



## Case study

### **Central African Republic (CAR): Ensuring insecticide-treated net (ITN) access and use in spite of COVID-19, insecurity and health system challenges**

#### **Key enabling factors for maintaining ITN access in CAR during the COVID-19 pandemic**

- The National Malaria Control Programme (NMCP) has built strong relationships across Ministry of Health (MOH) departments and with a large and diverse network of partners. With support from Global Fund Principal Recipient World Vision International (WVI), the NMCP coordinates regional and district health teams as well as national and international humanitarian and health partners to ensure transport and delivery of ITNs to health facilities, especially those in hard-to-reach areas. This allows the NMCP to be flexible in the face of emerging insecurity threats, natural disasters and ongoing health systems challenges in increasing and maintaining access to ITNs.

*"In spite of COVID-19 and many other challenges, the Central African Republic continues to show resilience. Strong partnerships allow the NMCP to coordinate with regional and district health teams, the emergency Health Cluster, and numerous non-governmental organizations (NGOs) to continue to achieve national malaria goals, including for ITN distribution".*

Source: Dr. Christophe Ndoua, coordinating director for the NMCP in the Central African Republic.

#### **Achievements**

- The NMCP **increased ITN distribution in spite of COVID-19 and other challenges**. From January to June 2020, the NMCP distributed 49 per cent more ITNs to pregnant women and 55 per cent more to children under one year than during the same time period in 2019<sup>1</sup>.
- The NMCP succeeded in **coordinating and collaborating with a large number of international and national partner organizations** to deliver ITNs to health centres for distribution during routine antenatal care (ANC) and child immunization visits, using existing resources (transport in particular) available to these partners.

<sup>1</sup> World Vision International (WVI), Email from Byicza, O., 2 December 2020.

- CAR overcame previous reporting challenges and has harmonized reporting to establish a combined reporting system across the different partners who receive ITNs. This unified reporting process reinforces data for decision-making and tracking of ITNs to health facilities and the population.
- Through a combination of mass ITN distribution campaigns, ITN distribution via routine health services, and ITN distribution in response to emergencies, **ITN coverage in CAR remains relatively high in several regions**, particularly those less affected by ongoing armed conflicts<sup>2</sup>.

### Lessons learned and recommendations

- Strong coordination of partners and leadership of the NMCP are essential to ensure continued service delivery in the face of funding or operational shortfalls. “In-kind” contributions, such as transport of ITNs to district and health facility levels, have allowed for ITNs to be available for distribution to pregnant women and children under five years in certain parts of the country.
- Ensuring continuous availability of ITN stocks for distribution through routine channels is not possible without sufficient funding for supply chain functionality to ensure regular and timely resupply.
- Consistent availability of ITN stocks for pregnant women and children completing the routine immunization series is critical for maintaining confidence among caregivers that when they seek services in health facilities they will receive an ITN. This is particularly important in the context of difficulties with accessing health facilities both due to insecurity and fear of COVID-19 transmission.

### Context

The Central African Republic is a landlocked country bordered by Chad, the Democratic Republic of Congo, the Republic of Congo, Cameroon, Sudan and South Sudan. Since 2012, ongoing armed conflicts have risen to catastrophic levels in many parts of the country. These have destabilized government institutions including health systems and have led to sub-optimal implementation of health programmes in CAR.

Of CAR’s estimated population of 4.9 million, 2.8 million (57 per cent) are expected to need humanitarian assistance and protection in 2021, approximately 25 per cent are displaced internally or in neighbouring countries, and some 40 per cent of households face acute food insecurity, according to United Nations Office for the Coordination of Humanitarian Affairs (UN-OCHA)<sup>3</sup>. In spite of the government signature with armed groups of the internationally recognized *Accord Politique pour la Paix et la Réconciliation* (Political Agreement for Peace and Reconciliation) in 2019, human rights and humanitarian international law violations continue.

CAR ranks 188<sup>th</sup> out of 189 countries on the Human Development Index<sup>4</sup>, and, in 2018, more than 70 per cent of the population was living below the international poverty line of USD 1.90

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<sup>2</sup> République Centrafricaine Ministère de la Santé et de la Population (2017). Enquête nationale sur les Indicateurs du Paludisme—Mai 2016.

