
AN EVALUATION OF
**CLINICAL
MENTORING**

IN MSF'S NON-COMMUNICABLE DISEASE PROJECT
IN EMBU, KENYA

JULY 2020

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The author's views expressed in this publication do not necessarily reflect the views of Médecins sans Frontières, nor the Stockholm Evaluation Unit.

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ACRONYMS

CHVs	Community Health Volunteers
CM	Clinical Mentoring
CMES	Continued Medical Education Session
DM	Developmental Mentoring
FGDs	Focus Group Discussions
HCS	Health Centres
HICs	High Income Countries
HTN	Hypertension
LMICs	Low and Middle-Income Countries
MH	Mental Health
MoH	Ministry of Health
MSF	<i>Médecins Sans Frontières</i> (Doctors Without Borders)
NCDs	Non-Communicable Diseases
OCB	Operational Centre Brussels
SAMU	Southern Africa Medical Unit
TOT	Training of Trainers
V1	Visit 1. Data from evaluator's visit in August 2019
V2	Visit 2. Data from evaluator's visit in February 2020
WOG	Weekly Observation Grid

EXECUTIVE SUMMARY

INTRODUCTION

In March 2017, Médecins Sans Frontières' Operational Centre Brussels (MSF-OCB) in collaboration with the Division of Non-Communicable Diseases and the Embu County Ministry of Health (MoH), started in Embu County a project aimed at reducing mortality and morbidity linked to Non-Communicable Diseases (NCDs). This project includes a strong component on reinforcing the skills and competencies of the care providers, and of Clinical Mentoring (CM), has been chosen as the learning implementation strategy. The mentoring activities within this project are being implemented based on the current MSF mentoring framework (described in the MSF "Clinical Mentoring Program Guide").

The mentoring framework implemented by MSF in Embu has been designed mainly as a CM process. It focuses on developing MoH clinical staff - Nurses and Clinical Officers, as well as Community Health Volunteers (CHVs) – to better deal with patients with four NCDs – hypertension, diabetes mellitus, asthma and COPD, and epilepsy. The approach consists initially of two modules designed around the four main NCDs referred to above.

This report describes an evaluation of the mentoring component of the NCD project within Embu, Kenya. The evaluation intervention was designed to assess the appropriateness and effectiveness of the defined mentoring framework as a learning and teaching process within this context. This included addressing three main objectives:

- To assess the extent to which the approach used in Embu has been sufficiently adapted to the local context,
- To examine the extent to which the mentees' medical competences (knowledge, skills, and attitudes) have improved, and
- To explore how the mentoring component of the project is currently being implemented and to identify possible improvements/ amendments.

The data collection was undertaken in two visits to Embu, one in July/August in 2019 (hereinafter referred to as V1) and the second in February in 2020 (hereinafter referred to as V2). Both quantitative and qualitative data were collected from mentors, mentees, MoH officials, MSF staff and patients. The methods used were interviews, focus groups, direct observation, and analysis of objective assessments of mentees knowledge skills and attitudes. Purposive sampling was used to determine who would participate in the evaluation and data was collected until saturation was reached.

FINDINGS

In summary, it was determined that the Embu mentoring process was an effective learning and teaching strategy which has enabled new knowledge, skills, and attitudes to be developed by the mentees in relation to NCDs.

Mentoring within MSF was considered at four levels – theoretical, how mentoring is conceptualised within MSF, the design of mentoring within the Embu project, and the actual experience. Focusing on the actual experience, the mentoring approach in Embu was found to be largely adapted to the context within which it

is set. This was due to mentoring materials being adapted to core mentoring principles and to Embu field needs and constraints.

The CM proposed in the MSF CM Program Guide (published by Southern Africa Medical Unit, SAMU) seemed to correspond with how it is implemented in the field. However, some questions were asked as whether the relationships constructed between the mentoring participants were truly adult-to-adult. Whilst there was evidence of some mentoring skills and processes being used within the programme, it was not accurate to describe the intervention as being a mentoring scheme/programme *per se*. This was because what was being taught and learnt was being defined by the relevant protocols and guidelines for medical practice rather than by the mentees' own learning agendas.

Teaching of medical knowledge was conducted in largely didactic way where the participants' role in the learning was largely limited to receiving the inputs from the teacher. Within the mentoring sessions with patients, it was found that the mentee did take leadership of the session, there were differences between pairs in how or whether debriefs or pre-meetings took place. Hence, the evidence of conventional mentoring skills and behaviours being enacted in pairs was limited and varied. Suggestions for improvement were offered, including having a consistent and collective approach to feedback and education of mentees and using a wider range of teaching approaches.

The quantitative data collected showed that there had been clear improvements in medical competence of the mentees as assessed by the mentors, using pre-test and post-test scores and the weekly observational grid. The qualitative interview data also supported these findings. Suggestions were also made in the findings to ensure continuous professional development which included involving new NCDs and new facilities for the mentees and further support on teaching, mentoring and education for the mentors, to make them more effective helpers. Accreditation for mentees and mentors was also suggested so as improve the likelihood of the mentoring programme being sustained once MSF leaves. Key learning was also generated by recognising that the mentoring was reported to be having a broader impact than just on patients but also on mentee and mentor families or broader communities.

Positive enabling factors for the mentoring included a positive working relationship, early engagement with the mentors, a relatively stable social context and strong mentor performance. Main obstacles to the success of the mentoring were an associated administrative burden, staffing shortages and payment regimes within MoH.

The main achievements of the mentoring programmes were found to be measurable outputs in terms of mentee progression through the programme, improved mentee confidence, reported better management of patients, and improved patient education.

Areas for improvement were identified including better involvement of support staff, focus on career development, expanding the reach of mentees, addressing length and workload and more staff within facilities. In order to improve the implementation of the process, seven recommendations are made at the end of this report which are summarised further below in the section Recommendations.

CONCLUSIONS

In summary, the mentoring programme in Embu County is working well as an effective learning and teaching model. It appears to be adding to MoH capacity in level 2 and 3 facilities in terms of staff being able to deal

effectively with NCDs. This view is corroborated by the mentors, mentees, MSF staff and patients as well as MoH officials looking at its systemic impact. This view has also been supported by direct observation of mentoring sessions with patients and of teaching sessions as V2. It must be said, however, that these views and observations have not been corroborated by medical data, as this is out of the scope of this evaluation.

An initial concern was that the mentoring model being proposed was more Eurocentric and would need considerable adaptation in order to work in a sub-Saharan African context. However, there was little evidence to support this view from both visits conducted. This seems to be because those implementing the process were themselves Kenyan and fully embedded in the Embu context. Furthermore, because the MoH at Embu County level were involved in the project from the outset, there appears to have been little resistance to the idea or to the programme. Also, because the mentors had time to work on the materials and the process before implementation, there is evidence to suggest that the approach has been adapted to deal with the field constraints that the mentors and mentees face. That said, as has been argued above, the teaching approach used does seem to be routed in traditional pedagogical approaches that Kenyan national MSF staff might be used to receiving themselves. Hence, it can be argued that there were some differences between the model of mentoring espoused in the SAMU mentoring materials and the way in which the teaching materials were delivered. Nevertheless, there does seem to be evidence supporting some successful transfer of medical knowledge and skills.

That is not to suggest that the initial implementation was without its problems. A national strike of medical staff did not help with the implementation (although, ironically, may have helped in terms of giving more time to preparation!). Furthermore, the turnover of mentees in the first cycle due to either personal issues of ill health or being transferred to non-MSF facilities has meant that not as many mentees have been fully developed as would have been hoped. However, data collected from V2 suggest that key lessons have been learnt in terms of the implementation of the process within the new facilities.

One of the main questions posed in the evaluation was whether the mentoring programme was if the mentees' medical competence were enhanced as a result. The answer to this seems to be a clear yes based mainly on data from the first visit. Because V2 was conducted much earlier in the learning cycle, it is not possible yet to assess whether the same impact is happening using objective scores, because they are currently incomplete for this cycle. However, the qualitative data does seem to support a similar conclusion for the new facilities so far. However, what is slightly less clear is whether this outcome might have been achieved by simply offering teaching and observation sessions on mentees' practice. Hence, any ultimate conclusions drawn on the effectiveness of the mentoring programme needs to recognise what the alternative approaches might be and whether they would have achieved better or similar outcomes. Clearly, it is beyond the scope of this evaluation to conduct a comparative analysis of mentoring compared with other approaches.

A second important question was how the mentoring process was being implemented in Embu and whether this was enabling the process to be as effective as it might be. It is clear, as suggested above, that there have been some challenges regarding implementation earlier in the programme's history. However, it is also clear that some lessons have been learnt in terms of how best to implement mentoring in new facilities. Two key factors seem to be *preparation* and *involvement*. The extensive preparation of the teaching materials and how the mentees' progress needs to be assessed seems to be critical. The Embu team seem to have recognised that it is important that the knowledge and process of teaching needs to be thought through and adapted to recognise the context that many of the MoH staff face when learning new material, e.g. competing priorities in terms of different patients, volume of work, impact of working nights on ability to learn, and have adapted their processes accordingly. Between V1 and V2, it is clear that further thinking and action has been undertaken to try and address some of the challenges and learn from the programme's initial cycle in terms of addressing volume of work and further refining the programme to fit better with its context. Secondly, it is also clear that, when all stakeholders are involved in the process, the operationalisation runs more smoothly.

However, what has yet to be fully addressed is how to move the embedment of this learning process forward and ensure that it is sustainable if or when MSF leaves the County. Whilst MoH officials have confirmed that they will put the appropriate measures in place should this happen, it is important to consider how the mentoring process itself might be sustained and its reach improved. Many of the mentees, in both visits in particular talked about how they were noticing a wider impact of their new knowledge, skills and attitude, not just (although primarily) with their patients but with their colleagues and with the broader community. Although this is clearly part of the CHV mentees' roles, the clinical mentees did not seem to have previously recognised their potential impact in this way. Some steps have already been taken in order to do this by involving more people in each facility and the creation of Training of Trainers (ToT) interventions. However, it seems reasonable to suggest that, going forwards, mentors and mentees might need further development to understand how they can strengthen this broader reach.

Firstly, it's important to give mentors some additional tools and processes so that they can affect more staff in the facilities. While several mentors reported how non-mentee staff are now invited to teaching sessions, it seemed that the principal mechanism for developing skills and attitudes was in patient consultations and in one-to-one sessions following those patient consultations. Hence, non-mentee MoH staff did not get the benefit of hearing how mentees applied their knowledge to actual patient cases. Furthermore, in the teaching sessions there was relatively little, if any, evidence of participants bringing their own experience into those sessions. Hence, it was suggested in the interim report that, by running Action Learning Sets¹ with 6-8 people, mentors could encourage greater applied group learning around application of medical knowledge and encourage participants to learn from each other as they collectively examine group cases. When this was originally suggested, again some concern was raised as to how this might be enacted and whether there would be sufficient time in the mentoring process to enable this sort of interaction and whether it would get in the way of transmitting the new knowledge. However, most of the clinical mentors in their one-to-one interview saw the merit of seeking to incorporate this into the teaching methodology. Despite that there is some evidence of this already happening with CHV mentees, this could be formalised and given as an offer to facilities. Sets could be made up of mentees and non-mentees which would expand the reach of the applied learning and insights gained.

In addition, mentees could be encouraged to via their mentors acting as role models, with patients, to educate the patients as to how to better take of themselves via lifestyle changes etc. Again, this is part of the CHV role but might be done within patient consultations using mentoring skills and questioning or listening techniques drawn from CM models. For example, mentees might be encouraged to say to patients "What will you do next to get yourself better?" hence communicating some measure of responsibility to the patients. At present, the impression given from the mentors and mentees is that all of the health care professionals are operating in an 'expert' role which can perpetuate a dependency relationship between patient and health care professional where the latter is expected to 'fix' the patient by dispensing drugs. This was certainly confirmed in the observations of clinical mentoring sessions where, at the beginning of the sessions, some patients did not seem to be completely clear why they were there and what their medical condition was. However, there was also some evidence in those sessions of the mentees seeking to educate their patients in terms of their own conditions and seeking to increase the patients' ownership of themselves in terms of their lifestyle choices. Similarly, in the patient focus group V2, there was evidence of increasing patient awareness of their conditions and their ownership of them. In the current system, patients are used to seeing the mentees – their health care professionals within the facilities – as being the experts who tell them what to do and who make decisions about their care going forward. Patients are not used to playing a more active role in their diagnosis and treatment. In a similar way, mentees are used to a way of operating with their patients and a particular way

¹ An Action Learning set is a group of colleagues/peers who choose to work together, often with a facilitator, to reflect on actions they have taken or are going to take. Each individual in the group is given a slot within which each person is helped by the group to work on their issue. All group members are invited to reflect on what learning comes out for them from each of the sessions.

of learning new knowledge. At their core, mentoring relationships work best when relationship between the pair is adult-to-adult, as described in the MSF Clinical Mentoring Program Guide.

Finally, while there has clearly been some development in the medical competence of the mentees, there was little evidence that the mentees, in the spirit of both Developmental Mentoring (DM) and Clinical Mentoring (CM), have been encouraged to take responsibility for thinking how their own careers might develop and what they themselves might do to develop them. When debriefs were observed in V2 following the mentoring sessions, they were very much focused on the medical aspects and seem to be driven by the mentor summarising the issues or learning from the session. They were also quite brief in nature. This is perhaps because the focus and purpose of the scheme in terms of competence development has been very clearly communicated by the scheme organisers. However, in terms of sustainability of a learning and development ethos within the facilities, it would help if the mentors were encouraged to set some time aside during the mentoring process to pay attention to the mentees developments and highlighting to the mentee their responsibilities in that. This could be done simply by asking mentees what they had learnt from the preceding session(s) and how they would do things differently with future patients.

These conclusions then lead to the following recommendations.

RECOMMENDATIONS

As a result of the interim findings and conclusions from V1, five interim recommendations were put forward to the programme team for consideration. These are re-examined here, and additional recommendations and comments are also offered.

⇒ **Recommendation 1: Train and develop mentors in teaching skills to help diffuse knowledge more widely.**

It is recommended that mentors are developed in their ability to teach professional adults by drawing on the experiences of group members within the teaching sessions. In practice, this would mean delivering the new knowledge in a different way by having an input as is currently done but then giving each participant a slot where they reflect on a previous patient they have had. Each participant might then learn about NCDs by working through that case, with support from the mentors and from the group. This in turn would encourage mentees to be more involved and engaged with the teaching sessions and maximise the chances of being able to apply these with clients.

(The original interim recommendation was that mentors should be developed to run action learning sets which would enable them to work with a group of 6-8 people and encouraging them to share experiences and challenges that they have with NCD patients. However, following the changes made to those who are included in the teaching sessions, this recommendation has been refined.)

