

## Availability of essential health services in post-conflict Liberia

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**Objective** To assess the availability of essential health services in northern Liberia in 2008, five years after the end of the civil war.

**Methods** We carried out a population-based household survey in rural Nimba county and a health facility survey in clinics and hospitals nearest to study villages. We evaluated access to facilities that provide index essential services: artemisinin combination therapy for malaria, integrated management of childhood illness, human immunodeficiency virus (HIV) counselling and testing, basic emergency obstetric care and treatment of mental illness.

**Findings** Data were obtained from 1405 individuals (98% response rate) selected with a three-stage population-representative sampling method, and from 43 of Nimba county's 49 health facilities selected because of proximity to the study villages. Respondents travelled an average of 136 minutes to reach a health facility. All respondents could access malaria treatment at the nearest facility and 55.9% could access HIV testing. Only 26.8%, 14.5%, and 12.1% could access emergency obstetric care, integrated management of child illness and mental health services, respectively.

**Conclusion** Although there has been progress in providing basic services, rural Liberians still have limited access to life-saving health care. The reasons for the disparities in the services available to the population are technical and political. More frequently available services (HIV testing, malaria treatment) were less complex to implement and represented diseases favoured by bilateral and multilateral health sector donors. Systematic investments in the health system are required to ensure that health services respond to current and future health priorities.

Une traduction en français de ce résumé figure à la fin de l'article. Al final del artículo se facilita una traducción al español. الترجمة العربية لهذه الخلاصة في نهاية النص الكامل لهذه المقالة.

### Introduction

Large-scale armed conflict has both immediate and long-term effects on population health in low-income countries.<sup>1</sup> In addition to violence-related mortality, disruption in the delivery of basic services, including electricity, water and health care raises death rates among non-combatants during conflict and after it has ended. The collapse of health systems, which suffer from flight of health workers, looting and physical destruction of facilities, exacerbates this indirect mortality. Although humanitarian organizations can alleviate suffering in the short run, repairing the health system is a more daunting task.<sup>2</sup>

Liberia emerged from 14 years of civil war in 2003. This conflict resulted in near-total destruction of the country's infrastructure. Today, six years after the end of the war, the electrical grid still operates solely in the capital city, Monrovia. Few roads have been repaired and schools have only recently reopened. The health system was also destroyed in the war: of the 293 public health facilities operating before the war, 242 were deemed non-functional at the end of the war due to destruction and looting.<sup>3</sup> Doctors, nurses and other health workers fled the country, leaving 30 physicians to serve a population of 3 million.<sup>4</sup> Outside Monrovia, where humanitarian agencies provided some services, most of the population has little or no access to health care.

The government of Ellen Johnson-Sirleaf, elected in 2005 in the country's first post-war democratic election, faced a dire

health situation. The under-five mortality rate was 110 per 1000 live births and the maternal mortality ratio was 994 deaths per 100 000 live births, with the latter figure representing a 71% increase from the 2000 estimate of 550.<sup>5</sup> Malaria, which is endemic in Liberia, is a major cause of morbidity and an important contributor to under-five mortality. In 2006, one-third of the population had at least one episode of the disease and an estimated 6000 children died from its complications.<sup>6</sup> Mental health problems related to war trauma and exacerbated by dislocation are also a pressing concern. A 2008 survey found that 40% of the population had self-reported symptoms indicative of major depression and 44% probably had post-traumatic stress disorder.<sup>7</sup> The prevalence of human immunodeficiency virus (HIV) infection in Liberia was estimated at 1.5% in 2007, a figure similar to that in the neighbouring countries of Guinea (1.5%) and Ghana (2.2%) but substantially lower than in eastern and southern Africa, where seven countries had an HIV infection prevalence higher than 15%.<sup>5,8</sup>

In response to the post-war health challenges, the Ministry of Health and Social Welfare, with assistance from donors and international nongovernmental organizations (NGOs), embarked on rebuilding the health system. The ministry's first aim was to expand the provision of primary health care, particularly in rural areas that were underserved even before the war. The 2007 National Health Plan outlined a basic package of health

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**Box 1. Basic package of health services, Liberian Ministry of Health and Social Welfare, 2008****Maternal and newborn health**

- Antenatal care
- Labour and delivery care
- Emergency obstetric care
- Postpartum care
- Newborn care

**Child health**

- Expanded programme on immunization
- Integrated management of childhood illnesses
- Infant and young child feeding

**Reproductive and adolescent health**

- Family planning
- Sexually-transmitted infections (STIs)
- Adolescent health
- Communicable disease control
- Control of STIs/HIV/AIDS
- Control of tuberculosis
- Control of malaria
- Control and management of other diseases with epidemic potential