<sup>3</sup> UN-OCHA (2020). Central African Republic. Retrieved 1 December 2020, from <https://www.unocha.org/car>

<sup>4</sup> <http://hdr.undp.org/en/content/2019-human-development-index-ranking>

per day. In spite of this, economic growth in CAR has outpaced the average growth of neighbouring Economic Community of Central African States (CEMAC) countries since 2015<sup>5</sup>.

Health infrastructure in CAR includes 1,008 public and private health facilities, 823 of which are functional or partially functional. Health equipment has been looted in many cases. Health personnel are very limited, with only one doctor per 24,769 people and one nurse per 20,457 people. CAR has established a community health approach and has one community health agent per 1,643 people<sup>6</sup>.

Average life expectancy in CAR is only 53 years; the maternal mortality is the second highest in the world; one in 25 people 15—49 years of age has HIV; less than half of children are vaccinated against polio, diphtheria and tetanus<sup>7</sup>.

Efforts of the Ministry of Health and Population to reach communities with health services and provide care at health facilities are supplemented by international and national non-governmental organizations as shown in Figure 1 below.

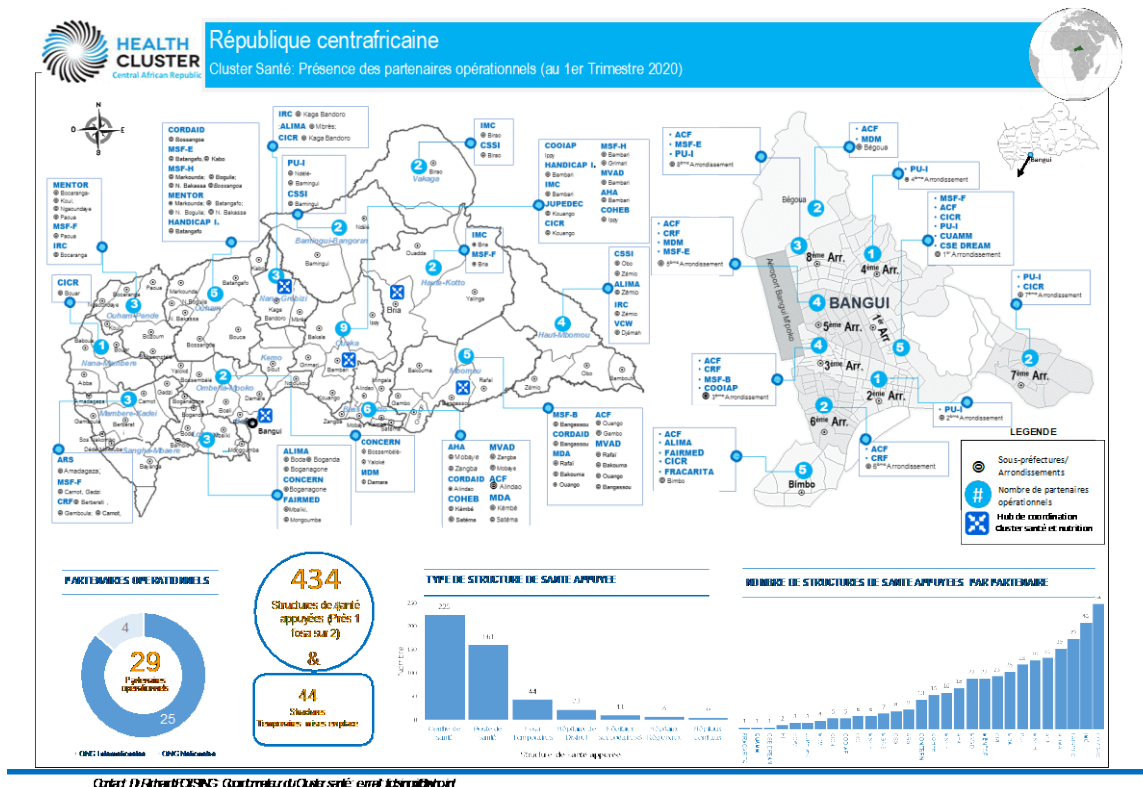


Figure 1: Health cluster map of CAR with partner presence (January 2020)

<sup>5</sup> The World Bank (2020). Central African Republic Overview. Retrieved 24 November 2020, from <https://www.worldbank.org/en/country/centralafricanrepublic/overview>

<sup>6</sup> République Centrafricaine Ministère de la Santé et de la Population (2017). Plan Stratégique National du Lutte contre le Paludisme 2018—2022 étendu à 2023.