Recommendations 2-4(of 7) →

⇒ **Recommendation 2: Encourage mentors to give mentees more responsibility for their own learning and development.**

It is recommended that mentors make a point of asking DM questions in their existing mentoring conversations e.g. 'What will you do differently in the future?'; 'What actions will you take to develop your understanding of 'x' further?'. By regularly creating a small amount of space within the existing mentoring relationship for longer term learning, mentors could encourage mentees to take more ownership of their own learning and development as opposed to relying on MSF or MoH to do this thinking for them. This might be supported by engaging in regular review of the approaches and methods used in the programme, which involves all stakeholders and participants - as a result, more ownership and responsibility for the learning process might be developed.

(The original interim recommendation placed the emphasis on the mentee's long-term career development. However, this seemed to raise some concerns within MSF in terms of unduly raising expectations about MoH support as well as where the space for this would come. Hence, this recommendation has been refined.)

⇒ **Recommendation 3: Continue to involve the wider MSF team and broader support functions in facilities in the mentoring programme.**

By continuing to recognise the importance and role that the wider MSF team and broader support functions play, it could be possible to identify bottlenecks or synergies in the delivery pattern so that challenges, e.g. shortage of available drugs or staff might be anticipated. This could be done by involving key representatives of these functions in mentor team meetings and involving broader services, e.g. pharmacy in the mentoring programme itself.

(This recommendation was in the interim report. It was clear at V2 that this recommendation was already being acted on, hence the suggestion here is to continue that work.)

⇒ **Recommendation 4: Provide support to mentees so that they can share their new skills and knowledge more widely in the facilities.**

By offering some support to mentees in terms of either (a) becoming mentors themselves (within their facilities rather than through MSF) or (b) becoming more effective disseminators of medical knowledge, through a ToT approach, it may be possible to embed the knowledge more deeply and widely within the facilities. This could be an additional offer to mentees as part of their development and included in the application process to be mentored.

(This recommendation was in the interim report and still stands in this final report.)

⇒ **Recommendation 5: Create “NCD Champions” within facilities.**

It is suggested that MSF work with MoH management staff in each facility to create a role of *NCD Champion*. This person would be responsible for encouraging the dissemination of new knowledge about NCDs as well as disseminating new knowledge or updates to protocols about the relevant NCDs. This need not be a new formal post but rather a designated role that an existing mentee might be able to take on. The purpose of this role would be to create a focal point within each facility for MoH to disseminate information to and provide a connection within each facility for NCD coordinators within MoH. This would have the dual effect of complementing the embedment of the new knowledge from the mentoring process within each facility and increase understanding of NCDs independently of the mentoring process.

(This recommendation was added after V2 and is linked to, but separated from, Recommendation 4.)

⇒ **Recommendation 6: Explore the possibility of accreditation for mentors and mentees at divisional/national level.**

Having formal recognition of the mentoring programme by NCD functions at national level would help embed the programme within MoH facilities and enable mentors and mentees to gain some credibility and transferability of their skills and knowledge to other facilities, and even other counties. It is important to consider what is being accredited, i.e. new medical knowledge and/or mentoring skills, as well as who or what might be accredited, i.e. mentors, mentees, and/or facilities.

(This recommendation was added after V2.)

⇒ **Recommendation 7: Encourage mentees to work with patients in a mentoring way.**

One of the key parts of the skill sets in the mentoring programme is *attitude*. This refers to the relationship that mentees create with their patients. It is recommended that the mentor as they work with the mentee, try to use that relationship as a resource for demonstrating how mentees should operate with their NCD patients. In their feedback to mentees, mentors could encourage mentees to notice the parallel between how their mentor treats them when trying to learn about the NCDs and how they might seek to educate and develop the patients in their conditions. This would have the impact of empowering both the mentees and the patients as learners. This could be included in the Embu mentoring materials and built into the existing programme.

(This recommendation was in the interim report and still stands in this final report.)

INTRODUCTION

PROJECT BACKGROUND

In March 2017, Médecins Sans Frontières' Operational Centre Brussels (MSF-OCB), in collaboration with the Division of Non-Communicable Diseases and the Embu county Ministry of Health (MoH), started in Embu county a project aimed at reducing mortality and morbidity linked to Non-Communicable Diseases (NCDs). This project includes a strong component on reinforcing the skills and competencies of the care providers and CM has been chosen as the learning implementation strategy. The mentoring activities within this project are being implemented based on the current MSF mentoring framework (described in the MSF "Clinical Mentoring Program Guide").

The mentoring framework implemented by MSF in Embu has been designed mainly as a CM process. It focuses on developing MoH clinical staff - nurses and clinical officers, as well as community health volunteers (CHVs) - to better deal with patients with four NCDs - Hypertension, Diabetes mellitus, Asthma and Epilepsy. The approach consists initially of two modules designed around the four main NCDs referred to above. The curriculum includes basic evidence-based management of these four diseases and their most common complications. These modules were originally meant to be covered over a period of approximately 24 weeks. Each week is framed around both a classroom training session targeting all clinical staff in the clinic, and on the job mentoring sessions targeting selected mentees per cohort. In the latter, mentors are present in some consultations with patients and advise and support the mentee where appropriate. It includes clinical officers, nurses and CHVs working in a group of pre-selected health facilities. After completing the two modules of mentoring activities in a first group of facilities, the same approach will be replicated in new facilities.

Considering that, this framework has never been evaluated in a clinical setting within any MSF field project, an evaluation was commissioned to explore the implementation process and its outputs as the project develops. The evaluation assesses the appropriateness and effectiveness of the defined mentoring framework as a learning and teaching process within this context. The methodologies used are semi-structured interviews, focus groups, direct observation, and document review, including analysis of secondary data. The secondary data is quantitative in nature and is principally made of mentor evaluations of mentee performance using a numerical scoring system and pre-test and post-test scores completed by the mentees. The population included are participants in the mentoring programme (mentors and mentees), patients who have received care from the mentees, and MoH managers and MSF staff who have a strategic overview of the programme.

EVALUATION SCOPE

The overall objective of this evaluation is to assess the appropriateness and effectiveness of CM as a mechanism for developing the medical competence of health care staff within the Embu county.

To achieve the overall objective, several specific objectives were set for the evaluation. These were:

- To assess the extent to which the CM approach used in Embu has been sufficiently adapted to the context;
- To examine the extent to which the mentees' medical competences (knowledge, skills, and attitudes) have improved; and
- To explore how the mentoring component of the project is currently being implemented and to identify possible improvements or amendments.

The evaluation had three main purposes as a result. These were to guide operational and technical adaptations (if necessary) on the ongoing implementation of the mentoring component in Embu Project, as well to define any required adaptations to the mentoring framework. In addition, the findings were to be used to inform any decision about scaling up/implementing a similar intervention elsewhere.

METHODOLOGY

The focus of the evaluation was to assess the appropriateness and effectiveness of CM as part of the NCD project at Embu. Appropriateness here is defined as the extent to which the clinical mentoring approach used in Embu has been sufficiently adapted to the local context. Effectiveness is defined as the extent to which the mentees' medical competences (knowledge, skills, and attitudes) have improved.

The evaluation design is a mixed methods design; partly qualitative as the evaluation objectives require an exploratory approach to understand and document perspectives on the appropriateness and effectiveness, and partly quantitative using secondary data (routinely collected in the project) of mentees scores to assess any improvements in their medical competence.

The methods used for collection of qualitative data were semi-structured interviews, participant observation and focus group discussions. Quantitative data were based on objective measures of medical competence in terms of the mentees' knowledge, skills, and attitudes. These measures were based on the quantitative data routinely collected by the project. They include scores of pre- and post-development tests completed by the mentees for each of the clinical areas covered by the mentoring program. In addition, scores are collected weekly by the mentors, regarding the knowledge, attitude, and skills proven by each of the mentees during the clinical sessions with the patients.

A methodological triangulation of findings has been undertaken to enhance the interpretation of data where the individual interviews will be combined with focus group discussion, participant observation, document reviews and secondary data from the mentee monitoring process. Triangulation enables a plausible representation of the appropriateness and effectiveness of CM through use of multiple methods or perspectives for data collection.

There were two field visits made; one in August 2019 (hereinafter referred to as V1) and another in February 2020 (hereinafter referred to as V2). During the first visit V1, data was collected from mentors, staff and patients in the first group of facilities (seven MoH health care centres) where the mentoring was implemented: Gategi, Kanja, Kairuri, Kabuguri, Kiambere, Machanga and Kiritiri. Prior to the first field visit, quantitative data had already been collected in the form of routine monitoring data on mentee performance as described above. This data was not collected as part of the first field visit. As part of the first visit, the evaluator conducted 17 mentee interviews, nine mentor interviews, three interviews with MSF staff, three interviews with MoH County officials (including one joint interview) and three focus group discussions (patients, MSF support staff and mentors). In the first visit, it was not possible to observe any teaching sessions, direct observation of mentoring sessions or patient consultations (including the mentor) on this visit for logistical reasons. This was because V1 occurred after the end of the teaching modules in the first health facilities. The purpose of the first visit was to evaluate the effectiveness and appropriateness of the project following the first iteration of the mentoring programme. As a result, some recommendations were made – summarised in this final report – to MSF staff in the field in terms of improving the project.

The second visit V2 was used to collect additional data (as per project evolution) and to assess the implementation of the suggested recommendations. Five facilities were visited as part of the second visit - Kanja (visited in first visit), Muchagori, Kigumo, Karau and Kibugu. As part of this second field visit, the evaluator conducted 10 mentee interviews, 10 mentor interviews, one interview with MSF staff, one interview with MoH County staff, two focus groups (patient and mentors). In addition, six teaching session observations and eight direct observation of mentoring sessions with patients were conducted. As a result, V2 was a directly observed evaluation of the mentoring process in action, following modifications after V1.

Ethical approval for the evaluation was obtained from three sources: MSF itself, the Kenya Medical Research Institute (KEMRI) and Sheffield Hallam University's own ethical review process. All evaluation participants (see annex) were given an information sheet, detailing the evaluation process and were invited to sign a consent form, confirming that they understood what the evaluation was about, what would happen to their data and what rights they had in relation to that data. This included agreeing to the audio recording of all interviews, focus groups, teaching observations and mentoring observations. In the case of the mentees, they were also invited to give permission for the evaluation team to have access to their pre- and post-test and weekly observational grid scores.

LIMITATIONS

Much of the data collected for these visits has been collected from mentees, mentors, MSF staff and MoH staff, all of whom can be argued to have some vested interest in the Embu project and getting positive outcomes from the mentoring process. Hence, this must be accounted for in interpreting the findings. Partly, the patient focus groups do seek to do this by examining the end outcomes as they experience them.

In addition, the MSF project staff were critical in the setting up of the interviews and focus groups. Indeed, it would not have been feasible to collect that data without this support. However, it is possible that they may have wanted, even unconsciously for those who were most positive to be interviewed as part of the evaluation. In order to account for this unconscious bias, the evaluation team chose the mentees to be interviewed and set the criteria for the other interviews and FGDs.

As acknowledged above, it was not possible, for practical reasons, on the first visit to directly observe any mentoring sessions, which means that the extent to which it is possible to fully triangulate the data from the first visit in this report is limited. Nevertheless, observations of both teaching and mentoring sessions were conducted in the second visit which has enabled some triangulation across the two data sets.

In addition, it has been necessary in some cases, i.e. with some mentee interviews, the mentoring observations and the Patients FGDs to use the services of a translator, who speaks English, Swahili and Kiembu. Every effort was made to build an effective working relationship with the translator. However, it is possible that some of the meaning and intent on the part of interviewees and the evaluator may have adapted or influenced by translator in her attempts to make an effective translation. In mitigation, however, many of those who did require the translation had some command of English so were able to hear the translations and original questions from the evaluator and were then able to moderate or confirm their answers.

Furthermore, it is important to acknowledge that the two data sets from the visits were conducted at different stages of the delivery cycles. The first visit, conducted in August 2019, was conducted following the completion of a mentoring cycle across the four NCDs. The second visit, in February 2020, however, was conducted in predominantly new facilities, where the mentees were only four weeks, on average, into their first module on

hypertension or diabetes. This therefore makes cross-comparison between visits more difficult and limits the extent to which it was possible to evaluate the implementation of changes made to the programme following completion of the first cycle.

FINDINGS

This section of the report has been organised specifically to answer the evaluation questions raised as part of the Inception Report process. Hence, the main evaluation criteria are cited in bold and capitalised and then each of the evaluation questions are listed as subheadings (bold and uncapitalized).

Each of the key findings are summarised under each of these headings, with supporting evidence from interviews, direct observations, FDG data, document review and, where appropriate, relevant literature. Interviewees will be quoted from time to time. Mentors and mentees will not be named but will be denoted by cadre: N=Nurse, CHV=Community Health Volunteer, CO=Clinical Officer. Similarly, Ministry of Health County staff and MSF staff quotes will also be appropriately anonymised.

As this report will contain quotations and observations from both visits, each one will also be denoted by a V1 for data taken from the August 2019 visit and V2 for data from the February 2020 visit. Following the presentation of findings, additional issues raised by the MSF evaluation consultation group will be examined.

MENTORING WITHIN MSF

To help navigate and interpret the findings in this report, it is helpful to establish an understanding of mentoring. Firstly, it is important to recognise that mentoring will be examined at four different levels in relation to this evaluation.

At the highest level, existing theories about mentoring will be used to inform analysis and recommendations. For example, a common definition of mentoring² is "off-line help from one person to another in making significant transitions in knowledge, work, or thinking.". This definition emphasises the important role that mentoring can play in helping individuals to acquire new knowledge and skills that can be used in the workplace. It also draws attention to the fact that mentoring is not usually conducted between people who are in a line management relationship with each other.

At the second level are the ways in which mentoring is thought about and enacted within MSF. It appears that there are two distinct strands, within MSF itself, as to what constitutes mentoring and how it is or might be used within the Embu Project context. The first strand is particularly pertinent to those who operate in non-clinical or Learning and Development roles within MSF. For these people, mentoring is a social process which is non-hierarchical and based on helping the mentee to take ownership of their own development and learning and, ultimately, to become self-reliant. In this process, significant attempts are made to be non-directive and to strip out notions of judgement and assessment and to establish an adult-to-adult, peer relationship, which enables the mentee to use the mentor as a facilitator for their own development journey that they are in charge of. The aim in this strand is to not to teach people things or monitor progress but to offer a process by which the mentee might gain psycho-social support and/or career progression. In this sense, this closely resembles mentoring processes as understood in other sectors such as private sector business, charities or social enterprises, and local government. This is Developmental Mentoring (DM). The second strand of mentoring that exists within MSF shall be called Clinical Mentoring (CM) here. In this approach, mentoring is seen as a more directive, hands-on tool for ensuring that appropriate, expected learning and development has taken place. Here, the concept of mentoring is seen as more about assuring that an effective transfer of

² Clutterbuck, D. and Megginson, D. (1999) "Mentoring Executives and Directors", Oxford: Butterworth-Heinemann.

knowledge, skills, and attitudes from mentor to mentee has happened and that the mentee is now more competent than before the mentoring in terms of performing core tasks and processes, as assessed by the mentor. Teaching, role modelling, and correction of inappropriate interventions (by the mentee) are seen as legitimate activities within this approach. It is also seen as the efficacy of the approach and its outcomes can be effectively measured by objective measures against key competency criteria. The mentor has much more of a role in determining the learning agenda of the mentee and is clearly designated as the expert within this context. This approach seems to be more prevalent amongst clinical staff and is more closely associated with approaches in other health care contexts and some parts of education (e.g. mentoring in schools & colleges).

