Maintaining the provision and use of services for maternal, newborn, child and adolescent health and older people during the COVID-19 pandemic

The Democratic Republic of the Congo: community-based distribution of DMPA-SC and self-injectable DMPA-SC

Background

The Democratic Republic of the Congo has high rates of maternal mortality, fertility and rapid population growth (1). To address these challenges, increasing access to and uptake of contraceptives have been priorities in recent years. In early 2014, the first National multisectoral strategic plan for family planning was adopted to increase modern contraceptive use from 6.5% in 2013 to at least 19.0% in 2020 (2). Community-based family planning and contraceptive services were identified as key components of strategies to facilitate increased uptake. By 2018, the modern contraceptive prevalence rate for married women reached 17.6% nationally (1).

The first case of COVID-19 was documented in the Democratic Republic of the Congo in early March 2020 (3). Shortly after, public health and social measures were enforced including stay-at-home orders, discouragement of the use of non-essential health services and the closing of schools and international borders (3-4). Some public and private health care providers were redeployed from their normally-assigned duties as part of the pandemic response (5). Health facility use declined as health workers fell ill, facilities reduced service offerings and were seen as potential points of COVID-19 transmission.

Experiences from previous epidemics and modelling studies at the beginning of the COVID-19 pandemic predicted that pandemic-related health service disruptions could have catastrophic effects on reproductive health services in sub-Saharan Africa, especially on the uptake and continued use of contraceptives (4,6-8). This was highly concerning for countries such as the Democratic Republic of the Congo, already challenged before the pandemic by limited availability of contraceptive services and relatively low rates of contraceptive use (9).

Despite this outlook, contraceptive services in the Democratic Republic of the Congo remained largely stable in the early days of the pandemic. A pulse survey conducted by the World Health Organization (WHO) reported that fewer than 5% of family planning and contraceptive services nationally were disrupted from May 2020-December 2021 (10).
In Kinshasa, where most COVID-19 cases were concentrated, contraceptive uptake was not affected in the period from May-July 2020 (4). From July 2020, pandemic-related supply chain disruptions caused an increase in stock-outs of modern contraceptives in health facilities (11). However, the number of clients accepting oral and injectable contraceptives in Kinshasa began an upward trend from mid-2020, an upward trend from mid-2020, though injectable contraceptives continued to be distributed at higher rates than oral contraceptives. There was an overall increase in oral and injectable contraceptive distribution from 2020 to 2021 (Figures 1 and 2).

Fig. 1. Distribution of Oral Contraceptives (units = pill packets distributed) in Kinshasa, 2020-2021 (11)

Fig.2. Distribution of Injectable Contraceptives (units = injections distributed) in Kinshasa, 2020-2021 (11)

Community-based distribution of injectable contraceptives: a strategy to increase contraceptive uptake

Before 2014, community-based family planning providers in the Democratic Republic of the Congo were only able to offer non-medical contraception, including traditional methods, male and female condoms and contraceptive pills, despite studies showing that Congolese women preferred injectable contraceptives (depot-medroxyprogesterone acetate [DMPA]) and contraceptive implants (12).

DMPA injections are available in two formulations: intramuscular and subcutaneous. DMPA-SC (or Sayana® Press) is easier to inject than intramuscular DMPA and therefore can be administered in the community by any trained individual including pharmacists, lay health workers or even users themselves (13).

In 2014, subcutaneous DMPA (DMPA-SC) was provisionally authorized by the Ministry of Health. In 2015, a pilot study in Kinshasa successfully trained medical and nursing students to provide family planning counselling and distribution at the community level under supervision, including administration of DMPA-SC (13-14). During the pilot, trained students distributed DMPA-SC during set campaign days held near health centres, through home visits to clients or from their own homes (1,13). In 2019, nursing students also began to pilot community-based training of clients to self-inject DMPA-SC (1).

Adapting DMPA-SC provision to maintain contraceptive services during the COVID-19 pandemic

During the COVID-19 pandemic, national policy actions worked in concert with community-based efforts to maintain access to DMPA-SC.

National context

In early 2020, national scale-up of community-based distribution of DMPA-SC was ongoing (15). With the onset of the pandemic and the anticipated negative effects of public health and social measures on the continuity of contraceptive services, the Ministry of Health accelerated several key actions, including provisional approval of self-injection of DMPA-SC to be offered at health facilities and by trained community health workers (CHWs) (15).

The Ministry of Health and its partners prioritized the training of trainers in the administration of DMPA-SC in the community and training clients on self-injection of DMPA-SC (15). Videos and online materials were used to reach providers outside Kinshasa, who went on to lead training for colleagues at lower levels of the health system (15).