**Mental health****Emergency care**

AIDS, Acquired immune deficiency syndrome; HIV, Human immunodeficiency virus.

services: essential health services that would be provided without charge at clinics and hospitals throughout the country, ranging from HIV testing to emergency obstetric care.<sup>9</sup> The preventive and curative interventions in the basic package of health services target the disease burden in the country, particularly infectious disease and the high maternal and child morbidity and mortality (Box 1).<sup>10</sup> The ministry partnered with a large group of international and national NGOs to deliver a basic package of health services. Basic packages of health services implemented with support from international and national NGOs have been used to jump-start the rebuilding of the health system in other post-conflict countries such as Afghanistan and Sierra Leone, where they have been credited with increasing the utilization of health services and reducing mortality and morbidity.<sup>11,12</sup>

Liberia's efforts to rebuild the health system are further limited by a low health budget, which at 21 United States dollars (US\$) per capita is approximately two-thirds of the recommended spending on essential health services.<sup>13</sup> Liberia's health sector is also highly dependent on donor assistance: approximately 80% of the country's health spending was financed by foreign donors in 2007 and 2008.<sup>13</sup> The

participation of a large number of donors in health sector reconstruction can present challenges of coordination, reporting and management of competing priorities for the ministry.<sup>14</sup>

The aim of this paper is to describe the availability of essential health services in rural Liberia five years after the end of the civil war. The services examined here – integrated management of childhood illness, basic emergency obstetric care, artemisinin-based combination therapy (ACT) for malaria, HIV counselling and testing and mental health care – are part of the basic package of health services and address priority health conditions in Liberia. We use a combination of population- and facility-level data to describe the availability of clinic inputs (infrastructure equipment and human resources) and scope of services available to villagers at their nearest health-care facility. We further map the provision of each service and propose potential reasons for asymmetries in distribution. Liberia's experience may be instructive for other countries emerging from conflict.

## Methods

### Study area and sampling

Because the aim of the study was to measure availability of services for a

“typical” rural population, we selected Nimba county as the study site on the basis of advice from the ministry and its partners. Nimba county has a primarily rural population, is distant from the capital Monrovia (and therefore unable to rely on health services available there) and like other parts of Liberia, experienced large-scale destruction of its infrastructure. The organization of the county's health services is similar to that of other parts of Liberia and is consistent with the ministry's central health strategy. Thus, we considered Nimba to be representative of rural, deprived areas of the country.

Nimba county is located in northern Liberia, along the border with Guinea and Côte d'Ivoire. It is the country's second most populated county, with 462 026 inhabitants.<sup>15</sup> There are two major ethnic groups, the Mano and the Gio, and most communication is done in local languages and Liberian English – a modified form of English. The majority of the population lives in the northern half of the county, with lightly inhabited rainforest found throughout much of the southern half. Nimba county has a small network of primary roads connecting major towns, and dirt roads connect most small villages to this primary road network. Most dirt roads become impassable for four-wheeled vehicles during the rainy season from April to October.

Data from the 2008 National Census<sup>15</sup> were used to identify a three-stage population-representative sample from Nimba county. The sampling frame consisted of all rural villages in Nimba county; we defined these villages as settlements with a population less than 2000. In the first stage 50 rural enumeration areas were selected with probability proportional to size. Household listings, identified by the name of the head of household, were obtained and 30 households were randomly selected. A Kish table was used to select a respondent in each sampled household. Individuals over the age of 18 years who resided in the selected household were eligible to participate. The ministry and the Institutional Review Board at the University of Michigan provided ethical approval for the study. Written consent was obtained from all respondents.

### Data collection

Study materials included a survey instrument, a village data form and a health facility data form. The survey instrument

included domains related to demographics (including an asset index for wealth status assessment), health status, health care utilization (both formal and informal), trauma exposure and post-traumatic stress disorder. Personal digital assistant devices were used for data collection. The survey was written in English and translated into Liberian English by Liberian study personnel. Four focus groups and 75 pretests were conducted, and survey content and translations were refined based on information gathered during focus group discussions and the pretest results. After the survey instrument was revised, a team of 12 trained interviewers deployed in three teams administered the surveys in participating villages between October and December 2008. A list of geographic information system coordinates for all villages in Nimba county was obtained from the Liberia Institute of Statistics and Geo-Information Services.