At the third level, there is the approach to mentoring that was designed to take place within the Embu project as defined by the project materials and by the recollections of those involved in the design stage of the Embu mentoring project.

Finally, at the fourth level, is the actual experience of the Embu mentoring project as delivered in the field. Clearly, this is a key focus for this evaluation report and will be evidenced by quantitative data – such as pre- and post-test of medical knowledge and weekly observational grids – and qualitative data – interview data and FGDs with MSF staff, MoH staff, mentoring participants and patients.

Where possible and appropriate, answers to evaluation questions will be viewed through each of these lenses.

ADAPTATION OF MENTORING APPROACH TO THE CONTEXT

The mentoring approach in Embu is largely adapted to the context within which it is set. Data from MoH interviews, FGDs and individual interviews with mentors and mentees support the argument that those responsible for taking the outline design offered by MSF SAMU and developing it for Embu's context has succeeded. Nevertheless, some areas for improvement are identified; teaching sessions should be more interactive and less teacher-led and that mentoring principles should be embedded into the teaching materials for each module.

Is this model (Eurocentric and based on mentoring principles developed in a European learning context) culturally adapted to the Embu Context?

A key concern expressed by MSF when commissioning the evaluation of the mentoring project within Embu was whether a westernised, Eurocentric model of learning was, potentially, imposed on the mentoring participants within the Embu context. The importance of cultural adaptation in mentoring is recognised within the mentoring and coaching literature³, particularly in relation to cross-cultural working, where different assumptions made about the nature of management authority, working collectively versus individually and different views about what it means to be timely in work, can make for significant misunderstandings. Usually, this is related to the content of the mentoring. However, when this evaluation was commissioned, it was recognised that western mentoring models, with their emphasis on non-directive egalitarian approaches to learning and development, may be unrealistic.

³ Rosinski, P. (2003) 'Coaching Across Cultures: New Tools for Leveraging National, Corporate and Professional Differences', London: Nicholas Brearley.

In the same vein, the MSF programme guide, clearly states that the principals embedded in the model were designed to allow contextualisation and adaptation to specific contexts: *"This guide is meant to help Coordination/Project teams in implementing new or framing existing mentoring activities. It should really be taken as an outline, and not as a protected piece not to be altered. It formalises what many have experimented with"*.

All FGD and interview participants in both visits (excluding patients, for the purpose of this element) were asked to comment on how well the mentoring model worked within their context. Whilst there were some practical suggestions for improvement of materials and observations about teaching method (see below), the main thrust of the data supported the view that the model was culturally fit for purpose.

There was clear evidence that the mentoring model of CM, as defined by the MSF Mentoring Program Guide, is adapted to the Embu Context. This is evidenced by the fact that all mentees interviewed reported that the mentoring process felt appropriate to them and the context they faced in their various professional environments. This was the case for all mentees in V1 and V2, however, all of the mentees in V2 were noticeably more positive about the intervention and the extent to which there was a good cultural fit with their context. Similarly, all mentors (V1) felt that the mentoring process had been adapted to the Embu context. In addition, at V2, all mentors felt that they had been able to address some of the limitations in the first cycle (this will be discussed more in the Recommendations section of this report). Furthermore, all mentors described, in both the focus group and their individual interviews how they had been involved in the development of the mentoring model in terms of how it was enacted in Embu at both V1 and V2.

Arguably, the mentoring process in Embu was designed as a CM process not a DM process as defined above, which meant that it was already a good fit with the professional cultural context in relation to the facilities.

Much of the qualitative data supports the view that some adaptation took place, particularly in relation to preparing what would be taught and learnt by the mentees. All of mentors on the Embu programme found the model and the way it was presented to be useful. As Mentor 9 (V1) pointed out, there was *"lots of very useful information. The content/processes of the programme were well planned and prepared mentors well for their role"*. Mentor 7 (V1) also agreed with Mentor 9 (V1) in relation to the content: *"Teaching is clear, simple, well planned and shows how to start and how to get the mentees to listen"*. At V2, all the mentors felt that the mentoring process had worked well within this context. Mentor 7 (V2) was sure that *"the mentees are transferring what have learned into practice"*. She rarely gets calls regarding delivery, challenges, or patient education, meaning that the mentorship programme is working and the mentees can cope with demands of roles. In fact, she often gets positive testimonies from patients about particular mentees.

All mentees (both V1 and V2) were able to point to differences in the way they were invited to learn as part of the mentoring process as distinct from their previous learning experiences. Many attributed the differences to the one-to-one nature of the clinical sessions and debriefs but all felt that the model of learning was effective for them in terms of what they were able to achieve as a result. Interestingly, in the V1 patient FGD, several of the patients referred to how the mentees worked with them in the clinical sessions to help them better understand their conditions and how to deal with them. This seems to triangulate, to some extent, with the interview data in terms of a parallel process between mentors and mentees, and mentees and patients. There was also some support for this in observations of clinical mentoring sessions with patients in V2. In other words, the ways in which some of the patients described their relationships with the mentees seemed to mirror the way that the mentees (and their mentors) described their relationships with their mentors. These relationships, and the implications for how they might be used, will be examined further in subsequent sections.

How are mentoring tools/learning materials adapted both to mentoring principles and to Embu field needs and field constraints?

All mentors (V1 and V2) felt that they had played a major role in engaging with the mentoring model by refining and developing the mentoring materials and medical knowledge to be taught so that it was fit for purpose. The tools used by the mentors to work with the mentees had been adapted by the mentors, as defined by the preparation phase within the original mentoring briefing PowerPoint presentation⁴. The mentoring tools and learning materials were also adapted in length in response to early experience of delivering them. Most of the mentors commented on how they had adapted the timing and length of the sessions to maximise mentee concentration and motivation. For example, several of the mentors referred to running teaching sessions in the morning to maximise alertness and concentration levels.

Some mentors (V1) also talked about the importance of continually refining the materials in relation to new learning and new protocols that were being developed so that the medical knowledge remained current. The refining and updating of materials did seem to be happening, based on data from the V1 mentor focus group.

An analysis of the written materials given to those who attended the teaching sessions (V2) reveals that the focus of these materials is very much on the medical knowledge and content of what is being taught. They have clearly been designed to address what many of the mentors referred to as a clear knowledge gap on the part of those in the clinic about NCDs. In the case of diabetes and hypertension, clear information is given in the handouts to participants to enable them to follow the correct medical process of decision making and diagnosis. What was not clear from this analysis was how mentoring principles were embedded in these teaching materials. The handouts presented to the groups in the teaching sessions say nothing about the mentoring process or stipulate how the information represented in them should be engaged with. This is distinct from the Embu Project Materials given out at the beginning of the mentoring process inviting mentees and mentors to reflect on their respective journeys. There was no evidence or mention of these project materials by any of the interviewees in V2.

This is an example of what will be argued later in this final report; the mentoring process in this programme is used as shorthand for the process of teaching, assessment, and practice. When comparing these activities with models of DM, it is not immediately clear where any mentoring, in those terms, is taking place. The extent to which the process used in Embu is in fact CM or DM is one that will be debated further later in this report.

To what extent does the clinical mentoring that is proposed (i.e. working in a real clinical context) correspond with the model of mentoring that is proposed in the mentoring materials?

The CM that was proposed in the mentoring briefings seems largely to correspond with how it is implemented in the real clinical context, i.e. recruitment and initiation, teaching, discussion after patient consultation, and evaluation. Based on what all mentees and mentors reported, the mentoring process that they had experienced in Embu as part of V1 had several distinct stages. In terms of comparing these stages with the principles of MSF mentoring as defined in the MSF Mentoring Programme Framework, it was clear that the model used in Embu does correspond to those principles closely in terms of structure. That said, there are still some questions that can be asked as to whether the relationships constructed between mentors and mentees are truly adult-to-adult as stated in the MSF mentoring materials (MSF Clinical Mentoring Program Guide). This will be explored through the various facets and stages below.

⁴ SAMU Mentoring Briefing presentation, 2017.

Recruitment and Initiation. *Mentees had to apply to be part of the mentoring programme and completed an assessment to decide who were the most appropriate candidates. Then mentees met with their mentors and agreed how they were going to work together.* All mentees described the process of selection and first meeting in a way that is consistent with the MSF framework. All mentees described how in the first meeting they went through the mentoring agreement and most used language embedded in the materials, for example, how it was important that the relationship was “non-judgmental and respectful”. However, as will be argued further below, there seemed to be a greater degree of clarity and confidence on the part of the V2 mentees interviewed in terms of the process and why they were engaged in this.

Teaching. *Mentors would come into the mentees' facility on a regular basis and offer a teaching session on a particular aspect of the relevant health condition being focused on.* When V1 was conducted in August 2019, the teaching part of the process was delivered differently by different mentors (due to audience size principally). All mentees said that they found the knowledge communicated in the teaching sessions to be of value and that it, in many cases, made them aware of things that they were not aware they needed to know. At that time, some mentors delivered the sessions to very small groups or individuals, whereas others did so in larger facilities delivered to bigger groups, which clearly impacted on what methods they were able to employ. Also, these teaching sessions were limited to those participating in the mentoring programme. However, at V2, it was clear that for the clinical mentees, a significant change in approach had been implemented. At each of the new facilities, everyone in the facility was invited to the teaching session, not just the mentees who had been selected to participate. This change was significant for all the mentors (V2) as they felt that they had responded to the feedback from the first visit and sought to increase the number of people in each selected facility who could benefit from the new medical knowledge on NCDs that they were bringing to each of the new facilities.

The MSF framework offers several methods of teaching and learning referred to as “Teaching in the workplace – instructional methods” which include side by side mentoring, case studies and file reviews. It also suggests more interactive methods such as simulation and role play. What was noticeable about all the teaching sessions observed in V2 was that they were very 'teacher-led' in terms of process.

In all the clinical 'one-to-several' teaching sessions, a common style was observed. The mentor leading the session talks through an aspect of one of the four conditions and, at various points, stops speaking and then invites the 'class' to fill in the missing word. Often, this would be an obvious word such as "diabetes". Usually, towards the end of each session someone would be invited to the front and to write on the board, their answer to a question or a patient-scenario posed by the mentor and they would then be told whether it was right or not. While the group were undoubtedly being given the correct information and protocols about the NCDs – a clear knowledge gap for MoH staff – there was relatively little evidence of any contribution from the group in terms of understanding the condition under scrutiny. Occasionally, there was a brief question of clarification of the information. However, there was a clear absence of participants bringing up scenarios or patients that they have been faced with in clinics. Hence, it was difficult for the mentor/teacher to assess at the end of the session what had been absorbed or learnt. In that sense, all conventional teaching sessions more closely resembled the pedagogy most often used to teach children rather than professional adult learners. In summary, there was, on the one hand, clear evidence in the teaching materials and processes used of information being effectively communicated. There was less obvious evidence of (a) mentoring and (b) of things actually being learnt, at that point.

This was different in the one-to-one CHV teaching sessions that were observed. In these sessions, core counselling skills, e.g. effective listening, were being examined but there was opportunity for the mentor to probe and check the understanding of the mentee. Again, the handouts were comprehensive but there was

more opportunity for the mentee to say what they thought in response to the questions asked. However, there still appeared to be, even in these sessions, an emphasis on the mentor imparting knowledge rather than a mentoring type conversation about what the mentee wanted or needed to learn.

Discussion after patient consultation. *The mentees would conduct medical appointments with patients with their mentors present in the session and would work with those who presented with the relevant health condition. The mentor and mentee would discuss the patient sessions and identify any development needs that the mentee then has as a result.* In particular, it was clear from V1 that it is when the mentor and mentee have a debrief following the patient session, the discussion stage, that this most closely matches the mentoring values espoused in the MSF mentoring framework. A number of the mentees supported the view – central to the MSF framework documents – that their mentoring relationship is adult-to adult. For example, Mentee 6 (CO V1) described his mentoring relationship as being like "two colleagues". He saw the mentor and himself as being in partnership when dealing with patients. However, he did acknowledge that "she corrects me in front of the patient" when this is required.

Based on data from V1 and direct observation as part of V2, different mentors had different approaches to dealing with constructive feedback. Based on interviews from V1, some mentors chose to correct the mentee in front of the patient, hence making it clear that the mentee was in a learning relationship. However, after observing eight mentoring sessions with patients, there were no obvious examples of where the mentor 'corrected' the mentee in front of the patient. That said, there were some examples of where it could be argued that the mentor was checking on the accuracy of the mentee's observations. In all the mentoring observations, the mentee tended to take the lead in conducting any physical examinations. Nevertheless, in two cases, the mentor repeated the physical examination to confirm what the mentee had already found. In the other cases, the mentor when, for example, taking blood pressure readings would report them back to the mentor who would be looking at the medical history to discern whether these readings were consistent with the pattern in the notes. Others found it better to work alongside the mentee and, in some cases, leave the patient to assume that the mentor and mentee were simply two colleagues of equal status working in tandem. In the latter case, some mentees reported that their mentor offers a summary of their diagnosis of the situation which they felt was a "gentler" way of receiving feedback on their performance, following the mentees' initial analysis. This method of feedback also had the advantage of not diminishing the mentees' competence in the eyes of the patients. As observed during V2, in some cases, the mentor and mentee had a pre-discussion of the patient prior to the patient entering the room, where the mentor flagged up some possible indicators to look for when conducting a physical examination with the patient. It was also observed during V2, that once the patient left the room, some mentors would initiate a debrief where they would reflect on how the mentee handled the patient, how they conducted the physical examination and what things there were to look out for next time such a patient came to see them. However, as observed during V2, other mentors seemed to go straight into the session with their mentee and then either conduct a brief debrief following it or move onto the next patient. It was not possible to observe a mentor and mentee's entire interactions across a range of patients due to the constraints of the evaluation exercise (the need to observe different mentors and to gain informed consent from patients in terms of being observed).

