The following are recommendations and best practices to consider when developing plans for safely restarting mass drug administration (MDA) campaigns in the context of COVID-19. This document is meant to supplement WHO’s guidance note entitled, Considerations for implementing mass treatment, active case-finding and population-based surveys for neglected tropical diseases in the context of the COVID-19 pandemic, released on 27 July, 2020. This document should only be used after a thorough COVID-19 risk-benefit assessment (including assessment of community acceptance and readiness) has been completed and the decision has been made to proceed with MDA. Considerations for a risk-benefit assessment can be found in the WHO guidance cited above.

These recommendations were designed for settings that are potentially at higher-risk of community transmission of COVID-19, with limited testing capacity and availability of reliable surveillance data. Countries experiencing these conditions may opt for a more conservative approach to resumption of MDA, as reflected in this document. In order to minimize potential risks in these settings, the recommendations were developed with two key principles in mind. First, that an absence of cases in a region or village does not necessarily indicate absence of risk of COVID-19 transmission. As such, mask wearing (as well as other appropriate Personal Protective Equipment [PPE] and proper hand hygiene) should be mandatory during all activities that involve person-to-person interactions.

Second, that the COVID-19-related risks associated with an MDA at a fixed location are greater for community members than MDA conducted house-to-house. House-to-house MDA is therefore prioritized in the considerations below. These recommendations are not meant to serve as a comprehensive standard operating procedure, but rather should supplement existing NTD/MDA SOPs so that they can be adapted for the local setting, both in terms of the NTDs being targeted and the COVID-19 situation. In particular, social mobilization strategies and communication messages will need to be crafted based on the context in which the MDA will take place.

**PLANNING**

NTD programs considering a resumption in MDA should recognize that additional planning of distribution activities will be required to adequately prepare drug distributors and communities for changes in the way that MDA is conducted. Community ownership and engagement - including involvement of the community in the planning and decision making process and tailoring approaches to the local context - will be key to ensuring that MDA activities can resume safely and effectively. As described below, special consideration should be given to the delivery of health messages and to provision of training for drug distributors and community health workers on skills that they will need to deliver MDA safely.

Conduct a COVID-19 risk-benefit assessment in relevant areas to determine if MDA should resume/commence.
- In addition to assessment of risk, planning teams should thoroughly assess community acceptance of (and readiness for) MDA activities in the COVID-19 context.
- Careful consideration should be given to stigma associated with community health workers or mask wearing to ensure the safety of CDDs during the MDA.

Local field teams in areas where MDA will take place should be consulted during the planning process so that operational realities are considered.

Efforts should be made to learn from other health campaigns that have already been restarted to determine what has/has not worked well and what can be adapted for MDA.

Information sharing and planning should be conducted remotely as much as possible to limit human contact.
- The use of available technology (e.g., mobile phones) should be optimized to enhance remote supervision by national or regional levels.

When possible, remote joint planning meetings with other health programs should be prioritized.

If in-person meetings are unavoidable, appropriate precautionary measures should be taken.

Use of masks during all MDA activities that involve person-to-person contact (including planning and training) is recommended. This will require additional planning and communication with local teams.

Extending MDA timelines should be considered to reduce time pressure on drug distributors.

Local health staff should be advised about the timing of MDA and informed about the potential for and nature of treatment related adverse events.

**SUPPLY CHAIN/DRUG DELIVERY**

Potential risks of virus transmission exist at each step of the supply chain. Appropriate attention to safe delivery of drugs is essential to prevent inadvertent introduction of the virus into areas without transmission.
Adequate inventory of drug stock and supplies is necessary to ensure that orders are made only once and to minimize the quantities of drugs that are returned after treatment. This will require accurate estimation of drug needs based on treatment targets established during planning at the district, health area and community level.

Drug packages transported to and from the field should be properly disinfected with WHO-approved cleaners upon arrival at storage facilities and before distribution in the field. The same process should take place during reverse logistics when drugs return from the field.

PPE (including masks and gloves) and hand sanitizers should be provided to those facilitating end to end transportation of drugs and use should be mandatory.

- Those transporting drugs and materials should adhere to physical distancing guidance at all stops along the journey and wear PPE when interacting with others.

Efforts should be made to reduce the number of people involved in transport of drugs and materials. Consider coordination with other health campaigns when possible.

Fliers and pamphlets, if being distributed before/during the MDA, should also be handled and stored in a manner consistent with infection prevention guidelines.

**TRAINING**

Teams of drug distributors will face new challenges in safely delivering MDA, including the need to wear masks and practice hand hygiene. These skills should be practiced in training, if possible. In addition, drug distributors should be prepared to deliver appropriate messages on COVID-19 and to respond to community fears that may be triggered by the pandemic. Development of appropriate training materials will require some time and effort.