Health facilities (including health clinics, health centres and hospitals) closest to the study villages were selected for data collection. Health facility data were collected from 43 of Nimba county's 49 health facilities by record review, supplemented by interviews with each facility's officer-in-charge (typically the head nurse) in 2008. We collected data on personnel, infrastructure and equipment, service volumes and range of services provided. Study staff visually verified the functioning of equipment and presence of health personnel. Basic information was collected from county authorities about the remaining clinics in Nimba county to permit comparison with clinics included in the study.

### Variables and analysis

To assess the availability of clinic inputs we assessed five basic inputs for each facility. These were: presence of at least one skilled health worker (nurse, physician assistant or doctor), electricity, a water pump, at least two stethoscopes (e.g. one for the patient intake and one for consultations) and a refrigerator.

Availability of the basic package of health services was assessed through interviews with the officer-in-charge using the question, "does this facility currently provide the following service?" As index services for the basic package of health services, we selected emergency obstetric care (EmOC) to treat labour and delivery complications (maternal health), the integrated management of childhood illness

(IMCI) (child health), HIV counselling and testing (AIDS control), artemisinin combination therapy (malaria control) and mental health counselling and treatment (mental health).

IMCI is the leading international strategy for tackling childhood diseases that account for most deaths from diarrhoea, pneumonia, measles, malaria and malnutrition in children aged less than five years. The approach includes: provider assessment and action-oriented classification of illness, identification and instruction of treatment or urgent referral when necessary, feeding assessment and counselling of mothers, and follow-up instruction during return visits.<sup>16</sup> Emergency obstetric care, i.e. rapid treatment for complications of labour and delivery, is a key intervention required to reduce maternal mortality globally.<sup>17</sup> Here we focused on the provision of basic EmOC, which consists of antibiotics, oxytocics, anticonvulsants, manual removal of the placenta, assisted vaginal delivery and removal of retained products.<sup>18</sup> Because of the low use of vacuum extractors in primary care settings, we categorized facilities as providing basic EmOC if they reported provision of all of the other components excluding assisted delivery.

Testing for HIV is recommended to assess serostatus, to direct treatment and to prevent transmission of the virus through counselling on behaviour change.<sup>19</sup> ACT is the recommended regimen for the treatment of malaria in the face of increasing resistance to chloroquine. Treatment consists of a two-drug cocktail and requires assessment at a health facility.<sup>20</sup>

Lastly, mental health counselling was included to obtain a baseline estimate of provision, because mental health services are not yet fully integrated in the basic package of health services. The question asked of each clinic's officer-in-charge was whether the facility provided any services for patients who present with mental health problems. This could include any form of counselling, referral or treatment with medicines.

The health facilities nearest to study villages and travel times on foot were assessed through interviews with village chiefs rather than by geographic estimates to account for variable road conditions that may make some geographically more proximal facilities less accessible than further ones. Actual straight-line distances between villages and facilities

were calculated with geographic information system coordinates.

Data for the types of facilities available and specific health service provided were reported as frequencies and percentages. Maps were created to display geographic distributions of service availability at health facilities. All locations were mapped according to the coordinates obtained, and maps were created with ArcGIS Explorer, build 1200 (ESRI, Redlands, USA).

### Results

Of 1464 eligible respondents recruited for household data collection, 1434 (98.0%) completed the questionnaire. More than half (54.0%) of the respondents were male (Table 1), the average age was 39.5 years, and 42.3% had received no formal schooling. Nearly 60% lived within a 2-hour walk of a health facility.

Due to an outbreak of violent conflict during field work, the survey team was unable to obtain information about one health facility that was nearest to one study village. That facility and the corresponding village's 29 respondents were excluded from the health service analysis. In all, 1405 individuals (98% response rate) were included in the service analysis. The population sampled was on average 7.2 km from the nearest health facility (Table 2) and travelled on average 136.1 min on foot to reach that facility. Over two-thirds (67.3%) of the respondents were nearest to a health clinic, whereas 9.9% were nearest to a health centre and 22.8% were nearest to a hospital. All the nearest facilities had ACT protocols and routinely provided ACT, although clinic managers acknowledged that stock-outs were not uncommon. More than half (55.9%) of the respondents could access HIV testing and counselling services at their nearest facility. One-quarter (26.8%) of the respondents could access basic EmOC, 14.5% could access IMCI services, and 12.1% could access mental health services.

Data were collected from 36 clinics, three health centres and four hospitals. Of the six facilities for which data were not collected, two were managed by the government, whereas three were managed by the NGO Africare – which also managed 21 of the 43 facilities where data were collected – and one by a local NGO (MERICI). Forty-three per cent of the respondents' nearest facilities had

all five basic material inputs and human resources.