Evaluation. *The mentor evaluates the mentees, in terms of knowledge, practical skills, and attitude.* The evaluation process was consistent with that which was described in the MSF mentoring programme documentation. The way that this phase is enacted is elaborated in detail the below section.

Other aspects of model which include the impact of power dynamics and the place for long-term career discussions will be examined later in the report.

What amendments are necessary to better embed the mentoring approach in this specific context?

Even though the V1 data collection process did not reveal many obvious areas that required significant cultural adaptation, it was possible to identify some potential areas for improvement. They were included as suggestions for improvement in the interim evaluation report and reassessed during V2. They are presented below, together with their update (if any) during the second cycle.

Firstly, although it makes sense to allow mentors to adapt the mentoring model to suit their specific circumstances, there does seem to be an argument for a consistent approach to be adopted in relation to constructive feedback and education of mentees. While some variation in approach might be expected, given the specific contexts of the various patient sessions, during the observations of the mentoring sessions it was not always evident where and how the learning for the mentee was taking place. This learning was at its most obvious where the mentor and mentee had a debrief, following the patient session. As will be argued later in the report, there is scope for mentees to use the relationship with their mentor as a benchmark for how they work with patients to educate them about their health conditions. It did seem to be the case that correcting a mentee in front of the patient versus debriefing them afterwards by mutually exploring solutions, represented quite different assumptions about how people learn. It was recommended, in the interim report, that mentors find ways of mutually exploring solutions following the patient consultation, rather than correcting them in front of the patient. The latter course of action runs the risk of undermining the relationship between patient and mentee. This recommendation was made with the proviso that if the patient's health is being put at risk, then the mentor may need to intervene prior to patient leaving the consultation. Based on the mentoring observations, the mentoring pairs had clearly established ways of ensuring that patient safety was not compromised or that patient confidence in the mentee was not undermined, e.g. the mentor summarising the diagnosis for the patient, repeating or taking part in the physical examination. However, this does necessarily mitigate the points made above in relation to mentee debriefs.

Secondly, as noted above, the teaching methods used seemed principally to be limited to PowerPoint presentations and case review. The impression given in the V1 interviews, and supported by observation of direct sessions during V2, was that the methods used were often more didactic in nature. Mentors could have better reflected the range of methods identified in the MSF programme materials developed by SAMU by using more interactive methods. Mentors could be encouraged to give mentees more ownership and responsibility within the sessions to encourage greater embedment within their context. These possibilities were raised in the interim report and was discussed with the mentors, MSF and MoH staff interviewed at V2. They will be examined further in the recommendations section of this report.

Finally, as explored above, the interviews at V1 and observations during V2 indicate that there were different practices adopted by mentoring pairs in relation to summative discussions at the end of each observed period of sessions. Some made a point of reviewing within and between sessions while others had a review meeting at the end of all patient-involved sessions. Again, there is an argument for a consistent approach to these review sessions to ensure that the learning is fully embedded. It was and is recommended that mentoring pairs engage in both practices where possible. This is because there is benefit in immediately reviewing a session to ensure that learning is captured and embedded but it is also important that the mentee has the opportunity to integrate their learning into a whole at the end of the patients' sessions. This gives them a means to identify key actions that need to be taken to develop themselves.

In addition, although not mentioned in the interim evaluation report, another key amendment that has been made since V1 has been the wider sharing of clinical mentoring loads across nurses and COs. CO mentors were now allocated nurse mentees which enabled the spread of workload and widened the number of nurse mentees that could be developed within each facility.

CONTRIBUTION TO MOH STAFF SKILLS DEVELOPMENT

MoH staff competences have developed significantly as evidenced by improvement in quantitative measures (post test scores, weekly observational grid) and by qualitative measures (individual interviews and FGDs). This was particularly pronounced for CHV staff, but positive progress is and was also evident for COs and Nurses. Suggestions for enhancing practice here include recognising the scope for more mentor development and introducing formal pre and post tests for mentees' practical skills and attitudes.

How are the baseline competences (knowledge, applied practical skills, and attitude) defined for the mentees?

Knowledge. Base line competences appeared to be defined principally in terms of knowledge at the beginning of the mentoring process and prior to the weekly teaching and mentoring sessions. All mentoring participants from both visits described how, at the start of the process, the mentee would complete a pre-test for each health condition. All mentees and most mentors felt that this was a useful way of assessing existing knowledge. For example, Mentor 1 V1 (CO) felt that the pre-test was effective as it "*enables us to see where the weaknesses lie and to assess the current state of the mentees knowledge*". He felt that it "*creates a 'starting environment'*" from which it is possible to measure progress. Mentor 5 V1 also agreed with this saying "*you get to know what the mentee knows*". This was corroborated by the analysis of mentee interviews at V2. All of the V2 mentees reported that mentees found it very useful to have the pre-test because it helps them to realise what they do not know and motivates them to fill their knowledge gap so that they can be more effective with their patients in the future.

The interviews at V1 indicated some discrepancy in terms of how the pre-test is useful to be able to adapt the mentoring sessions. Some mentors, like Mentor 2 V1 (N) said, of the pre-test: "*This is helpful. It helps the Mentor to see gaps in knowledge and where to put more emphasis*". In contrast, other mentors, like Mentor 4 V1 (N) felt that the pre-test score "*did not matter as it does not change what we teach*" but agreed that it did help to identify gaps in mentee knowledge. The interviews and the mentor focus group V2 supported this latter view, that the learning agenda is not principally based on pre-test results, with the main knowledge and skills required being more defined by the published protocols rather than by targeting individual knowledge gaps.

A specific area raised in V1 is the impact that assessment itself can have on the mentees. As Mentor 4 (N) V1, stated, she "*tries not to dwell too much on pre-test because the results could make them 'fearful'*" and "*reassures them that the pre-test is not a measure of intelligence; it is important to explain its purpose*". Even if other mentors did not explicitly mention fear of assessment, comments from many of mentees in V1 indicated that they were very aware of being assessed. However, this fear of being assessed did not seem to be very present in the interviews with the mentees in V2. All the V2 mentees seem to accept and respect the need to be assessed in terms of their ability to deal with NCD patients. This may have been because, this time around, the process has been better communicated and signposted to the current cohort. Also, the fact that there is already a cohort who have completed the programme and who are still practicing in the region may have contributed to a better understanding and appreciation as to the purpose of the mentoring process and its attendant assessment requirements.

Nevertheless, overall, the data collected still draws attention to whether the assessment of the mentees militates against the principles embedded in the mentoring programme – this theme is explored later in the report.

Practical skills and attitudes. At V1, there was little evidence of baseline competences assessment on mentees applied practical skills and attitudes at the beginning of the process – despite this being mentioned in the MSF mentoring framework. As V1 mentees moved through the mentoring programme, the mentor did assess their skills and attitude via the weekly grid, but this did not seem to happen at the start of each module. This is supported by the concerns raised by some mentors at V1 as to whether the pre-test does give a sufficiently global picture of the mentee's current level of competence. Others raised the question as to whether it was possible to have strong theoretical knowledge (assessed in the pre-test) but then not be able to apply this knowledge practically. Unfortunately, there did not seem to be much evidence that this had changed between V1 and V2. There still seemed to be a reliance on the pre-test as a baseline assessment of where the mentee was in terms of their basic knowledge of how to work with each NCD condition. Although, as discussed below, the weekly observational grid is helpful in assessing improvements in skills and attitude, a pre-test and post-test practical assessment of these is still absent. Hence, a suggested improvement to the mentoring process is that each mentee is observed working with a patient, prior to beginning on the programme, and is given a baseline score of their existing knowledge, skills and attitude so as to demonstrate practical improvement throughout the process. It is also suggested that a post-test assessment is also conducted of these practical skills. These assessments could be conducted by someone who is not the mentee's mentor.

How is the progress being measured?

There does seem to be a clearly defined monitoring framework to measure mentee progress. Mentee progress in terms of their acquisition of medical competence is measured by comparing the pre- and post-test scores on each health condition as well as via the weekly observational grid.

Weekly Observation Grid. The main way that this is assessed is through the Weekly Observational Grid (WOG) that is completed by the mentor. This covers the mentees' theoretical knowledge about the condition, how that knowledge should be applied in a patient consultation and how the mentee engages in an effective helping relationship with the patient in terms of attitude. Each subcomponent of the weekly scores was given a mark (1-3) and then these scores were added together to give total score for the week. For example, in Week 9 (V1) of the Epilepsy module, it was possible to get a maximum score of 27 (nine subcomponents). The raw scores for each week were then expressed as a percentage of the total score. The knowledge indicators for that week require mentees to understand how to take a focused history from a patient, understand the 4-step neurological exam for a patient with a seizure and to list the trigger factors for epilepsy. The applied skills components then assessed how well the mentee performed a focused history taking, conducted a neurological exam and whether they were able to practically differentiate between seizures etc. The attitude component assessed the way in which the mentee managed the patient in terms of their 'bedside manner', i.e. whether the physical examinations were conducted in a sensitive and gentle manner.

There seemed to be different practices in terms of how and when the mentors assessed the mentee in terms of their clinical performance. Some mentors filled the form in with the mentee alongside them whereas others did this at a later stage. Filling the form in with the mentee does seem to be an opportunity to help the mentee understand what is required, by filling it in alongside them so that they can understand by what criteria they are being judged.

Most interviewees in V1 and V2 felt that the weekly observational grid was the best indicator of mentee progress. This seemed to be due to the very specific nature of the weekly goals, which are broken down into

knowledge, skills, and attitude. These behaviours seemed to be helpful in charting mentee progress and participants, in both visits were all positive about these.

Post-test. The comments were similar in relation to the utility of the post-test although there was a more mixed view of how useful the post-test was as a way of assessing mentees' competence to practice in the relevant health condition. Mentor 1 (CO) V1 felt that this was "very theoretical" hence did not test for practical competence whilst Mentor 4 (N) pointed out, conversely, that it was possible to fail the post-test but still do well. At the same time, Mentor 6 (CHV) V1 felt that both the pre- and post-tests were "*a good measure of your impact*" as a mentor, Mentor 9 (CHV) V1 felt that "*pre-test and post-test are multiple choice questions which limit thinking and the mentee could guess the answer from another question that is asked*" and argued that open questions would be better as a way of assessing this.

In relation to the WOG, the mentors were generally more positive about this as a measure of core competence in a particular health condition. For example, Mentor 1 (CO) V1 argued that "*the results of the observation grid are more important than those of the post test, so the state of knowledge of the mentee should be judged against this*". Mentor 3 (N) V1 agreed, stating that "*it is a good way of evaluating the mentee because the mentor can observe and see if the mentee is following the right procedures*". Mentor 9 (CHV) V1 felt that "*the observational grid is good, but it is possible to lose track and forget things that happen in earlier weeks which could affect the scoring but still the observational grid is a better indicator of the competences of the mentee*".

In summary, a key finding was that the pre-test questionnaire provided a useful starting place because it in part defined a learning agenda for the mentee by helping them understand where the gaps in their knowledge were. However, the case for having the post-test as a 'sign-off' of mentee competence was less persuasive as it appears possible to do well on the theoretical aspects of a particular health condition but then to be less competent when operationalising that knowledge with patient, both in terms of practical medical skills and patient care. A more reliable sign-off seems to be the use of WOG, which demonstrates weekly improvement and competence in depth regarding a condition. There is still an argument for retaining the post-test scoring as for some it demonstrates mentee learning and attainment and is motivational as a result. However, it is suggested the WOG be used and adapted to demonstrate sign-off of medical competence. This could be done by having a summative post-test which assessed the practical skills and attitudes of the mentee. This assessment could be conducted by other mentors, i.e. not the mentees' original mentor. Looking at the MSF SAMU Clinical Mentoring Job Aide documentation, there is clear reference to an initial and final evaluation of competencies. However, no mentor or mentee made explicit references to these mechanisms in their interviews or FGDs which means that there is no evidence at present to support the fact that these are taking place.

This does seem to cover the main areas of work in terms of content. What it does not necessarily cover is the mentee's career progress as a learner and how they are taking ownership of their own learning (this will be explored later).

What has been learned by the mentees (knowledge, practical skills, and attitude)?

All mentees, but particularly those in V2, were positive about what they had learned or were in the process of learning on the programme. All of them pointed to the content knowledge itself as a key benefit. One of most common examples of this was the knowledge acquired about diagnosing and treating hypertension, with a number of the clinical mentees speaking of how they used to routinely refer such patients to level 5 or immediately place them on drugs. Understanding that it was important to take three readings and build a picture of pattern was a key learning for a number of these mentees.

Mentee 10 (CHV) V1 commented that what he had learnt was how to remain calm and objective with patients who are upset or angry and you "come up with a way of handling that patient" - hence, for this mentee a key area that he had developed was his attitude in relation to working with NCD patients. This sentiment was mentioned by many of the mentees in terms of the development of their attitude when dealing with patients.

This demonstrates the general trend evident in the objective data sets. Looking at the WOG scores for Cycle 1, Module 1 of the mentoring project for the clinical mentees (clinical officers and nurses), on average the mentees' scores improved by 23 percentage points on average per week, following each intervention. In Cycle 2, Module 1 a similar trend can be seen. On average, the WOG shows that on average, mentee attainment scores improved by 28 percentage points per week, following each mentoring intervention. There is a similar trend for the CHV mentees, who on average in Cycle 2, Module 2, improved by an average of 20 percentage points.

Generally, when looking at the pre-test, the average pre-test scores were lower for the CHVs than they were for the COs and nurses. This may be because, as many of the MSF management staff pointed out, the baseline education levels for the volunteers was often lower than for the clinically trained staff. However, this also meant that the CHVs tended to show the biggest improvements from their baseline scores. As observed in table 1, all 95% CI overlapped, indicating that these differences by cadre were not statistically significant. Confidence interval calculation conducted by gender did not show statistically significant differences either.

Table 1. Average knowledge scores, baseline (pre-test) and change by cadre. Pre and post-tests, Cycle 1, MSF Embu Project, 2017-2019.

	Baseline [95% CI]	Overall Change [95% CI]
Clinical Officers	79 [73-90]	9 [4-14]
Nurses	75 [71-89]	13 [9-17]
Community Health Volunteer	61 [54-79]	17 [13-22]
Total	72	13

In terms of cadre, there was not a great deal that differentiated the CO scores or responses from those of the nurses overall, as well in terms of measuring progress. As argued above, CHVs objective scores and progress demonstrated a steeper initial learning curve for that of clinically trained mentees.

Table 2 and 3 below show the average change in knowledge scores from the first four modules in the V1 facilities. As can be seen from these scores, there has been a significant improvement in the medical knowledge of the clinical staff (nurses and COs). Difference in change of knowledge score by medical area were small and not statistically significant (CI).