<sup>7</sup> World Health Organization (WHO) (2018). The Central African Republic prepares for Ebola response. Press Release 12 June 2018 for the visit of Dr Tedros Adhanom Ghebreyesus, Director-General of WHO to CAR. Retrieved 24 November 2020, from <https://www.afro.who.int/news/central-african-republic-prepares-ebola-response?country=906&name=Central%20African%20Republic>

## Malaria in CAR

Malaria remains the first cause for health consultation in CAR. While all regions of the country are affected by malaria, provision of malaria services is affected by the security and accessibility of the region. CAR identifies key populations at higher risk of malaria due to their limited access to services, including those who are displaced and/or living in zones with high insecurity, pygmies, Fulani nomadic shepherds, miners, street children, and populations living more than five kilometres from healthcare structures (35 per cent of the population)<sup>8</sup>.

CAR's NMCP has set a clear goal in the 2018—2022 (extended to 2023) National Malaria Strategic Plan to contribute to the reduction of all-cause morbidity and mortality in the country by 50 per cent over 2015 levels. Specifically, the vector control objective of the plan is to protect at least 80 per cent of the population with effective interventions by 2023. ITN targets are:

- 100 per cent of households equipped with at least one ITN for every two people
- 95 per cent of children under five and pregnant women sleeping under an ITN<sup>9</sup>

Results from the 2016 Malaria Indicator Survey in CAR show that 49 per cent of households have at least one ITN for every two people, with higher percentages in Bangui (64 per cent) and in health regions one, two and three (57 per cent) which completed mass campaign ITN distribution prior to the survey. The percentage of households with at least one ITN is 92 per cent in Bangui, 86 per cent across health regions one, two, and three, and 47 per cent in health regions four, five, and six. As shown in Figure 2, ITN use is lowest among children five to nine years old (47 per cent) and 10—14 years old (50 per cent). ITN use among children under the age of five is slightly higher (54 per cent). Beyond 15 years, the percentage of people sleeping under an ITN is higher<sup>10</sup>.

An analysis of the 2010 Multiple Indicator Cluster Survey showed that among those with access to an ITN in CAR, use is generally high throughout the country and the year, and fairly equal across wealth quintiles and urban and rural areas<sup>11</sup>.

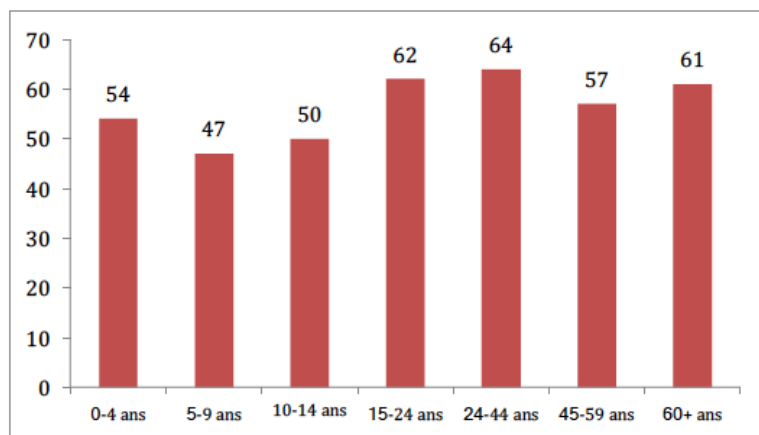


Figure 2: ITN use in CAR by age

Source: National Malaria Indicator Survey, CAR, May 2016

The NMCP is also extending community-based case management of

<sup>8</sup> République Centrafricaine Ministère de la Santé et de la Population (2017). Plan Stratégique National du Lutte contre le Paludisme 2018—2022 étendu à 2023.

<sup>9</sup> Ibid.

<sup>10</sup> République Centrafricaine Ministère de la Santé et de la Population (2017). Enquête nationale sur les Indicateurs du Paludisme—Mai 2016.

<sup>11</sup> PMI (2020). ITN Access and Use Report, CAR. Retrieved 2 December 2020, from <https://breakthroughactionandresearch.org/resources/itn-use-and-access-report/car/>

malaria, diarrhoea, pneumonia, tuberculosis and HIV, with support from WVI, The Mentor Initiative, Médecins Sans Frontières (MSF) and the United Nations Children’s Fund (UNICEF).