Fig. 1 presents health service availability at Nimba county facilities. Of the 36 clinics in Nimba county with available information, 14 (38.9%) provided HIV counselling and testing services, one (2.8%) provided IMCI services, none (0.0%) provided EmOC, four (11.1%) provided mental health care services and 39 (100.0%) provided ACT. Of the three health centres, one (33.3%) provided HIV testing and counselling services, none (0.0%) provided IMCI services, one (33.3%) provided EmOC, one (33.3%) provided mental health care services and three (100.0%) provided ACT. Of the four hospitals in Nimba county, all four (100.0%) provided HIV testing and counselling, two (50.0%) provided IMCI services, all four (100.0%) provided EmOC, none (0.0%) provided mental health care services and four (100.0%) provided ACT.

## Discussion

In 2005, two years after the end of a destructive civil war, the Government of Liberia established an ambitious plan to increase access to basic health services.<sup>9</sup> In 2008 we found that villages in Nimba county, in the north of the country, were an average of 7 km away from a functioning health facility and that nearly 60% of the population lived within a 2-hour walk of a facility. All health facilities surveyed had at least one trained health worker (generally a nurse), and between 70% and 86% had some basic infrastructure (e.g. electricity and a water pump) and basic equipment (e.g. stethoscopes and a refrigerator). However, fewer than half of the facilities that served the study villages had all five of the basic inputs.

In terms of service availability, although most facilities offered some of the basic package of health services, none of the facilities that served the study villages offered all five index services. The Government of Liberia has set a target that 70% of health facilities in the country should provide the full set of the basic package of health services by 2010. That goal is unlikely to be reached based on current findings. The results here are supported by the ministry's recent accreditation survey, which found low provision of essential health services in health clinics.<sup>21</sup>

The relatively slow pace of progress is consistent with the experience of other countries recovering from conflict,

Table 1. Descriptive statistics of a rural population-based sample in Nimba county, Liberia, 2008 (n=1434)<sup>a</sup>

Characteristic	Value
<b>Gender</b>	
Male, no. (%)	775 (54.0)
Female, no. (%)	659 (46.0)
<b>Age in years, mean (SD)</b>	39.5 (16.3)
<b>Education</b>	
No schooling, no. (%)	607 (42.3)
Some schooling, no. (%)	827 (57.7)
<b>Ethnicity</b>	
Mano, no. (%)	549 (38.3)
Gio, no. (%)	779 (55.7)
Other, no. (%)	86 (6.0)
<b>Occupation farmer, no. (%)</b>	1164 (81.2)
<b>Lives within 2-hour walk of a health facility<sup>b</sup>, no. (%)</b>	855 (59.6)

SD, standard deviation.

<sup>a</sup> Totals may not add to 1434 due to missing values.

<sup>b</sup> Clinic, health centre or hospital.

particularly where the health system has been devastated. In Afghanistan, contracting with NGOs and sustained donor

support helped to raise the proportion of the population covered by essential health services from 9% in 2002 to 82% in

Table 2. Characteristics of nearest health facility for study respondents in Nimba county, Liberia, 2008 (n=1405)<sup>a</sup>

Characteristic	Value
<b>Type and proximity of facility</b>	
Nearest facility type	
Clinic, no. (%)	945 (67.3)
Health centre, no. (%)	139 (9.9)
Hospital, no. (%)	321 (22.8)
NGO-managed facility, no. (%)	1263 (89.9)
Mean distance <sup>b</sup> in km, mean (SD)	7.2 (5.5)
Mean travel time <sup>c</sup> in min, mean (SD)	136.1 (126.8)
<b>Staff and equipment in facility<sup>d</sup></b>	
Skilled provider (one or more nurse, physician assistant or doctor), no. (%)	1405 (100.0)
Electricity, no. (%)	978 (69.6)
Water pump, no. (%)	1037 (73.8)
Stethoscopes (two or more), no. (%)	1058 (75.3)
Refrigerator, <sup>e</sup> no. (%)	1203 (85.6)
Full set of basic inputs (at least one skilled provider, electricity, water pump, two or more stethoscopes and a refrigerator), no. (%)	604 (43.0)
<b>Health services provided<sup>f</sup></b>	
Artemisinin combination therapy, no. (%)	1405 (100.0)
HIV testing and counselling, no. (%)	785 (55.9)
Emergency obstetric care, no. (%)	377 (26.8)
Integrated management of childhood illness, no. (%)	204 (14.5)
Mental health care, no. (%)	170 (12.1)

HIV, human immunodeficiency virus; NGO, nongovernmental organization; SD, standard deviation.