Table 2. Average change in knowledge scores, by cadre and medical area. Pre and post-test, Cycle 1, MSF Embu Project, 2017-2019.

	Diabetes M	Hypertension	Asthma	Epilepsy
Clinical Officers	14	12	5	8
Nurses	13	12	13	14
Total	13	12	10	12

Table 3. Average change in CHV knowledge scores by medical area. Pre and post-test, Cycle 1, MSF Embu Project, 2017-2019.

	DM & HTN	Asthma & Epilepsy	Counselling
Community Health Volunteer	17	13	20

In addition to their specific development in knowledge, practical skills, and attitude, all mentees referred to an increase in their personal level of confidence when dealing with NCD patients. Mentee 7 (N) V1 said that she benefitted hugely in terms of personal confidence to work with patients with NCDs. This was supported by Mentee 3 (N) and Mentee 2 (CO) in V2. Mentee 2 commented: *"The information and knowledge that you need is changing all the time. I have been practicing for 5 years now and have an interest in NCDs but have never before sent someone for creatinine clearance but for the last three weeks I have been and that is good. It is working well so far. When I feel I am giving something to the community, and it is current and is good and makes me feel good and you work with enthusiasm"*. This comment, as well as illustrating the confidence that the mentee has in using the creatine clearance test, also suggests that increased motivation might be an additional consequence of mentoring.

How do you ensure continuous professional development (CPD)?

One of the key issues to emerge from the interviews and focus groups in relation to the mentoring process was that all the participants were very focused on the immediate task of filling the knowledge gap for the mentees in terms of the four health conditions. What was less present in their accounts of their relationships, was a focus on the CPD of the mentees themselves. This seems largely to be because the CM model as operationalised in Embu is focused on developing specific knowledge, skills, and attitudes in relation to the four conditions. Hence, the learning objectives for the relationships have largely been predetermined at the start of the initiative. In this sense, there is little space for mentors and mentees to have a conversation about the mentoring.

However, it is important to briefly explore further what is meant by CPD in this context before examining how this might be ensured.

Mentees CPD. Firstly, it can be examined by looking at CPD for mentees in terms of their improvement. Most mentoring participants saw this in terms of mentees using the same learning model to explore new health conditions and several referred to the possibility of using this model for learning more about non-NCD conditions also. One of the MSF doctors (V1), in their interview, felt that this was the dominant CPD model that they were used in their own training: *"Where I come from, you'd work in a mentoring way with your mentor with whichever patients come through the door. You wouldn't just pick those with NCDs"*. Aside from this, there was relatively little questioning or challenge of how CPD would be enacted within the Embu mentoring project. Most participants seemed to feel that by being involved in the current mentoring scheme, that they were already engaging in CPD and therefore their main concern was that the current process should continue or be extended. This seems to link also to the question of sustainability (discussed elsewhere in this report). Kasse et al's⁵ study of promoting local ownership of AIDS-care-focused mentoring in Ethiopia stresses the importance of continuous development of the mentees and mentors to ensure sustainable CPD. This issue of sustainable CPD for mentees was debated extensively in the mentor focus group (V2). Several mentors referred to the importance of establishing a learning culture within MoH facilities in the region to maximise the legacy of MSF's presence. However, as was raised in other fora, the issue of sustainability of learning was seen as being fundamentally intertwined with the supply of drugs. As one participant V1 put it, *"if the drugs*

⁵ Kasse, G.M., Beley, T.Sharma, T., and Feleke, F (2018) 'Promoting Local Ownership: Lessons Learned from The Process of Transitioning Clinical Mentoring of HIV Care and Treatment in Ethiopia', *Frontiers in Public Health*, February 2018, Volume 6, Article 14.

aren't available and MoH doesn't deal with NCDs, the knowledge will die in the system as MoH staff needs to practice their skills and prescribe the drugs".

Mentors CPD. CPD can also be applied to the mentors themselves. All mentors pointed to how useful they found the initial briefing and training in relation to mentoring and how to conduct mentoring conversations in this context. This training could be extended so as to enable greater mentor capacity as most of the mentors and the mentees felt that it was important to try and reach as many nurses, COs and CHVs as possible to maximise the reach of the programme. In the coaching and mentoring literature, one way of developing mentors is via mentoring supervision. This is not understood as supervision in a clinical setting but as understood in helping professions⁶ within the social science world, e.g. social work, psychotherapy, and teaching. In this context, the CPD is principally concerned with helping the helper to be more effective in helping others. Often, in organisational settings where mentoring takes place (including in MSF), this is done as a group process⁷ as it enables participants to learn from each other as well as from the facilitator. Translating this into the Embu mentoring context might mean training mentors to work as group supervision facilitators. This would mean working with larger groups of mentees where the agenda could be one of learning from each other's experiences and cases. CPD is an essential component of the European Mentoring and Coaching Council's (Europe's premier professional body in coaching & mentoring) International Standards for Mentoring & Coaching Programmes (ISMCP)⁸. This is similar for the International Coach Federation and their approach to developing professionalism⁹. Hence, it is important to recognise that mentor development is seen to be an important aspect of successful mentoring programmes and should be treated with similar importance to the development of the mentees themselves.

Accreditation. One of the issues raised by MoH county staff in V1, mentors and other MSF staff was the issue of mentee motivation. It has been argued that accrediting mentees for their participation in the mentoring processes would give them credibility across the county, and perhaps beyond the Embu county, in terms of their expertise in working with NCD patients. This issue of accreditation has a few facets to it that should be considered. Firstly, it is important to ask who and what should be accredited. Currently, mentees receive a certificate from MSF for their completion of the programme. However, as a senior MoH official (V2) pointed out, this is not formally recognised at county level. She argued that it would be a good idea to involve the MoH at Divisional level to ensure that the MSF programme has national recognition in terms of NCD education. Secondly, it is important to point that this sort of accreditation would be accreditation of the medical knowledge and practice specifically. This is not the same as the accreditation processes undertaken by EMCC and ICF who accredit the mentoring scheme processes specifically, not the knowledge that is disseminated using those processes. Such mentoring accreditation processes are usually directed at a scheme level or at mentors at an individual level. Currently, there are ten mentors who would be eligible for such mentoring accreditation, potentially and these are all MSF employees. This raises an additional facet of the accreditation question. MSF itself already has scheme accreditation for its MSF staff mentoring through the EMCC but this accreditation is specifically for MSF staff mentoring other MSF staff, rather than local health care professionals not employed by MSF. It is not clear how individual MSF mentors would benefit from an individual accreditation. However, all the mentors referred to a training-of-trainers (ToT) approach, which has not yet begun, which might mean that former mentees who then develop as trainers of others and then potentially as mentors themselves. According to a senior MSF staff member, the original plan was that the MSF Learning and Development Unit would take the mentors through the ToT first, then this would be rolled out to mentees in the fourth quarter. Meanwhile, in Kiritiri, the mentoring team enhanced the Continued Medical Education Sessions (CMES) which are now established. The sessions cover all medical and non-medical topics and are conducted by the facility staff, every Wednesday.

⁶ Hawkins, P and Shohet, R (2006) 'Supervision in the Helping Professions', 2nd Edition, Maidenhead: Open University Press.

⁷ Proctor, B (2008) "Group Supervision: A Guide to Creative Practice", 2nd Edition, London: Sage.

⁸ <https://www.emccouncil.org/accreditation/ismcp/>

⁹ <https://coachfederation.org/icf-credential/professional-development>

Hence, an additional suggestion is that MSF works in collaboration with MoH to identify an accreditation process that satisfies MSF and MoH processes, but which also potentially enables professional recognition for the mentoring skills learnt and developed.

What learning can be taken forward and embedded into adaptation of the mentoring programme as it progresses?

Beyond the facilities. Following V1, most of mentoring participants – both mentors and mentees have mentioned how they were now using the medical knowledge and awareness of NCDs in their personal lives to help positively influence the medical outcomes for family and friends. The V1 interviews and FGDs revealed that the programme is having an effect beyond that of the patients being treated in the selected facilities. Though this does not appear to have been an intended outcome at the start of the programme, it may nevertheless be possible to encourage this dynamic in order to better educate patients about their NCDs.

Mentoring training for mentees. In the interviews at V1 and V2, most of the mentees were describing how they themselves were starting to be seen as the experts on NCDs in their respective facilities and that this was leading to these mentees mentoring other staff in their facilities, on an informal basis. Within the interim report after V1, it was suggested that such mentees might be encouraged to do this so that the basic knowledge and awareness of these conditions might be spread more widely in the facilities. This was supported by some of the mentors in the V1 Mentor FGD. One mentor V1 (N) said: "*I keep finding that the ones in the facilities who haven't been mentored have been approaching the mentees asking for assistance. This is not /.../ official /.../ but is capacity building within the County*".

Furthermore, the MSF Mentoring Implementation Guide does refer to Cycle Z, where mentees are mentored to become future mentors of their peers or colleagues. At V2, it was clear that the ToT process of training mentees was a possible source for this. Whilst having such a process might be challenging in some of the very small facilities, it was felt that in the larger facilities, e.g. Kiritiri, it would be possible to have experienced mentees running teaching sessions and even acting as mentors within their facilities. Setting up some basic mentoring training, in addition to ToT, for these mentees would also seem to be a good way forward. At V2, some mentors said that this process was just getting underway in some of these larger facilities.

Group sessions. Mentors would benefit from further training and development in running group sessions for their mentees where they collectively examine each other's practice (as distinct from engaging in learning theoretical knowledge together). This process was debated with each of the mentors at V2. The consensus was that this would work well although some practical issues would need to be overcome. For example, Mentor 3 (N) V2 thought it was "*a good idea to work with lots of people rather than just one or two so that they can spread NCD patients out amongst themselves and take better care of them*". She believed that they were currently working with more people in the facility now, through the extended teaching sessions which partly address this. Nevertheless, these teaching sessions are, as argued above, mainly one-way transmission of knowledge as opposed to group-learning sessions where a range of perspectives and experiences are shared. However, Mentor 8 (CHV) raised the issue of *how often* these learning events could happen. Time was again mentioned as a challenge. Nevertheless, he felt that this approach could be incorporated into the mentors' teaching methodology.

In the case of the CHVs, they had their own version of action-learning sets which include bigger groups of CHVs. Some of the training methodologies involve working in groups, where there is some transfer of knowledge. They used to have quarterly meetings where mentees would meet, and they will be doing this again in the new facilities. Mentees would meet in training, go through information together and have the opportunity to contribute, respond to issues and give feedback. Hence, setting up training so that they can effectively run such groups sessions, particularly for clinical mentors, seems to be a promising way forward.

Practical formative and summative pre- and post-tests. As was previously claimed, although the MSF guidance mentions the importance of assessing mentees practical skills pre- and post-mentoring, there was not any evidence that these activities were actually being carried out. In the interim report, it was recommended that all mentees should be practically assessed on skills and attitude as well as knowledge before they start the mentoring and at the end of the mentoring process for each module. However, some mentors felt that this assessment might be "too much" given that the mentees already have a practical assessment after each session. There would clearly be an additional burden on assessors, probably the mentors, this could take the form of a mentor sitting in as an observer of a one-patient session. This could be done by mentors when they are in clinic mentoring their own mentees, and hence, the need not be a big logistical challenge. Furthermore, if improvements in skills and attitude of mentees are considered as important as knowledge, it seems strange that these are not being assessed in a summative way.

How sustainable is this development?

According to a senior MSF staff member (V1) on the management team for the project, the intent from the beginning of the mentoring project was to develop a project and way of learning that could be continued once MSF's mission was complete. According to senior MSF and MoH interviews V1, the benefit of using mentoring as the learning process was that the medical knowledge, once passed, would not be lost to the system (assuming the mentees remained within the County health care system). This was confirmed in interviews in V2. Hence, following discussions with SAMU, it was felt that CM was a way of building capacity which did not involve MSF staff simply delivering the care, but supporting the County staff in delivering better care by enhancing the capability of its staff.

MoH early involvement. All MoH County staff (V1 and V2) interviewed felt that, because they had been involved in the scheme's inception, it would be possible and feasible for the County to continue with the process once MSF exit the region. However, it was not clear how this would happen in relation to the recruitment and deployment of mentors and who would in fact be in charge of making this happen.

Mentors. This development is sustainable but rests very much on the ability of Embu County to identify, recruit and develop effective mentors. All MoH and MSF support staff, in their respective interviews and focus groups, felt that the mentors were extremely competent and were instrumental to the success of the initiative. The extent to which the mentoring programme is sustainable or not may depend on the quality of MoH mentors who are then developed. As discussed above, the ToT process being introduced in larger facilities (V2) would help to develop mentees as teachers of NCDs but it remains unclear as to whether there is sufficient collective will to develop them as mentors, in the same way that the MSF mentors are. This is discussed further below.

Mentees development. A key facet of this is ensuring that the CM approach is embedded within the facilities such that, when MSFs direct involvement ceases, the mentoring process will continue, and mentees will continue to be upskilled as part of the process. As one senior MSF manager V1 put it: "*You hope the mentees, now that they have the skills, they don't keep it to themselves but share with others*". However, what was not clear was what MSF was doing in order to facilitate that aspiration. Some mentors (see above) had noticed that some mentees were being approached to act as informal mentors by other MoH staff in their facility but there was little evidence at V1 of any active formal encouragement or development of the mentees to do this. Whilst the ToT process is a sign of progress here at V2, it was not clear to what extent this would be developed and extended by MoH, supported by MSF. One idea discussed with mentors in the mentor focus group and with individual mentors was the idea of an NCD Champion within each facility. This will be explored later within the Recommendations section of this report.

Drugs supply and other contextual factors. This evaluation has been principally concerned with the appropriateness and effectiveness of the mentoring itself, but contextual factors around drug availability and

other supporting structures that enable the mentoring to take place cannot be ignored when assessing its sustainability. In this sense, a concern expressed by the majority of the clinical mentees was what would happen when MSF leaves the Embu County region and that the drugs to treat, for example hypertension, were not available.

As Mentee 4 (N) V1 pointed out, "if the drugs are not there... patients are getting the drugs now... but if they are not there consistently, that is a problem as people will tell you they cannot afford to buy the drugs". This concern was also mirrored in both the Patient FGDs V1 and V2. Patient 6 V1 expressed concern as to whether the drugs would continue to be available on a long-term basis and there was widespread agreement expressed. It is beyond the scope of this evaluation to accurately assess the veracity of stock-out claims made by participants and patients. Clearly, the lack of availability of appropriate drugs to treat the conditions is a major constraint on how effective the mentees were able to be in their particular contexts.

This linked to the mentoring programme in terms of constraints because some clinical mentees felt uncomfortable using their new knowledge to prescribe drugs to patients when they were aware that these drugs may be beyond the reach of some patients.