**Training Planning and Venue**

- Trainings should be conducted locally in order to prevent travel between regions as much as possible. Trainers should be from the local areas to the extent possible to limit spread of the virus from other geographical zones.
  - If trainers from outside the local area are needed, COVID-19 screening should be conducted before they visit local teams.
  - Trainings that involve trainers from outside local areas should be limited to as few participants as possible. Those who have been trained can then train others locally.
- Training meetings should be conducted outdoors when possible. If a meeting is conducted indoors, it should be in a large, well-ventilated room.
- The numbers of participants in a meeting/training should be limited depending on the size of the venue so that safe distancing of at least 1 metre can be maintained at all times. This may require holding multiple training sessions with fewer participants.
- All participants and trainers should adhere to proper COVID-19 precautionary measures throughout the training including wearing masks, physical distancing and practicing hand hygiene prior to and following the training.
- All high touch surfaces and materials should be disinfected with WHO-approved cleaning materials prior to and following the training.
Training Participants

- Participants should not attend the training if they have had a fever or respiratory symptoms within the past week, or if they have had recent contact with a known COVID-19 case. If possible, participants’ temperature should be taken upon arrival at the training.
- Consideration should be given to age restriction of trainees (both health workers and volunteers) and trainees with pre-existing health conditions. A cut off age of 60 years should be adopted because of age-related vulnerability to COVID-19.
- CDDs with prior experience conducting MDA campaigns should be prioritized over new CDDs so that errors can be minimized since supervision by regional or national teams may be limited.

Training content

- In addition to all normal MDA training components, training content should capture infection prevention measures for COVID-19 during MDA and COVID-19 related knowledge and messaging to be shared with those receiving MDA.
- Trainings should be scheduled for longer periods of time than they would normally to account for the addition of COVID-19-related content.
- CDDs should be trained on proper donning/doffing of PPE including masks and gloves as well as proper hand hygiene techniques.
- Role play should be used to provide drug distributors with an opportunity to practice new physical distancing skills when delivering drugs at the household level.
- Training should include an increased emphasis on how to inform communities about drug-related adverse events to make sure that post-treatment side effects do not trigger concerns at the community level.
- Training content should be made available as both hard and soft copies when possible to facilitate access to information while in the field.

Community Sensitization and Mobilization

Development of appropriate messaging is critical to resuming MDA without creating confusion or concern among community members about the purpose of MDA. Messages should address COVID-19 prevention as well as the rationale for resuming MDA. Community members and leaders should be actively involved in this process to help craft messaging that is most appropriate and to preemptively address community concerns.

One-on-one discussions should be held with community leaders (conducted with appropriate COVID-19 precautionary measures) to inform them of the campaign and solicit input on ways to move forward with MDA plans. Large community meetings should not be held.

Letters should be sent to community-based organizations, religious bodies, and social groups to inform them of the campaign and to highlight the safety measures that will be implemented during the MDA.
As noted above, risk of virus transmission should be assumed. This will help set the stage for adoption of masks and physical distancing as drug distributors engage household residents.

**MDA Strategy**

- Door to door distribution is preferable to fixed post/fixed mobile distribution because the former can be managed more effectively with physical distancing.
- Drug administration should be done outdoors rather than indoors, to minimize transmission risk.
- Neighbors or other visitors should be requested to not enter the area where drugs are being distributed to an individual/family during MDA.
- People at higher risk of transmitting COVID-19, or at higher risk of developing severe illness from COVID-19, should preferably not participate in the MDA.

All MDA messaging (which should be delivered on diverse platforms) should systematically include education messages about both NTDs and COVID-19 in settings where this is deemed acceptable to the community.

- Messaging about MDA and COVID-19 should be carefully designed to take into account community anxieties, concerns, rumors and fears about COVID-19 and the potential for misinformation, reluctance and resistance among community members.
- Messaging should address concerns about side effects of medication (which may be similar to COVID-19 symptoms), as well as concerns that CDDs may be spreading COVID-19.
- Messaging should stress that MDA is not a COVID-19 intervention and clearly differentiate between COVID-19 and NTDs of interest. Emphasize that MDA has been conducted in the past and that the only change is conducting MDA in a safer way due to COVID-19 context.

Consider maintaining a team of mediators (made up of MDA program staff, district leaders and local social leaders) who may intervene on the behalf of CDDs if community resistance and threats of physical harm should arise.

The use of mass media and social media should be prioritized to reach a wider audience over a longer period of time (at least one week before and throughout the campaign).

Capitalize on proximity sensitization and mobilization through town criers and other community mobilizers - in addition to announcing the start of the MDA, criers will also share simple messages about COVID-19 prevention. Town criers should be included in pre-MDA training.