<sup>a</sup> 29 respondents (1 village) were excluded from this analysis due to incomplete data at nearest facility.

<sup>b</sup> Geographic distance between village and health facility.

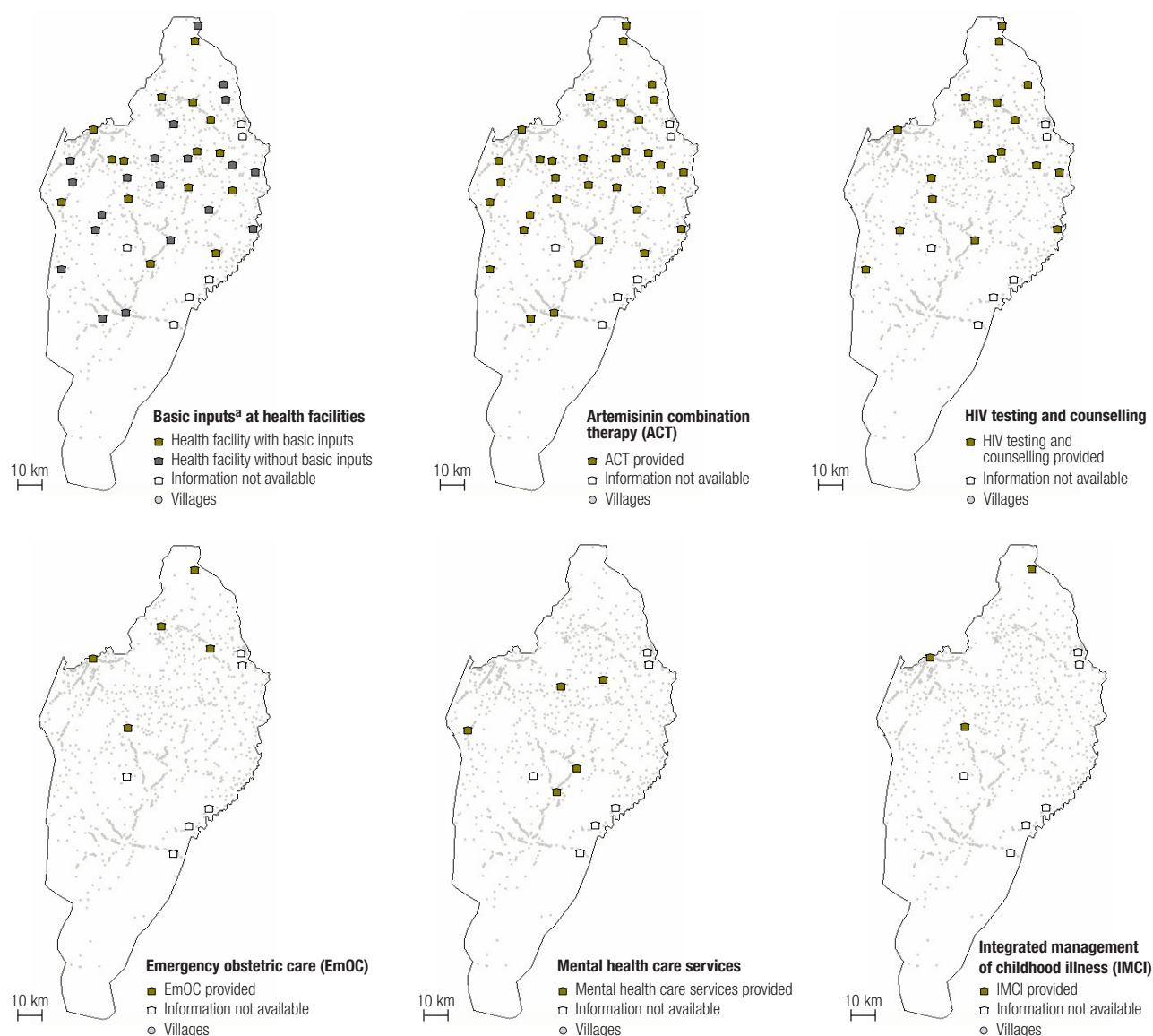
<sup>c</sup> Travel time between village and health facility.

<sup>d</sup> Presence of health personnel and equipment functionality verified at time of data collection.

<sup>e</sup> Most refrigerators were solar powered.

<sup>f</sup> Currently provided services as reported by officer-in-charge.

Fig. 1. Geographic distribution of health services in Nimba county, Liberia, 2008



<sup>a</sup> Basic inputs include at least one skilled provider (nurse, physician assistant or doctor), electricity, water pump, two or more stethoscopes and a refrigerator.