IMPLEMENTATION OF THE MENTORING COMPONENT

The mentoring component is being implemented well in Embu. The main enabling factors for this include having a positive working relationship with Embu County MoH officials, early engagement with mentors, a relatively stable societal context and strong mentor performance. The main challenges included the associated burden of the mentoring, structural elements of the system, and MSF support issues and repetitions of cycles. It is possible to make some suggestions for improvement. Mentors could encourage mentees to take more ownership of their long-term career development. The implications from different models or applications of mentoring are examined in a later section of this report.

How might models and approaches from other mentoring models be used within the Embu project?

Most participants in the study tended to focus on the content of what had been learned and how this was being assessed and put into practice. However, there was little emphasis on the mentee themselves and their broader career aspirations and horizons, which would be more typical of DM. This could be something that mentors could introduce within the Embu mentoring programme as it would encourage a sense of ownership of their own learning on the part of the mentees and would identify a learning agenda for them in terms of career progression.

DM approaches in other contexts emphasise (a) the non-directiveness of the approach and (b) the importance of mentee ownership of the goals or the purpose of the mentoring relationship. What is currently missing from the Embu mentoring project, in terms of its design and practical implementation, is a space for mentees to discuss their long-term career aspirations and goals. The nature of the mentoring approach in Embu is debated in a later section of this report.

What are the main enabling factors?

Positive working relationship with Embu County MoH officials. All MoH officials who were interviewed made a point of saying how the fact that MSF engaged with them, prior to implementation (through initial exploration and embedment) was particularly helpful. MSF compared favourably with other NGOs and humanitarian organizations in this respect. A member of MoH senior management made this comment (V1): "*There is good collaboration which started right from the beginning and good 'cordial relationships'*". This was also confirmed by the senior MSF staff involved in the initial set up of the project in 2017. In the mentor focus group (V2), this sentiment was supported by a number of the mentors, with one stating "*it is important to have a key person that you can go to, to make sure there is a good relationship with the County*" with another mentor arguing that it would be difficult to proceed without that positive relationship. A senior MSF manager also commented (V2) that the NCD position at MoH county level came about because of the dialogue between MSF and MoH.

Early engagement with the mentors. This was done in terms of (a) the mentoring process and (b) the teaching material development such that there was a degree of ownership. All mentors referred to the benefit of having time to engage with the mentoring process via the mentoring training offered plus being able to work together as a group to develop the medical knowledge that would be included in the weekly teaching sessions for each condition. They also had the chance to develop the pre- and post-test questions to test the core knowledge of the mentees. A senior MSF V1 felt that the "*fact we had our NCD guidelines ready*" was helpful when preparing the teaching materials for the mentoring process.

Relatively stable societal context in Embu which has meant that security was less of an issue. Comparing with other settings where MSF operates, Embu County can be considered as a stable context. It facilitates operational aspect such as planification and midterm projection. This may change in 2022 when a new general election takes place as, according to a senior MoH County official V2 "*a new person behind the desk may have different ideas*".

Mentors performance. All mentees were complimentary about their mentors and the way that the relationship was set up and conducted. For example, Mentee 2 (CO) V1 commented: "*My mentor was very good. She would listen to me, she would correct me – she taught me a lot*".

In terms of other enabling factors, Garvey et al 10 identify some key factors that enable effective mentoring practice in all mentoring programmes which seem to have contributed to the successes seen in Embu.

1. **Clarity of Purpose** – mentoring schemes tend to be much more successful if there is a very clear and compelling reason for them. In some cases, organisations have mentoring schemes because competitor organisations have them or because they are a way of marketing good HR practice. Such schemes are often not sustained because, when resources or funding become more difficult to acquire, there is not a compelling reason for keeping them going. The Embu NCD project has a clear purpose and set of measures for achieving improvements in NCD care.
2. **Credibility** – it is important that mentors have credibility in the eyes of the mentees. In the case of Embu mentoring programme, the mentees view the mentors as strong practitioners in their respective fields.
3. **Availability** – in some mentoring programmes (for example positive action mentoring schemes to address diversity issues), there is a challenge to gain access to mentors because of the need to self-

¹⁰ Garvey, B. Stokes, P. and Megginson, D. (2018) 'Coaching and Mentoring Theory & Practice', 3rd Edition, London: Sage.

refer and to gain access to the mentor's expertise. In the Embu context, the intervention is already structured so that the mentors are available on a predictable and reliable basis.

4. *Motivation* – understanding the motivations of all stakeholders in a mentoring scheme is critical. In the Embu scheme, mentors are employed by MSF to work with the mentees and the mentees apply to be part of the programme.

What are the main obstacles/constraints?

Associated burden. A key issue was one of recognising the specific field constraints facing staff in Embu in terms of the increased workload. Most mentees (V1 and V2) mentioned that, as a result of their mentoring and increased capability with NCD patients, this was having an attraction effect in terms of drawing more patients who have these health conditions to the facilities. As mentioned earlier in this report, this issue of attraction is also intertwined with the fact that MSF are currently supplying the relevant drugs free of charge. This attraction of patients has then resulted in more workload for the facilities as more NCD patients move from attending Level 5 facilities to the lower level facilities. At V1, this appeared to have had a knock-on effect in terms of motivation of the mentees because, at the same time they were receiving benefits such as increased competence and confidence, they were not receiving additional monetary benefit and were having to work harder when in the facility due to demand. That said, at V2, most clinical mentees were positive about this increased workload as it said to them that they were doing a good job. In terms of the CHV mentees, in both V1 and V2 interviews, all of the mentees mentioned the issue of payment as being of concern to them. Whilst they did receive a stipend to attend the facilities, they felt that they were making a significant difference to patient education and awareness and that their status merited payment. This perceived status issue was represented by one CHV mentee (V2) who said that his fellow villagers referred to him as "Daktari" (Swahili for 'Doctor') and that, to him, meant that his status merited greater recognition from MSF or MoH in terms of a salary.

A second issue at V1 referred to by mentees, mentors and some MSF staff was the length of the programme. One of the senior MSF staff V1 felt that the mentoring programme might need to be further adapted because he experienced it as a bit "heavy" and "long" given the workload of the clinicians in the facilities who do not only see NCD patients but others also: "*We need to see how we might tailor this to meet the challenges that they face in Embu*". He suggested that the programme could be curtailed in length so that the most important issues were covered but also freeing up the MoH staff to manage their workload (including non NCD cases). As an additional key issue, paperwork was mentioned.

These thoughts and suggested was also supported by some of the mentors at V1 who felt that the programme placed a significant burden on the mentees and who felt that the programme could be amended to ease that burden. Mentor 7 (CHV) quote summarises well as the above-mentioned constraints: "*The timing of the mentorship I feel that it is too long. The programme creates a lot of work which adds to the total workload of the mentee because is now more capable and which attracts more patients to them. Also, there is too much paperwork to complete - filling in the grid, pre-test, post-test, posters etc...*". A number of the mentees agreed with this sentiment about associated burden, citing workload as the main driver for wanting the process to change. At the same time, however, there was also a desire from some mentees to expand the number of conditions covering in the mentoring programme which would presumably increase the paperwork and workload they experience currently.

However, by the time of V2 a decision had been taken to reduce hours associated with modules. Mentors (V2) reported that they used to do two modules for 12 weeks in total which was quite long. They have been encouraged to reduce the number of weeks and they now teach for 12 hours either once or twice weekly and

then have one-to-one sessions twice a week or weekly. The table below shows the number of teaching sessions in hours per cycle and how it has been reduced.

Table 4. Number of teaching sessions (in hours), by type of cadre and cycle. MSF Embu Project, 2017-2020

	Medical team	CHV Team
2017-2019 Mentorship sessions per cycle	44	35
2020 Mentorship sessions per cycle	31	27
No of session reduced by	13	8

This decision appears to have been taken in order to simplify the process and maximise efficiency gains. As a result, the *content* of the sessions for each of the weekly teaching has increased because they have merged topics together to make the cycle shorter. At V1, some thought there was too little content but some of the mentors now think that perhaps there is too much being packed into the modules. Some materials have also been revised to reduce the time taken for delivery. It was expected that this should also take a shorter time to deliver the session because the mentors know exactly what to do and how to do it. However, they are spending longer than the allocated 45 mins for the teaching sessions. This sense of taking longer to do the teaching sessions was corroborated by the direct observations of teaching, all of which ran over the 45 minutes allotted to them.

As a practical level, there were sometimes issues with patients with the appropriate health condition attending the clinic at the appropriate time so that the mentee could learn.

Structural elements of the system. The mentors also felt there were some significant constraints for the mentees related to the structural elements of the system where the mentoring program is taking place, such as understaffing. Mentor 2 (N) V1 commented: *"The facilities are often understaffed so the mentees can become over-worked especially if they have night duties as well. They have to juggle their learning and other nursing duties. They cannot always attend all the teaching sessions"*. This view was supported by Mentor 4 (N) V1 who felt that the mentoring *"creates a greater workload for the mentee which they struggle with. No more staff are being employed and the number of patients is increasing. This could affect their performance"*. Another element is related to the payment of salaries. Mentor 5 (N) also pointed to when salaries are not paid on time which detracts from the motivation of the mentees.

One significant contextual issue, referred to both by mentors and mentees was the transfer of mentees to other facilities. Whilst it was acknowledged that the knowledge would stay with the individual, some felt that the turnover and movement of staff was unhelpful to the mentoring programme overall.

MSF support. For some of the MSF staff V1 on the project the way in which the project was developed and adapted was not sufficiently clear to them at the start of process: *"For me, how I have seen the journey of mentorship, for me it has been a very confusing journey because for me at the start it was not clear how the MSF programme would evolve"*, said one MSF Staff Focus Group member. This was attributed partly to the fact that relatively inexperienced people were brought in to deliver the mentoring training. For one MSF staff member V1 *"it was all a bit of a mess"*. A member of the MSF management team V1 put it this way: *"The challenge was that it was quite new to the mentors and quite new to the MoH staff. The expectations were not matching – they thought of classroom, they thought of payment. That was completely different to what we were going to give. Also, a lot of the MSF office staff are first-missioners who came from MSF-only clinics not from MSF and MoH so there was a lot of misunderstanding at the start"*.

It would have been necessary to understand what was required to support the mentors in their work with the mentees earlier, and some MSF staff felt that that this only really happened once they visited the facilities and the context in which the mentors were working. It was only then some of the MSF support staff properly understood who the mentees were and that it was not just clinical staff but CHVs also. Therefore, a key lesson for them was that the support services needed to be integrated earlier into the mentoring process so that they can properly support the mentors and mentees delivering on the project. As one of the MSF support staff V1 pointed out: "*if [you build capacity], there will be more demand in the facilities which needs more medical supplies*".

Repetition of cycles. One of the challenges highlighted by some of the evaluation stakeholders was the need to repeat cycles of mentoring on certain conditions in some facilities. Some mentors felt that perhaps MSF had left some of the facilities too early. For example Mentor 2 (N) V2 felt that they had left some facilities "*in too much of a hurry*" despite the fact that some mentees had given feedback that they wanted to go over some topics on which they needed more clarity. Mentors felt that they should leave people only when they feel that they are prepared well enough to do the work and when mentors are confident that the people are 'good to go'. For this reason, others felt that the timelines may need to be reviewed and they should only leave when the facility is ready for them to leave. One mentor used the case of insulin, for example to illustrate this point. They had a timeline for completion of this (6 weeks) so they had to cover it very quickly and leave and she was not sure that people had grasped it and had no time to practice. She felt that the concerns of the mentees were not adequately addressed particularly the blood sugar monitoring and that they needed more time on it. That gap in their knowledge and skills is unlikely now to be filled. In her view what is more important is what people have retained and that they should make sure that people are sure about their knowledge by addressing any gaps before they leave. For some, therefore, there have been some repetition of cycles in some of the facilities but there are still some gaps in the knowledge of the mentees that they are unsure will ever be plugged because of the timelines that they need to obey.

What are the main successes/achievements?

Measurable outputs. The mentoring programme has meant that, since 2017, 69 mentees had been enrolled on the programme (40 in the first cycle already finalized and 29 in the second cycle, still ongoing at the time of writing this report). These mentees were developed across 11 facilities within the County region: Kiritiri, Kabuguri, Machanga, Kiambere, Kanja and Kairuri (during the first cycle); Kigumo, Karau, Kibugu and Muchagori (during the second cycle), and Gategi in both cycles. During the first cycle of those 38 mentees, 9 of them have not completed the programme for various reasons such as leaving the facility, illness, or undertaking further medical study. Difference in completion rate by cadre and gender were small and not statistically significant (chi-square test). Of those who had completed the programme, nine are COs, seven were CHVs and 15 are Nurses. Out of the 29 mentees who have been recruited for the second cycle the vast majority were nurses (23), in addition to 4 CHVs and 2 COs. Nine mentors have been recruited and developed by MSF to work with the mentors on the Embu mentoring programme.

Table 5. Mentoring outcomes as measured by completions and knowledge improvement, Cycle 1, MSF Embu Project, 2017-2020

	Enrolled	Completed	Improved knowledge
Clinical Officers	11	9 (82%)	8/9(89%)
Nurses	18	15 (83%)	14/15 (93%)
Community Health Volunteers	9	7 (78%)	7/7(100%)
Total	38	31 (82%)	29/31 (93%)

Better management of patients. The main successes identified by nearly all those in the study was that the mentees had improved their medical competence in dealing with the four health conditions. Mentee 2 (N) V1 stated: *"I can now see a patient and manage them"*. All of the clinical mentees who had seen patients so far supported this sense of competence that the mentoring programme had given them. This was corroborated, for example, by Mentor 1 (N) V1 who made these comments about the mentee achievements on the programme. *"They have become more knowledgeable about NCDs. They are more patient centred and can take good histories and know when to order laboratory tests and carry out good physical examinations of patients"*. He also felt that *"their approach used to be more 'random' rather than understanding the why things happen or should happen in a particular way" and that the mentees can manage emergencies better"*. Mentor 5 V1 felt that mentee exposure *"to new knowledge has meant that they learn about the risk factors, labs, and manage them better referring them upwards only in extreme cases. So, their reputation is improved because patients know that they can manage them better"*.

This claim about better management was strongly supported by the patients in the FGD V1. As Patient 1 V1 put it, *"It is good because of the services I've been receiving. They have changed and got better"*. This was repeated in the V2 patient FGD and mentee interviews with some interviewees reporting how this was resulting in less hospitalisation, less acute episodes for patients, e.g. less asthma attacks or fits. Though these comments about medical outcomes should be treated with caution (these medical outcomes have not been formally evaluated or verified by other means), they do suggest that there may be a wider system impact as a result of the mentoring of the programme.