## **COVID-19 in CAR**

The first case of COVID-19 in CAR was reported in M’Baiki on 14 March 2020<sup>12</sup>. In mid-December 2020, 4,936 cases and 63 deaths have been reported<sup>13</sup>. The pandemic led to schools being closed from March to October 2020 and a worsening of the humanitarian crisis. Some health facilities are receiving additional support for COVID-19 infection prevention and control, including protective equipment, handwashing devices, and cleaning and disinfection materials. This support is provided by Concern Worldwide with funding from Irish Aid and two new projects by the Bureau for Humanitarian Assistance of the United States Agency for International Development (USAID BHA) and UNICEF. However, due to “severe shortages of basic COVID-19 supplies”, many health facilities and personnel may not have sufficient supplies to prevent and provide testing for COVID-19 as needs grow<sup>14</sup>.

CAR was one of the first countries to mandate facial masks. However, a lack of masks in local markets made this requirement difficult to be carried out. In response, the MOH worked with the World Bank to launch a national cash-for-work programme, the LONDO<sup>15</sup> project, with local tailors to produce two masks per person, up to ten million masks.

COVID-19 in CAR is now spreading at the community level and cases continue to increase. Since the first case of COVID-19 in CAR, health service provision has not been interrupted but restrictions regarding the number of people allowed in health centres were put in place. Initially, population fears of COVID-19 also kept some from seeking care in health facilities.

## **ITN distribution in CAR**

More than 12.7 million ITNs have been delivered to CAR since 2004<sup>16</sup>. ITNs are currently distributed free of charge in CAR through three primary channels:

- ITN campaigns targeted to children under five since 2005; and universal coverage mass campaigns since 2013 to provide one ITN for every two people
- Since 2015, routine services in health facilities for pregnant women during their first antenatal care (ANC) visit and to children under one year at the third dose of their Pentavalent vaccination<sup>17</sup>
- Direct distribution to special groups, for example in camps for internally displaced persons, refugees, boarding schools, hospitals, prisons, Peulh and pygmy groups, fishing villages and

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<sup>12</sup> Alliance for Malaria Prevention (AMP), Moyon J.M., (2020). CAR ITN Campaign Situation Report, 2 November 2020.

<sup>13</sup> <https://www.worldometers.info/coronavirus/country/central-african-republic/#:~:text=Central%20African%20Republic%20Coronavirus%3A%204%2C936%20Cases%20and%2063%20Deaths%20%2D%20Worldometer>

<sup>14</sup> OCHA (2020). CAR Situation Report, 30 November 2020.

<sup>15</sup> In Sango, the national language of CAR, “londo” means to “stand up”.

<sup>16</sup> Alliance for Malaria Prevention (AMP), Net Mapping Project, 2020 Third Quarter Report.

<sup>17</sup> Pentavalent vaccines protect children from five diseases (Diphtheria, Pertussis, Tetanus, Hepatitis B, and Haemophilus influenzae type b (Hib)). Pentavalent vaccines are generally given at six, 10 and 14 weeks old.

military barracks<sup>18</sup>

The National Malaria Strategic Plan also includes strategies which may be considered in the future for ITN distribution, but which the NMCP has not yet implemented. These include ITN distribution through schools and at community level<sup>19</sup>.

### **Mitigating the effects of COVID-19 and other challenges in CAR to maintain ITN access**

In spite of challenges related to COVID-19, the NMCP is undertaking numerous initiatives to achieve the National Malaria Strategic Plan vector control objective and ITN access and use targets.

From January to June 2020, the NMCP distributed more ITNs to pregnant women and children under one year than during the same time period in 2019. This includes 20,726 ITNs distributed to children under one and 38,773 ITNs to pregnant women via routine health services from January to June 2020. This represents a 55 per cent increase over the 13,392 ITNs distributed to children under one year and 49 per cent increase over the 26,058 distributed to pregnant women in CAR in 2019 before COVID-19. An additional 127,975 ITNs were distributed to internally displaced persons and natural disaster survivors<sup>20</sup>. The NMCP increased focus on border areas with Cameroon including Bouar, Berberati and Gamboula to avoid risks of epidemics in these areas<sup>21</sup>. The NMCP is also distributing more than 916,000 ITNs in 2020 through a door-to-door mass campaign in health region one and five sub-prefectures of health region three<sup>22</sup>. Starting in 2021, as part of the new Global Fund application, the NMCP has planned to procure and distribute pyrethroid ITNs with the synergist piperonyl butoxide (PBO) to respond to documented insecticide resistance in five of the seven regions in CAR.