By May 2020, with the finalization of the National reproductive, maternal, newborn, child and adolescent health and nutrition guidelines in the context of COVID-19, the full integration of DMPA-SC into the national contraceptive service landscape was complete and functioning. Policy actions included the revision of the 2020 version of the National list of essential medicines to include DMPA-SC and the Guide for the Implementation of community-based distribution to specifically integrate both DMPA-SC and self-injection of DMPA-SC. In March 2021, the Ministry of Health fully authorized the self-injection of DMPA-SC, and by the end of the year it was available in 47% of health zones nationwide (15).

A number of stakeholders contributed to the scale-up of DMPA-SC during the pandemic (see Table 1 for a summary).
Table 1. Stakeholders involved in the introduction and scale-up of self-injectable contraceptives in the Democratic Republic of the Congo during COVID-19

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Key actions</th>
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<tbody>
<tr>
<td>Midwives Association of the Democratic Republic of the Congo</td>
<td>• Training and supervision of trainers and students involved in community-based distribution of DMPA-SC&lt;br&gt;• Advocacy for recognition by the Ministry of Higher and University Education of bachelor degrees of nurses who completed midwifery training</td>
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<tr>
<td>Technical medical institutes</td>
<td>• Technical support on theoretical and practical training related to DMPA-SC&lt;br&gt;• Quality assurance of training&lt;br&gt;• Involvement of advanced students in community distribution, training and follow-up of DMPA-SC self-injection users</td>
</tr>
<tr>
<td>Ministry of Public Health</td>
<td>• Training and supervision of health workers at the Public Health Department in Kinshasa, health districts and in the community</td>
</tr>
<tr>
<td>Sexual, Reproductive, Maternal, Newborn, Child and Adolescent Health and Nutrition Platform</td>
<td>• Formulation of relevant directives to facilitate the adoption of COVID-19-adapted protocols</td>
</tr>
<tr>
<td>Provincial divisions of health</td>
<td>• Training and supervision of health workers at the district and community levels&lt;br&gt;• Technical support to operational structures to ensure successful implementation of community distribution of DMPA-SC</td>
</tr>
<tr>
<td>Health district executive teams</td>
<td>• Training, supervision and follow-up of health providers and CHWs for the effective implementation of self-injection of DMPA-SC at the community level during COVID-19</td>
</tr>
<tr>
<td>Health providers at health centres</td>
<td>• Training, supervision and follow-up of CHW activities&lt;br&gt;• Compilation and transmission of data to higher structures</td>
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<tr>
<td>CHWs</td>
<td>• Frontline implementers of activities in the community, including promotion of self-injection of DMPA-SC, provision of contraceptives (door-to-door), user follow-up and assurance of best practices</td>
</tr>
<tr>
<td>Implementing partners</td>
<td>• Technical and financial support for the implementation of priority actions, including cascade training on self-injection of DMPA-SC&lt;br&gt;• Advocacy to integrate DMPA-SC and self-injection of DMPA-SC into normative family planning documents at the national level and in the national health information system</td>
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* Project financed by the United States Agency for International Development.
Scaling-up community-based distribution of DMPA-SC in Kinshasa

Given the relatively high prevalence of COVID-19 in Kinshasa compared to other regions of the country, several DMPA-SC scale-up strategies during the pandemic were concentrated in the capital.

To facilitate scale-up of community-based distribution of DMPA-SC, self-injection of DMPA-SC and safe biowaste management in Kinshasa, capacity-building activities, including the training of more community-based providers, were intensified (15). These activities built on the already-existing infrastructure involving nursing students since 2015 and the pilot training of clients in self-injection by advanced nursing students since 2019 (1,14).

Training kits, training guides, reference manuals, provider checklists, posters, client instructions and calendars were all adapted to address the unique circumstances of the pandemic, including smaller group sizes for training and the integration of COVID-19 mitigation measures into implementation protocols. Government and civil society partners conducted post-training follow-up and supervision with new trainees, and contraceptive products including DMPA-SC were distributed to health facilities and community sites. Personal protective equipment to mitigate the spread of COVID-19 was supplied to CHWs, students and health care providers involved in community distribution.

Outcomes of scale-up of community-based distribution and self-injection of DMPA-SC during COVID-19

By the end of 2020, 473 of 519 health districts nationally offered DMPA-SC (16), increasing to 512 health districts by July 2021 (15). In 2020, 163 of the 300 medical schools targeted by the Ministry of Public Health had integrated community-based family planning training into their curricula for advanced nursing and midwifery students (16). The number of schools including self-injectable DMPA-SC in curricula remained at 22 from 2019 to 2020, mainly due to lack of financing and challenges engaging partners (16).

In 2020, almost 3000 health care providers, including clinicians, pharmacists, CHWs, advanced nursing students and community health supervisors, completed family planning training including administration of DMPA-SC (16). A total of 1117 clinical and non-clinical health workers were also trained (16).