Mentees confidence. In addition, all mentees (aside from those who left the programme prematurely) asserted that they had experienced an increase in confidence as a result of the mentoring programme. This view was also supported by their managers at County level. Two MoH staff (in a joint interview V1) were strong in their praise for the mentoring programme and its impact. One said: *"Mentees are more confident. The patients' needs are attended to and they are also given knowledge to manage themselves. The system has been strengthened in the 7 facilities. The mentee treats the patients well and manages their drugs better"*. For example, Mentee 2 (N) V1 commented on the impact of MSF's intervention in relation to the four conditions: *"Before I came here, I was not good at managing those conditions. Before they (MSF) came, the patients were not being managed well"*. Mentee 7 (N) V2 also confirmed that he was getting what he had expected from the programme in terms of new knowledge about hypertension and diabetes, thus far, and this has meant that he has been able to deal with clients with those conditions with much more confidence.

Several of the mentees reported that, for them it was important to recognise that patients' expectations had been raised by the better service they have been receiving from the mentees. Some of the mentees at V2 felt that this resulting increase in the number of patients was a benefit rather than a problem for them.

Management at local level. Interviewees responses at both V1 and V2 indicated that the mentoring has also contributed to the capacity of mentees to properly manage the patients at local level, reducing the referral to higher levels only when necessary. Mentor 1 (N) V1 illustrates this: *"Overall, they are better able to manage some conditions that they would previously refer upwards. This has helped to 'decongest' the higher levels"*.

This shift to using the more local facilities was supported by Mentee 4 (N) V2: *"When they come to a facility, we can look after our clients. When they are first of all referred to a higher facility, most of them don't make it to the appointments and opt to buy drugs from the chemists which is not good"*. She explained that this meant that patients were encouraged to buy more drugs than they actually needed as a result, hence it was better for the patients to come to the local facility and get better advice and support in terms of what quantity and quality of drugs they should be taking.

This was also supported by patients. A key issue for several patients was that of having to travel to the Embu Level 5 hospital for treatment and drugs in the past. For Patient 2, who has asthma, the travel to Embu was seriously debilitating to her condition because she was unable to walk due to distance and had to ride on a motorbike. The motorbike ride exacerbated her condition. As she was now able to get treatment at a more local facility, due to the expertise of the mentees in the facility, her health has improved, and she needs less appointments and referrals than before.

Patient 4's V1 mother who attended the focus group also told a similar story of how referral to Level 5 did not seem to make a difference and that was too much time between appointments. Once she was seen by mentees at her local facility, the management of her daughter's condition became much more regular and effective. Patient 2 V2 also told a similar story that, after seeing staff at the facility, her acute episodes of illness were much less frequent.

Patients education. All patients (V1 and V2) agreed that a key benefit of the intervention was that they were now better educated about their own health condition and were able to influence it in some cases through lifestyle choices. This was particularly the case with one V1 hypertensive patient who, through lower intake of salt etc had, with the mentees' help, reduced their medication from 4 drugs to 1 over a short period of time and managed to stabilise his blood pressure. Mentor 2 (N) V1 also confirmed the benefit of this broader patient education function: *"It has resulted in patients becoming empowered with better knowledge about their health so that they can manage themselves better. In the past they would often stop taking their medication when they felt better. They appreciate better the importance of following their treatment which leads to improved health. So, it has brought about change"*.

Mentoring programme's popularity. Another achievement was the perceived popularity of the mentoring programme amongst MoH staff. The scheme's popularity is supported by a senior MoH County official V2 who said: *"Even people in other facilities are coming to me and saying: Why can't MSF come to our facility?"* She described prospective mentees in Embu County facilities as being 'eager' to be part of the programme which she felt was not the case at V1 because of the relative lack of understanding of the mentoring process amongst MoH staff. Mentors and mentees from V2 also felt that the scheme was popular amongst staff.

What can be done to improve its implementation?

The first field visit helped to identify numerous things that would be helpful to include when implementing the mentoring programme in the new cycle. They were included as suggestions for improvement in the interim evaluation report and reassessed during V2. They are presented below, together with their update during the second cycle.

Involving MSF support staff. In the MSF staff focus group at V1, some of the staff felt that it was important to ensure that all support services were brought on board early to ensure that they were able to support the mentors in their work. This included things like involving pharmacy staff and data management staff so that they could properly anticipate any increases in demand that might result from MSF's intervention in the facilities. Some of the MSF support staff reported that they were initially confused about the mentoring and its impact at the early stages of the project. It may be helpful to provide a regular brief to all staff about what will happen and when, to enable them to properly support the work that is being done.

This greater degree of involvement was the focus of one of the recommendations in the interim report. At V2, it was clear that this has been acted upon and improved. All MSF staff seemed clear about the purpose of the mentoring programme, how it worked and what was involved. Furthermore, in the facilities, as more members

of the facilities were invited to attend the teaching sessions, this appeared to have enabled a broader understanding across the new facilities of how NCD patients need to be treated and supported. This view was supported by all mentors in their V2 individuals interviews as well as in their V2 focus group comments, as well as by some of the V2 mentees in their individual interviews.

Career development. Due to the focus on bridging the knowledge gap within the facilities, it seemed as though mentors and mentees were very focused on the content of the learning and the competences required to implement it. What appeared to be missing was a focus on the career development of the individual mentee and giving them a sense of ownership as to where they wanted to move to in terms of their development. If mentors were to place more emphasis on the mentee themselves taking ownership of their career development and what they needed to learn, this might have the impact of (a) enhancing mentee motivation and retention, and (b) give mentors valuable feedback in terms of where the next knowledge gap might be and how this might be filled.

In the interim report, this suggestion was made. However, some concern was expressed that this would raise expectations of mentees that the MoH would fund and support any requests for future development. Furthermore, some questions were raised as to whether there is space and time to do this. Whilst these concerns were acknowledged and recognised by the evaluation team, it was clarified that the suggestion improvement was designed to confirm to the mentees that they themselves needed to take a proactive role in their own development, rather than raising any expectations that MoH would provide anything to them. In terms of time this needed, it is suggested not to take up significant portions of contact time between mentors and mentees. Rather, it is suggested that the mentor asks the mentee questions within their one-to-one sessions such as: "How do you think you will use this knowledge going forwards?"; "What do you think you will do differently in the future?". It is envisaged that these questions could be included in some of the debriefing sessions that mentors have with the mentees and need not monopolise the whole session or crowd out any learning of medical skills or procedures.

Expand mentees reach. Many of the mentees and other mentors at V1 considered that the programme needed to expand its reach. Most of the V1 mentees felt that in order to deal with the workload pressures that come with the increased expectations from patients, that more staff needs to be developed. A very common comment made by all the V1 mentees, was that they felt that it was important to train all the staff at the facilities. Mentee 5 (CO)'s comment was representative of this sentiment: "*The mentoring would be better if we could train everyone in the facility!*". As with Mentee 5 (CO), this comment was often made with an element of humour, indicating that they understood that resourcing this level of training would be problematic. Whilst expanding one-to-one support to all staff in all facilities would indeed be likely to be unachievable, one possibility could be to use group interventions by mentors in order to expand the reach and effect of the mentors on more people within each facility.

However, again, this suggestion must have been taken on board in terms of the teaching sessions being expanded to include everyone in each facility who is able to join them. Whilst some concerns still remain about the teaching approach (discussed above), this extension has meant that there was evidence of more reach for the mentors via the expanded teaching, rather than more reach for the mentees. In addition, expanding the number of mentees who are supported, via the ToT process, to communicate their NCD knowledge to others (in larger facilities) will also expand the reach of the mentees in addition.

In addition, at V1 there were two main challenges that needed some attention related to the associated burden of developing as a mentee, and the broader challenging work context that mentees were facing.

Addressing length and workload. As mentioned above, mentees had several challenges to face in engaging with the mentoring programme, i.e. increased workload due to NCD patient expertise, the length of commitment required to complete the intervention and the requirement to complete paperwork (for both mentors and mentees).

In terms of dealing with the length of the programme, it has been possible - particularly with hypertension and diabetes to combine some of the sessions and content hence compressing some of the weekly learning agendas as identified in the WOG. This has meant that certain behaviours can be evidenced within the same sessions. This view was supported by the practical application of this learning within the clinical setting as observed in the mentoring sessions with patients at V2. Many of the patients presented with hypertension and diabetes combined, and this required the mentee to be able integrate the two in terms of their working with the patient. This has enabled the programme to be curtailed in terms of overall duration as well as removing some unnecessary duplication of paperwork.

As argued earlier on in this report, one of the challenges that comes with MSF going into a facility is the attraction effect to patients, hence increasing the volume of patients significantly. At V1, some mentees reported that there was a tendency for others in the facility (non-mentees) to leave NCD patients to them and their mentors to deal with them, sometimes resulting in a backlog of patients. However, this complaint was not present in the mentee interviews at V2. Perhaps this was due to, better communication about the purpose and intent of the mentoring scheme to the non-mentee staff in the facility plus their inclusion in the teaching sessions.

More staff and CHV payment. The impact of the work context in the facilities needs to be recognised as a challenge to the mentoring programme. According to the interviews and focus groups at V1, this manifested itself in two main ways. Firstly, all mentoring participants at V1 reported the challenge of being understaffed in their relevant facilities. Whilst there was more positivity about the current situation at V2, MoH understaffing was still an issue for some at V2. Whilst it is clearly beyond the scope of this evaluation to influence staffing levels within the facilities, again there is perhaps a communication solution to this issue. Based on interviews with MoH staff at V1 and V2, the increase in demand (described above) is recognised. It may help implementation if the case for recruiting more staff to meet that demand and the resultant influence on the broader systems, e.g. Level 5 can be quantified and communicated. However, there is clearly a limit to how much MSF can influence these issues. Similarly, a very common issue raised by all CHVs interviewed was the issue of payment. This was the case at V1 and V2. All of them believed (and this was supported by the mentors) that the lack of payment other than expenses was detrimental to the implementation of the mentoring programme. Whilst it is probably beyond the scope of the evaluation to address such issues directly, it might nevertheless be argued that, if CHV mentees receive mentoring which helps them focus on their long-term careers, this may positively influence their engagement and involvement with NCDs as they may see a connection with the possibility of paid work in the future.

POSSIBLE CLASSIFICATION OF MENTORING

MSF SAMU's clinical mentoring framework is built around the following definition of mentoring:

"Mentoring is a personal learning relationship outside of hierarchies and operations. A mentor (an experienced person) allows a mentee (a less experienced person) to gain and develop knowledge, abilities, and maturity in a specific position or a professional area that they share."

A key question to consider is the extent to which the process applied in Embu can be seen as a mentoring initiative in the strictest sense of the term. It is difficult to argue that the mentoring relationships within the Embu mentoring project lie outside of hierarchies and operations. Whilst it is true that the mentors were not the line managers of the mentees, all the mentees saw the mentors in a power relationship in relation to themselves. This was because (a) the mentor was a more experienced practitioner with greater medical knowledge and expertise in NCDs in particular, and (b) the mentor was formally responsible for assessing their performance. This is not to say that the mentoring relationships were fraught with difficulty and tension – on the contrary. All mentees interviewed at V1 and V2 reported that they had strong and productive relationships with their mentors. Nevertheless, it was apparent at V1 that mentees were very aware of being assessed and this influences the extent to which the Embu mentoring model can be said to be mentoring. At V2, discussion of being assessed was less present in the mentee interviews, although this may have been because the V2 mentees were at a much earlier stage than the V1 mentees were when they were interviewed. As Garvey et al¹¹ have argued, power often manifests itself in the extent to which mentees are prepared to talk about their own failings or weakness and to take ownership of their own careers. Whilst there was strong evidence of mentors and mentees having discussions about gaps in the mentees' knowledge and what they might need to go and learn about, there was relatively little evidence of mentees talking about their own development needs in relation to their long-term careers. Due to these factors, the extent to which the CM model in operation in Embu might be termed a 'pure' mentoring programme is a matter of debate. The responses, discussed above, of the various stakeholders, together with the objective scores of mentee performance attest to the efficacy of the intervention as a learning and teaching model, which is appropriate to its context. However, evaluating it purely in terms of a CM programme may be too simplistic.

A common definition of mentoring was developed by Clutterbuck & Megginson¹² who described it as:

"Off-line help by one person to another in making significant transitions in knowledge, work or thinking."

Offline in this definition refers to the absence of a line management relationship between mentors and mentees. The mentors are clearly not being asked or required to act as formal line managers in this project. However, as discussed above, the mentors are nevertheless in a position of power within the relationship with their mentees due to their role as teachers and assessors of medical competence. Nevertheless, they are also, as per the above definition, helping the mentees make significant transitions in knowledge and work. The various stakeholders – MoH officials, MSF and MoH employed staff - have worked together to make the programme happen and that it seems to have yielded some successes. The MSF Mentoring Framework proposes an equal, non-hierarchical adult-to-adult relationship between mentor and mentee. Therefore, in terms of core principles, it is reasonable to argue that the model of mentoring proposed in the MSF CM Program Guide has slightly more in common with DM than CM. However, the reality of working in a clinical context means that the mentors are required to (a) teach the appropriate medical knowledge and theories about the four conditions and (b) assess the mentees' competence against the three baseline competences (see below) of knowledge, practical skills, and attitude. Hence, through the dual mechanisms of teaching and assessment, the power that the mentor has over the mentees' career progression has a significant influence on the relationship. As mentioned above, very few mentees in either V1 or V2 reported discussing their career progression or their own ownership of their learning as such.

Furthermore, the observations of both the mentoring sessions with patients and the teaching sessions support the view that the mentor has a significant role and influence on how both are conducted. In terms of the teaching sessions, they are almost entirely dominated by the mentors delivering them and the mentee/attendee role is principally limited to that of recipient of the knowledge being transmitted by the mentors. However, it is important to note that this comment is not intended as a criticism of the mentors and their motivations. On the contrary, all mentors seem to be well motivated in terms of their desire to develop

¹¹ Garvey, B. Stokes, P. and Megginson, D. (2018) 'Coaching and Mentoring Theory & Practice', 3rd Edition, London: Sage.