2006.<sup>22</sup> However, the coverage figures are based on facility catchment areas and thus include people who live relatively far from facilities or must travel over difficult terrain.<sup>23</sup> In Liberia too, poor roads and lack of transport options make some “nearby” facilities difficult to reach. In addition, a 2-hour walk each way plus waiting time at a clinic means that a clinic visit for the average study participant is a day-long undertaking. Travel difficulties adversely affect use of facilities: the recent Demographic and Health Survey reported that nearly 70% of women cited the distance to facilities as a major barrier to access.<sup>5</sup>

We found substantial heterogeneity in the availability of the five essential health services. Although all villagers could access ACT for malaria at their

nearest facility and over half could receive HIV testing, just one-quarter had access to basic EmOC. Even fewer could obtain IMCI (15%) and mental health care (12%). With the exception of ACT for malaria, the current availability of services is not proportional to health needs. The most dramatic asymmetry is in child and maternal health services. Although child mortality is lower than during the war, current levels are still 10-fold as high as those of developed countries, and maternal mortality is among the highest in the world.<sup>5,24</sup> Yet despite the high priority these two areas receive from the ministry and the presence of evidence-based national strategies to reduce deaths, a minority of children and mothers can access these life-saving services.<sup>25</sup> By

contrast, HIV counselling and testing are widely offered despite the low prevalence of the infection.

The reasons for the disparities in service provision are both technical and political. From a technical perspective, IMCI and EmOC are more complex services than HIV testing or ACT. The former require detailed policies, specialized training, dissemination of treatment guidelines, functioning diagnostic equipment, a steady supply of several drugs, referral protocols and supervision. Mental health care requires specialized diagnostic and counselling skills and availability of psychopharmaceuticals as well as ongoing follow-up. Assembling these components and transforming them into functioning services is challenging in Liberia’s nascent

health system. By contrast, ACT is a pre-packaged treatment that is simple to deliver and does not require specialized skills. Similarly, HIV testing relies on administering a simple, rapid testing kit and basic training in counselling. Importantly, both ACT and HIV testing are cheap at less than US\$ 3 per person for the service, whereas IMCI has been costed at US\$ 11 per child.<sup>26</sup>

The availability of malaria and HIV services also reflects the priority given to the two diseases by major bilateral and multilateral funders. In 2004, the Global Fund to Fight AIDS, Tuberculosis and Malaria gave Liberia over US\$ 12 million during two years to support the government's policy to scale up malaria prevention and treatment with ACT.<sup>27</sup> An additional US\$ 4 million were contributed by the United States Agency for International Development (USAID), the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) in 2007.<sup>28</sup> More recently, the President's Malaria Initiative of the United States government donated US\$ 12 million for malaria control in 2008.<sup>28</sup> By contrast, the ministry's entire budget for 2008 was US\$ 12 million.<sup>29</sup>

Similarly, HIV/AIDS has been a favoured target of donors, which have invested large sums for prevention efforts, hospital-based treatment of advanced infection and expansion of HIV testing. Between 2004 and 2008 the Global Fund, the Clinton Foundation, USAID, and the United Nations Joint Programme on HIV/AIDS contributed approximately US\$ 30 million to HIV/AIDS control programmes in Liberia.<sup>30,31</sup> Nimba county has several characteristics that may have initially justified a focus on HIV services, such as cross-border migration and trucking routes to and from Guinea and Côte d'Ivoire. However, the 2007 Demographic and Health Survey found the HIV infection prevalence in the North Central region, which includes Nimba county, to be the lowest in the country at 0.5%.

Comparable figures for donor spending on maternal and child health are not easily available, because maternal and child health services are not usually categorized separately from donors' general

support to the health sector. However, as an illustration in fiscal 2008, USAID committed US\$ 7 million to maternal and child health versus US\$ 15.6 million for HIV and malaria.<sup>31</sup>

This study has several limitations. First, due to resource constraints we were not able to visit six of the 49 health facilities of Nimba county. However, our analysis included all but one of the facilities that were nearest to study villages, and thus our assessment reflects the facilities that the population typically uses. Furthermore, five of the six clinics for which data were not available had the same managers and followed the same service delivery protocols as the clinics in the study, and were therefore unlikely to have meaningfully different inputs and service profiles. Second, our assessment of service availability relied on reports of facility health administrators; we did not observe service provision or confirm drug stocks. Consequently, our results should be seen as an upper-bound estimate for available services. Third, given the scope of the post-war challenges across sectors and the slow transition from the humanitarian phase to development, it is probably too soon to make firm conclusions about Liberia's success in expanding the basic package of health services. Lastly, and critically, availability of services – the focus of this paper – is not synonymous with access to services. The concept of access also includes availability, affordability and acceptability or appropriateness of health services.<sup>32</sup> Future research on service utilization would complement this analysis. Quality of care is also crucial to translating health services into improved health, and this is frequently a major challenge in post-conflict countries.<sup>22</sup>