Overall, both community- and health facility-based distribution of DMPA-SC in Kinshasa trended upwards from 2019-2021, although fluctuations occurred each year. While training for increased community distribution during COVID-19 in Kinshasa was largely successful, drops in distribution tended to coincide with pandemic-related events, such as supply chain ruptures and the closure of schools and universities, which affected the continuity of distribution by advanced nursing students (Figure 3).

Fig. 3. Trends in distribution of DMPA-SC by community-based distribution agents and health centres in Kinshasa by quarter, 2019-2021 (11)

Nationally, the total number of doses of DMPA-SC supplied increased from about 416 500 doses in 2017 to over 1.7 million in 2020 (16).

In Kinshasa, DMPA-SC was distributed at health centres and in the community via CHWs and advanced nursing students. Distribution increased every year from 2019-2021 (see Table 2). In 2021 community-based distribution surpassed distribution in health centres. Distribution continued to rise overall through the end of 2020 and throughout 2021.

Table 2. Total annual distribution of DMPA-SC doses from health centres and in the community, Kinshasa (2019-2021) (11)

<table>
<thead>
<tr>
<th>Distribution type</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
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</thead>
<tbody>
<tr>
<td>Health centre</td>
<td>17 251</td>
<td>33 135</td>
<td>49 468</td>
</tr>
<tr>
<td>Community-based</td>
<td>28 976</td>
<td>32 024</td>
<td>60 460</td>
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Challenges

- A fear of self-injection pushed some DMPA-SC clients to return to health centres to access contraceptive services.
- Inadequate financial and moral support for community distribution agents resulted in low motivation of some health workers. A sharp decrease in some community-based efforts was noted, with some activities stopping altogether.
- No central data repository existed for DMPA-SC activities, and reporting was inconsistent between distribution sites. Therefore, community and facility data were not disaggregated, and the absence of accurate estimates of demand for self-injectable DMPA-SC and a detailed distribution plan led to stock-outs.
- Delays in the release of funds, especially for the integration of family planning activities into pandemic response plans, caused delays in activity scale-up and implementation, including for the training of additional advanced nursing students on DMPA-SC.
- The national, government-sanctioned committee responsible for the coordination of family planning activities and partners suspended operations in 2020 through early 2021 resulting in a lack of coordination and regulation of intervention activities between the government and other partners; nongovernmental organizations were still supporting most DMPA-SC efforts in the community without necessarily coordinating with national or provincial government agencies or other partners.

Lessons learned

Reduced risk of transmission of COVID-19 at health facilities. Community-based distribution of DMPA-SC and self-injectable DMPA-SC allowed users to access contraceptives while reducing client traffic at health facilities.

Decreased workload for reduced health facility staff. Community-based distribution of DMPA-SC and self-injectable DMPA-SC resulted in fewer overall client visits, helping health care providers manage workload following the Minister of Health’s directive to reduce staff to only the essential number during the pandemic.

Reduced indirect costs to contraceptive users. With community-based distribution of DMPA-SC and self-injectable DMPA-SC, clients avoided transport and opportunity costs, such as travel and wait times at health facilities.

Implication of CHWs in community distribution and follow-up improves compliance. CHWs’ involvement in the education, distribution and follow-up of self-injectable DMPA-SC users helped increase compliance to correct and timely use, countering a trend of non-compliance at the beginning of project implementation.

Training of DMPA-SC clients to self-inject in the community

Credit: Pathfinder, DKT-RD Congo, Programme National de Santé de la Reproduction
**Moving forward**

National- and district-level government officials and nongovernmental partners believe that increasing access to self-injectable DMPA-SC should be a priority of the *National programme for reproductive health* and family planning partners to increase contraceptive access generally, and to maintain the continuity of contraceptive availability in the case of unanticipated disruptions to health services. Moving forward, efforts to increase coverage should be concentrated especially in areas which have not yet adopted a community-based approach.

Nationally, increased, timely funding from the government and its partners to ensure the sustainability of this approach to family planning is necessary. Improving the coordination and functionality of the DMPA-SC supply chain to health facilities will also be essential to ongoing, successful scale-up. Reviving and reinstating the government-sanctioned family planning coordination body would also help centralize coordination, decrease the replication of activities by different actors and improve supply chain functionality.

On the community level, re-invigorating community structures and actors, including CHWs, and the involvement of medical and nursing students in community-based activities should be prioritized. Providing consistent support, adequate incentives and motivation for community-based health care providers and distributors to continue community follow-up with DMPA-SC users, especially those who are self-injecting, could increase acceptance of and adherence to contraceptive use.

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*The views in this brief do not necessarily represent the decisions, policy or views of the World Health Organization.*

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**Acronyms**

<table>
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<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>CHW</td>
<td>community health worker</td>
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<tr>
<td>DMPA</td>
<td>depot-medroxyprogesterone acetate</td>
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<tr>
<td>DMPA-SC</td>
<td>sub-cutaneous formulation of depot-medroxyprogesterone acetate</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization</td>
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References