Open-air campaign launch events should be avoided to prevent formation of large crowds. Smaller events could be organized, recorded, and aired over different mass and social media platforms.

**DRUG ADMINISTRATION**

As noted above, risk of virus transmission should be assumed. This will help set the stage for adoption of masks and physical distancing as drug distributors engage household residents.
CDD Precautions

- If a community drug distributor (CDD) has had a fever or respiratory symptoms in the previous week, or develops any COVID-19 symptoms during the MDA, she must not take part in the distribution and should self-isolate at home until symptoms have resolved (or seek medical attention if necessary).
- CDDs who are identified as contacts of COVID-19 cases should not participate in the MDA.
- Consideration should be given to age restriction of CDDs, as well as those with pre-existing health conditions. A cut off age of 60 years for CDDs should be adopted because of age-related vulnerability to COVID-19.
- CDDs should be provided with supplies to distribute drugs safely, including hand sanitizer, gloves, and spoons or small plastic bags to dispense drugs.
- CDDs must maintain hand hygiene by washing their hands with soap and water, or using hand sanitizer before and after each household they visit.
- Masks should be worn by CDDs at all times. If a CDD must remove her mask to speak clearly, extra distance from household members should be maintained.

During house-to-house distribution

- CDDs should deliver messages on COVID-19 to the household members and explain the reasons for the protective measures, before measuring height or dispensing drugs. CDDs should answer questions first, treat second.
- Height measurement on dose poles should be carried out with physical distancing. The dose pole can be placed against a wall or held at arm’s-length by the CDD. The CDD should record the number of tablets required while observing physical distancing.
  
  If the dose pole is touched by a household member at any point, the CDD must wipe the dosing pole and their hands with hand sanitizer after finishing MDA at the household.

- The CDD must not touch the tablets by hand, but use a spoon to count them and transfer them onto a clean plate provided by the family; she should then step back while the person takes and swallows the tablets.
  - In a situation where both the household member and the CDD are wearing masks, the CDD may deposit the tablet directly into the hand of the household member using the spoon while both stand at arm’s-length, taking care not to contaminate the spoon by touching the recipient’s hand.
  - Household members should be encouraged to drink from different cups instead of using the same cup.

- If the CDD observes someone with COVID-19 symptoms, she should counsel that person in a discreet and respectful manner about what course of action they should take so as not to alarm family member or neighbors.
  
  Individuals should be encouraged to self-isolate at home until symptoms resolve unless symptoms are severe enough to require medical attention.

- It should be emphasized that COVID-19 symptoms are very similar to other common illnesses and that most people experience mild illness and are able to recover at home. It is important that CDDs balance the real and perceived risk of COVID-19 and consider the local COVID-19 epidemiological situation in the area when discussing this level of risk.
SUPERVISION AND MONITORING

Maintaining appropriate levels of supervision during the pandemic may be more challenging because of the shift in MDA venue and the absence of supervisors from the central level. Nonetheless, adequate supervision is an essential component of the safe delivery of drugs during MDA. Supervisors should be attentive to safety considerations throughout the MDA process.

- Mobile technology should be used when possible to facilitate supervision by local and national teams.
- If supervisors from outside the local area are needed, COVID-19 screening should be conducted before they visit local teams.
- Supervisors should wear masks and ensure community volunteers are properly wearing PPE during distribution.
- A checklist to assess adherence to safety measures and MDA SOPs should be provided to all supervisors.
- Supervisors must refer any CDD or member of the public showing symptoms of COVID-19 to the nearest health facility for examination.
- Given the unprecedented nature of MDA during a pandemic, consider integrating qualitative methods into a formal MDA evaluation, which may include in-person or phone-based interviews, rapid observation during MDA and/or a quantitative KAP study.

POST-MDA ACTIVITIES

After the MDA, it is important to collect coverage data and to ensure appropriate management of unused drug stocks, in addition to assessing best practices and lessons learned from the adapted MDA. In the pandemic context, this follow up plays an important role in ensuring that community concerns about the MDA have been identified and that misinformation or rumors are addressed.

- Post-MDA review meetings should be restricted to district teams only, with remote support from regional/national NTD teams. Meetings should be limited in size and observe physical distancing recommendations.
- All leftover drug containers should be properly disinfected prior to transport or storage.
- Lessons learned from the current campaign should be well documented for adoption during subsequent campaigns.
  - Feedback should also be solicited from MDA recipients and community leaders to assess impressions of the MDA.
  - Any community concerns or misinformation/rumors that are discovered should be quickly addressed in a manner that reaches the entire community.
- Any paper data collection forms or other supplies should be handled and shared using proper hygiene protocols.