The relatively widespread availability of HIV testing and ACT are consistent with the relatively large donor investments in the two diseases, which in turn reflect availability of funding sources (e.g. the Global Fund) and donor health sector priorities. Although access to testing for HIV infection and malaria treatment is unquestionably important for people with these diseases, it is less clear whether the focus on vertical interventions will contribute to strengthening the health system. The findings of the few studies

available on vertical interventions are mixed, although promising results were found in Rwanda when HIV interventions were accompanied by concomitant investments in health infrastructure.<sup>33,34</sup>

A recent assessment of synergies between global health initiatives and efforts to strengthen health systems in developing countries led by WHO supported the need for better integration of disease-specific activities with investments in the health system.<sup>35</sup> The participants called on development partners and countries to “infuse the health systems strengthening agenda with the sense of ambition, the scale, the speed, and the increased resources that have characterized the [global health initiatives]”.<sup>36</sup> Liberia has taken some steps in this direction by creating the Office of Financial Management to help coordinate donor health investments and by encouraging donors to pool their funding to permit better integration of health sector programming.<sup>29</sup> Bilateral donors such as the United Kingdom Department for International Development and Irish Aid, among others, now contribute to the pool fund. The United States Agency for International Development has merged funding from two Global Health Initiatives – the President's Emergency Plan for AIDS Relief and the President's Malaria Initiative – together with other health and water sector funding to focus on health sector rebuilding that reflects the priorities of the Government of Liberia.<sup>37</sup> These efforts need to be carefully monitored to ensure that they help sustain current services and build a resilient health system that can tackle maternal and child mortality, the mental health burden and health challenges of the future. ■

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## ملخص

## توفير الخدمات الصحية الأساسية في أعقاب انتهاء الصراع في ليبيريا

الغرض: تقييم توفر الخدمات الصحية الأساسية في شمالي ليبيريا في عام 2008، وذلك بعد مرور خمس سنوات على انقضاء الحرب الأهلية هناك.

الطريقة: أجرى الباحثون مسحاً سكانياً منزلياً في المناطق الريفية في مقاطعة نيمبا ومسحاً للمرافق الصحية في العيادات والمستشفيات القريبة من القرى التي أجريت فيها الدراسة. وقيم الباحثون القدرة على الوصول إلى المرافق التي تقدم الخدمات الأساسية: التوليفة العلاجية بالأرتيميزين للملاريا، والتدبير العلاجي المتكامل لأمراض الطفولة، والمشورة والاختبار لفيروس العوز المناعي البشري، والرعاية التوليدية الأساسية الطارئة، ومعالجة الأمراض النفسية.

الموجودات: جمعت المعطيات من 1405 أشخاص (معدل الاستجابة 98%) اختيروا بطريقة اعتيادية ممثلة للسكان على ثلاث مراحل، واختير 49 مرفقاً من أصل 49 مرفقاً صحياً موجوداً في مقاطعة نيمبا بسبب قربهم من القرى التي أجريت فيها الدراسة. وسافر المستجيبون للبحث وقتاً استغرق

136 دقيقة في المتوسط للوصول إلى المرفق الصحي. وأمكن لجميع المستجيبين للدراسة الوصول إلى علاج الملاريا في أقرب مرفق لهم، وأمكن لـ 55.9% منهم الوصول إلى اختبار فيروس العوز المناعي البشري. ولم يتمكن سوى 26.8%، و 14.5%، و 12.1% فقط من المستجيبين الوصول إلى الرعاية التوليدية الطارئة، والتدبير العلاجي لأمراض الطفولة، وخدمات الصحة النفسية بالترتيب.

الاستنتاج: بالرغم من التقدم المحرز في تقديم الخدمات الأساسية، إلا أن قدرة أهالي الريف في ليبيريا على الوصول إلى خدمات الرعاية الصحية المنقذة للحياة مازالت محدودة. ويعود التفاوت الكبير في توفر الخدمات المقدمة للسكان إلى أسباب تقنية وسياسية. والخدمات الأكثر توفراً (مثل اختبار فيروس العوز المناعي البشري، ومعالجة الملاريا) كانت أقل تعقيداً في التنفيذ وقد شكلت الأمراض التي تفضلها الجهات المانحة للقطاع الصحي الثنائية الأطراف والمتعددة الأطراف. ومطلوب توفير استثمار منتظم للنظام الصحي لضمان استجابة الخدمات الصحية للأولويات الصحية الراهنة والمستقبلية.