While the numbers above demonstrate significant progress in ITN distribution in CAR in 2020, it remains very difficult to achieve and maintain universal coverage throughout CAR. For example, although more pregnant women and children under one year received ITNs during routine services in 2020, the number of ITNs distributed still reaches less than 30 per cent of these vulnerable populations.

The NMCP and WVI worked with the national COVID-19 task force to harmonize malaria messages with national COVID-19 messaging. This included joint focus on messages to reassure and encourage the population to continue going to health facilities for routine consultations and treatment – across all health areas, including malaria. This approach helped in increasing awareness of COVID-19 testing availability and maintaining expected demand for malaria rapid diagnostic tests for suspected cases of malaria in health facilities.

To continue to increase and maintain ITN access and coverage in alignment with the National Malaria Strategic Plan, the NMCP has continuously sought initiatives to overcome challenges

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<sup>18</sup> République Centrafricaine Ministère de la Santé et de la Population (2017). Plan Stratégique National du Lutte contre le Paludisme 2018—2022 étendu à 2023.

<sup>19</sup> AMP (2020). Interview notes, discussion with CAR NMCP and World Vision International (WVI), 25 November 2020.

<sup>20</sup> World Vision International (WVI), Email from Byicaza, O, 2 December 2020.

<sup>21</sup> AMP (2020). Interview notes, discussion with CAR NMCP and World Vision International (WVI), 25 November 2020.

<sup>22</sup> AMP, Moyen J.M., (2020). CAR ITN Campaign Situation Report, 2 November 2020.

related to insufficient funding and limited ability for the government to contribute given competing priorities and, more recently, COVID-19.

With the Global Fund, the NMCP has developed a COVID-19 malaria commodity response plan to ensure sufficient stock levels across all malaria commodities in case of spikes in demand due to the evolving COVID-19 situation. Global ITN procurement and shipments continued uninterrupted to CAR in 2020, with an arrival of 500,000 ITNs in July. The NMCP estimates that current ITN stocks will be sufficient until June 2021 to cover routine distribution needs.

One of the most significant challenges in ensuring access to ITNs is the lack of specific funding to transport ITNs from the capital of the seven health regions to health facilities. As the current Global Fund grant in CAR is a programme continuation of the previous grant, it continues with the same design as the previous application, which does not include continuous distribution and the costs necessary to transport ITNs to health facilities for distribution during routine ANC and vaccination services. In the new Global Fund application in which funding is planned to start in 2021, the NMCP has included a budget to transport ITNs to health facilities, which should ensure a continuous supply of ITNs for the most vulnerable groups.

To overcome challenges posed by ITN transport, as well as the security and accessibility challenges noted above, the NMCP builds on a large and diverse network of humanitarian and health partners to ensure transport and availability of ITNs at health facilities, especially those in hard-to-reach areas. Table 1 provides a partial list of partners supporting ITN distribution in CAR.

*Table 1: Partners providing support for ITN distribution in CAR*

<b>Partner</b>	<b>ITN Distribution</b>
Central African Red Cross	In health regions one, two and three
Danish and Norwegian Refugee Councils	For displaced persons
International Organization on Migration	In the sub-prefecture of Kabo
The Mentor Initiative	In health region three
Ministry of Social Affairs	In the sub-prefecture of Yaloké
Médecins Sans Frontières	In the sub-prefectures of Bakassa, Bakouma, Batangafo, Bocaranga, Bossangoa, Bria, Carnot, Dekoa, Kabo, Markounda, Nana Boguila, and Ndélé
Plan International	In health region two
Rapid Response Mechanism	For the emergency zones in health regions four, five and six
World Vision International	As Global Fund Principal Recipient

The NMCP has also coordinated with Ministry of Health and Population regional and district health teams to send ITNs in vehicles being used for supervision visits or other work missions to health facilities. This system is strongest for the health facilities in or near to Bangui, but more problematic further away from the capital where malaria burden is higher and access to health facilities lower.

While the NMCP has successfully maintained continuous distribution in 2020, further improving the efficiency, reliability and effectiveness of the system will be a priority under the new Global Fund grant starting in 2021.