIN Distribution in Ebola Context

- National strategy: distribution in ANC and EPI
- October 2014 survey of Peripheral Health Units:
  - 96% of PHU remained open
  - 39% drop in children treated for malaria
  - Drop in post-natal clinic visits, especially in urban areas
  - “Routine bed net distribution was affected with other programs.”

Strengthen malaria control – to help stop Ebola!

Photo: CDC website Ebola press resources