## Résumé

## Disponibilité des services de santé essentiels dans la situation post-conflictuelle que vit le Liberia

**Objectif** Évaluer la disponibilité des services de santé essentiels dans le Nord du Liberia en 2008, cinq ans après la fin de la guerre civile.

**Méthodes** Nous avons réalisé une enquête en population auprès des ménages dans le comté rural de Nimba et une enquête sur les établissements de soins dans le cadre des dispensaires et des hôpitaux les plus proches des villages étudiés. Nous avons évalué l'accès aux établissements fournissant un certain nombre de services essentiels clés : traitement combiné à base d'artémisinine contre le paludisme, prise en charge intégrée des maladies de l'enfant, conseil et dépistage concernant le virus de l'immunodéficience humaine (VIH), soins obstétricaux d'urgence de base et traitement des maladies mentales.

**Résultats** Des données ont été obtenues pour 1405 individus (taux de réponse : 98 %), sélectionnés à l'aide d'une méthode de sondage à trois degrés, donnant un échantillon représentatif de la population, et pour 43 des 49 établissements de soins du comté de Nimba, sélectionnés pour leur proximité avec les villages étudiés. En moyenne, les sujets interrogés avaient dû effectuer 136 minutes de déplacement pour se rendre dans

un établissement de soins. Tous les sujets interrogés ont pu obtenir un traitement antipaludique dans l'établissement le plus proche et 55,9 % ont pu bénéficier d'un dépistage du VIH. En revanche, seuls 26,8 %, 14,5 % et 12,1 % d'entre eux respectivement ont pu accéder aux soins obstétricaux d'urgence, à la prise en charge intégrée des maladies de l'enfant et aux services de santé mentale.

**Conclusion** Malgré les progrès réalisés dans la prestation des services de santé de base, les habitants ruraux du Liberia ont encore un accès limité aux soins pouvant leur sauver la vie. Les disparités dans la disponibilité des services pour la population s'expliquent par des raisons techniques et politiques. Les services les plus disponibles (dépistage du VIH, traitement contre le paludisme) étaient les moins complexes à mettre en œuvre et correspondaient à des maladies favorisées par les donateurs bilatéraux et multilatéraux du secteur de la santé. Des investissements systématiques dans le système de santé s'imposent pour que les services sanitaires répondent aux priorités actuelles et futures.

## Resumen

## Disponibilidad de servicios de salud esenciales en Liberia tras los conflictos

**Objetivo** Evaluar la disponibilidad de servicios de salud esenciales en el norte de Liberia en 2008, cinco años después de acabada la guerra civil.

**Métodos** Llevamos a cabo una encuesta de hogares basada en la población en el distrito rural de Nimba y una encuesta de establecimientos de salud entre los dispensarios y hospitales más próximos a las aldeas estudiadas. Se evaluó el acceso a instalaciones que prestan servicios esenciales empleados como indicadores: tratamiento combinado con artemisinina contra la malaria, atención integrada a las enfermedades de la infancia, asesoramiento y pruebas del VIH, atención obstétrica de urgencia y tratamiento de las enfermedades mentales.

**Resultados** Los datos empleados corresponden a 1405 personas (98% de respuestas) seleccionadas mediante un método de muestreo en tres etapas representativo de la población, y a 43 de 49 establecimientos de salud del distrito de Nimba seleccionados por su proximidad a las aldeas estudiadas. Todos los encuestados pudieron acceder a tratamiento

antimalárico en el centro más próximo, y el 55,9% pudo acceder a las pruebas del VIH. Solo un 26,8%, 14,5% y 12,1% tuvieron acceso a los servicios de atención obstétrica de urgencia, atención integrada a las enfermedades de la infancia y salud mental, respectivamente

**Conclusión** Aunque se ha avanzado en la prestación de servicios básicos, los liberianos de zonas rurales siguen teniendo un acceso limitado a servicios de salud que salvan vidas. Las razones de esa disparidad de la disponibilidad de servicios para la población son de índole técnica y política. Los servicios más disponibles (pruebas del VIH, tratamiento de la malaria) eran de aplicación menos compleja y correspondían a enfermedades favorecidas por donantes bilaterales y multilaterales del sector de la salud. Hay que hacer inversiones sistemáticas en el sistema sanitario para garantizar que los servicios de salud respondan a las prioridades sanitarias de hoy y del futuro.

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