¹² Clutterbuck, D. and Megginson, D. (1999) 'Mentoring Executives & Directors', Oxford, UK: Butterworth-Heinemann.

capacity in their mentees. Nevertheless, they are, ultimately, clinicians or practicing health professionals as opposed to being trained learning and development professionals. Hence, it is likely that they are drawing on their own experiences of being taught to inform their own teaching practice, perhaps from school or university. However, as Garvey et al¹³ point out, mentoring has its roots in adult development models, like Knowles's¹⁴ of *andragogy* (working with adults) rather than those used with children or young people, which are pedagogically informed. Andragogy is a working theory of learning with adults which places significant emphasis on using the existing knowledge, experience and understanding of the adult learner to inform what is studied and how it is studied. Pedagogy is informed by the studies and research of writers such as Piaget¹⁵, who was one of the seminal writers on early years development of children and which focuses much less on any existing knowledge, experience or competence that the learner may have. That said, the main strength that the Embu mentoring process has is that mentees have the chance, very quickly after cognitive learning has taken place in the teaching session, to apply their new knowledge to existing real-world medical problems in the shape of the patients that they see with their mentors. Critical to that model of learning and teaching, however, is the importance of moving between theory and practice as modelled by another prominent writer in learning and development, David Kolb. Kolb's¹⁶ model of *experiential learning* – which is arguably what is happening in the Embu mentoring process – relies on a cycle of learning that moves from experience, through to reflection on that experience, through to theorising about that experience and then implementing that theory in practice. This latter theorising stage is critically important as it is there that the mentees in the programme get to consciously formulate what they need to do to be more effective with NCD patients with the four conditions before then implementing this into practice. It is therefore very important that mentees are encouraged to articulate those theories for themselves in collaboration with their mentors so that the mentors can assess the extent to which they have learnt the lessons that were intended and challenge if they were not.

In summary, it is more accurate to argue that the MSF mentors and team have developed a learning and teaching methodology that has a mentoring component to it and requires mentoring skills to deliver. In this sense, terming it a mentoring process and assessing it solely as a mentoring scheme does not seem plausible. It has therefore been more appropriate to evaluate the process as a learning and teaching methodology that is taking place within a specific context, where the learners have particular needs and experiences. Comparing the approach with the two models of mentoring (CM and DM) discussed previously, this learning and teaching methodology seems to be more akin to CM than DM, despite some of the MSF CM Program Guide seeming to propose a more DM approach at times. However, the key to the perceived success of the intervention is the new knowledge and skills that have been transferred to the mentees from the mentors about the treatment of NCDs.

Note on Additional Issues to Be Explored

In the working session with evaluation consultation group members, following V1, other issues were raised by the working group which were not anticipated in the evaluation question design prior to the first visit. These issues were simplification, length and investment benchmark, proxy indicators, and repetition of cycles. These will be dealt with in turn here.

Simplification. This was raised by the working group in response to concerns raised about unnecessary bureaucracy at V1 as well as the need to simplify the mentoring process down to its 'minimal elements' so as to be able to implement it elsewhere. As argued earlier in this report, there is evidence that the mentor team

¹³ Garvey, Stokes & Megginson (2018) *Coaching and Mentoring: Theory & Practice*, London Sage.

¹⁴ Knowles, M. S. (1970, 1980) *The Modern Practice of Adult Education. Andragogy versus pedagogy*, Englewood Cliffs: Prentice Hall/Cambridge

¹⁵ Wadsworth, B. J. (1996). *Piaget's theory of cognitive and affective development: Foundations of constructivism* (5th ed.). Longman Publishing.

¹⁶ Kolb, D.A. (1984) *Experiential learning: Experience as the source of learning and development* Prentice Hall, Englewood Cliffs, NJ.

have taken steps to deal with the bureaucracy and duplication issues by, for example, combining diabetes and hypertension modules together and shortening the length of the programme so that it is more efficient. Turning to the distillation of key elements of mentoring, as argued above in the enabling factors section, above, there are certain key elements which tend to make success more likely: clear purpose, credibility of mentors, availability of mentors and clear understanding of the motivations of key stakeholders. By engaging in the early cultivation of a strong working relationship with County MoH officials and engaging with mentors to develop them at the beginning of the process, this served to enable the Embu project team to clarify scheme purpose, ensure that mentors are credible practitioners and are available in the chosen facilities and worked at the embedment stage to understand the needs of all stakeholders. These elements could be usefully taken forward as will be argued below.

Length and investment benchmark. This issue concerned on exploring the timing of the mentoring process, and its HR cost implications which was raised by the working group in order to identify how much time and investment is required for mentoring. Whilst it is possible to make some comments about timing and key success factors, it can nevertheless be challenging to generalise from one context to another in terms of mentoring. For example, one of the enabling factors in the Embu context was the relatively stable political context in the County. This political stability is probably not something that MSF could implement nor replicate elsewhere. Also, without data on the impact on mortality rates and such (see below), it is difficult to make specific prescriptions as to what an appropriate cost would be, as this would involve making a cost-benefit calculation without having data on the benefits. However, based on data from V1 and V2, it is interesting to note that the advent of the nurses' strike in the early stages of the project did mean that the mentors spent more time on developing the taught materials, giving them greater confidence in the messages that they were putting across to the mentees. The implication was that this preparation time was more important than it had at first been envisaged. Based on the experience of the evaluator, the timing of mentoring in a project is critical. For example, it is important that mentor process training is timed so that mentors can practice their mentoring skills quickly in a real context. Otherwise, there is a risk in terms of them retaining that knowledge and becoming frustrated in their efforts to use that new knowledge of the process to improve the medical competence of their mentees. What V1 data suggested was that, when the mentoring first started, the communications to MSF staff and to other staff in the facilities was not sufficiently effective in helping them to understand the place of mentoring in the wider Embu project. Hence, there is an issue of the readiness of a system to be able make best use of mentoring once it is implemented, and recognising the importance of upfront investment of time and communication for the programme to be more cost-efficient and successful further down the line.

Proxy indicators. As acknowledged in the working session, measuring the impact of mentoring itself is always going to be difficult, which is the case for a lot of social science research. In the specific case of Embu, it may be possible to ascribe some success to the mentoring programme based on reported increases in patients to the chosen facilities (this calculation is beyond the scope of this evaluation) but this would be difficult to separate out from the effect of having free available drugs in the facilities, i.e. more patients may be attending clinic due to free drugs rather than improved medical competence of health care staff. Proximate measures for the sustainability of the mentoring programme could be, as discussed in the report, whether accreditation exists for mentees, to what extent other facilities want to be involved and initiatives such as the ToT programme. All of these might indicate that MoH are prepared to continue the mentoring programme once MSF leaves. Conversely, proxies for the empowerment of patients via mentoring may be that patients make lifestyle changes, which then mean that they attend their designated facility less due to successful management of their own NCD. Data from V1 and V2 patient focus groups both indicated that patients were experiencing a different sort of relationship with mentees from the health care they experienced prior to MSF being involved in the facility. However, it was difficult, at times, to ascertain from them what was different about their health care in terms of the difference that mentoring made to that. Based on the observations of mentoring with patients as well as mentor and mentee interviews, one proxy measure of successful mentoring

might be the degree to which mentees take the lead in NCD-patient consultations. Fundamental to this behavioural indicator is the motivation and confidence to act accordingly.

Repetition of cycles. This issue was raised by the working group and was mentioned by some of the interviewees in V2. The concern was that repeating of cycles in facilities was costly and that there was a significant opportunity cost in doing so and that this should be avoided where possible. Whilst there was some support for the idea that the repetition was disruptive, it was also recognised that in some cases it presented an opportunity to make sure that the knowledge was fully embedded in the facility and militated against a sense that for some MSF had exited too early.

CONCLUSIONS

In summary, the mentoring programme in Embu County is working well as an effective learning and teaching model. It appears to be adding to MoH capacity in level 2 and 3 facilities in terms of staff being able to deal effectively with NCDs. This view is corroborated by the mentors, mentees, MSF staff and patients as well as MoH officials looking at its systemic impact. This view has also been supported by direct observation of mentoring sessions with patients and of teaching sessions as V2. It must be said, however, that these views and observations have not been corroborated by medical data, as this is out of the scope of this evaluation.

An initial concern was that the mentoring model being proposed was more Eurocentric and would need considerable adaptation to work in a sub-Saharan African context. However, there was little evidence to support this view from both visits conducted. This seems to be because those implementing the process were themselves Kenyan and fully embedded in the Embu context. Furthermore, because the MoH at Embu County level were involved in the project from the outset, there appears to have been little resistance to the idea or to the programme. Also, because the mentors had time to work on the materials and the process before implementation, there is evidence to suggest that the approach has been adapted to deal with the field constraints that the mentors and mentees face. That said, as has been argued above, the teaching approach used does seem to be routed in traditional pedagogical approaches that Kenyan national MSF staff might be used to receiving themselves. Hence, it can be argued that there were some differences between the model of mentoring espoused in the SAMU mentoring materials and the way in which the teaching materials were delivered. Nevertheless, there does seem to be evidence supporting some successful transfer of medical knowledge and skills.

That is not to suggest that the initial implementation was without its problems. A national strike of medical staff did not help with the implementation (although, ironically, may have helped in terms of giving more time to preparation!). Furthermore, the turnover of mentees in the first cycle due to either personal issues of ill health or being transferred to non-MSF facilities has meant that not as many mentees have been fully developed as would have been hoped. However, data collected from V2 suggest that key lessons have been learnt in terms of the implementation of the process within the new facilities.

One of the main questions posed in the evaluation was whether the mentees' medical competence was enhanced as a result. The answer to this seems to be a clear yes based mainly on data from the first visit. Because V2 was conducted much earlier in the learning cycle, it is not possible yet to assess whether the same impact is happening using objective scores, because they are currently incomplete for this cycle. However, the qualitative data does seem to support a similar conclusion for the new facilities so far. However, what is slightly less clear is whether this outcome might have been achieved by simply offering teaching and observation sessions on mentees' practice. Hence, any ultimate conclusions drawn on the effectiveness of the mentoring programme needs to recognise what the alternative approaches might be and whether they would have achieved better or similar outcomes. Clearly, it is beyond the scope of this evaluation to conduct a comparative analysis of mentoring compared with other approaches.

A second important question was how the mentoring process was being implemented in Embu and whether this was enabling the process to be as effective as it might be. It is clear, as suggested above, that there have been some challenges regarding implementation earlier in the programme's history. However, it is also clear that some lessons have been learnt in terms of how best to implement mentoring in new facilities. Two key factors seem to be *preparation* and *involvement*. The extensive preparation of the teaching materials and how the mentees' progress needs to be assessed seems to be critical. The Embu team seem to have recognised that it is important that the knowledge and process of teaching needs to be thought through and adapted to recognise the context that many of the MoH staff face when learning new material, e.g. competing priorities

in terms of different patients, volume of work, impact of working nights on ability to learn, and have adapted their processes accordingly. Between V1 and V2, it is clear that further thinking and action has been undertaken to try and address some of the challenges and learn from the programme's initial cycle in terms of addressing volume of work and further refining the programme to fit better with its context. Secondly, it is also clear that, when all stakeholders are involved in the process, the operationalisation runs more smoothly.

However, what has yet to be fully addressed is how to move the embedment of this learning process forward and ensure that it is sustainable if or when MSF leaves the County. Whilst MoH officials have confirmed that they will put the appropriate measures in place should this happen, it is important to consider how the mentoring process itself might be sustained and its reach improved. Many of the mentees, in both visits talked particularly about how they were noticing a wider impact of their new knowledge, skills, and attitude with their patients primarily – but also with their colleagues and with the broader community. Albeit clearly part of the CHV mentees' roles, the clinical mentees did not seem to have previously recognised their potential impact in this way. It is clear that some steps have already been taken in order to do this by involving more people in each facility and the creation of ToT interventions. However, it seems reasonable to suggest that, going forward, mentors and mentees might need further development to understand how they can strengthen this broader reach.

Firstly, it's important to give mentors some additional tools and processes so that they can affect more staff in the facilities. Several mentors reported how non-mentee staff are now invited to teaching sessions, but it did seem as though the principal mechanism for developing skills and attitudes was in patient consultations and in one-to-one sessions following those patient consultations. Hence, non-mentee MoH staff did not get the benefit of hearing how mentees applied their knowledge to actual patient cases. Furthermore, in the teaching sessions there was relatively little if any evidence of participants bringing their own experience into those sessions. Hence, it was suggested in the interim report that, by running Action Learning Sets¹⁷ with 6-8 people, mentors could encourage greater applied group learning around application of medical knowledge and encourage participants to learn from each other as they collectively examine group cases. When this was originally suggested, again some concern was raised as to how this might be enacted and whether there would be sufficient time in the mentoring process to enable this sort of interaction and whether it would get in the way of transmitting the new knowledge. However, most of the clinical mentors in their one-to-one interview saw the merit of seeking to incorporate this into the teaching methodology. Whilst there is some evidence of this already happening with CHV mentees, this could be formalised and given as an offer to facilities. Sets could be made up of mentees and non-mentees which would expand the reach of the applied learning and insights gained.

In addition, mentees could be encouraged to via their mentors acting as role models, with patients, to educate the patients as to how to better take of themselves via lifestyle changes etc. Again, this is part of the CHV role but might be done within patient consultations using mentoring skills and questioning or listening techniques drawn from CM models. For example, mentees might be encouraged to say to patients "What will you do next to get yourself better?" hence communicating some measure of responsibility to the patients. At present, the impression given from the mentors and mentees is that all of the health care professionals are operating in an 'expert' role which can perpetuate a dependency relationship between patient and health care professional where the latter is expected to 'fix' the patient by dispensing drugs. This was certainly confirmed in the observations of clinical mentoring sessions where, at the beginning of the sessions, some patients did not seem to be completely clear why they were there and what their medical condition actually was. However, there was also some evidence in those sessions of the mentees seeking to educate their patients in terms of

¹⁷ An Action Learning set is a group of colleagues/ peers who choose to work together, often with a facilitator, to reflect on actions they have taken or are going to take. Each individual in the group is given a slot within which each person is helped by the group to work on their issue. All group members are invited to reflect on what learning comes out for them from each of the sessions.

their own conditions and seeking to increase the patients' ownership of themselves in terms of lifestyle choices. Similarly, in the patient focus group V2, there was evidence of increasing patient awareness of their conditions and their ownership of them. In the current system, patients are used to seeing the mentees – their health care professionals within the facilities – as being the experts who tell them what to do and who make decisions about their care going forward. Patients are not used to playing a more active role in their diagnosis and treatment. In a similar way, mentees are used to a certain way of operating with their patients and learning new knowledge. At their core, mentoring relationships work best when relationship between the pair is adult-to-adult, as described in the MSF Clinical Mentoring Program Guide.

Finally, although there has clearly been some development in the medical competence of the mentees, there was little evidence that the mentees, in the spirit of both DM and CM, have been encouraged to take responsibility for thinking how their own careers might develop and what they themselves might do to develop them. When debriefs were observed in V2 following the mentoring sessions, they were very much focused on the medical aspects and seem to be driven by the mentor summarising the issues or learning from the session. They were also quite brief in nature. This is perhaps because the focus and purpose of the scheme in terms of competence development has been very clearly communicated by the scheme organisers. However, in terms of sustainability of a learning and development ethos within the facilities, it would help if the mentors were encouraged to set some time aside during the mentoring process to pay attention to the mentees' developments and highlighting to the mentee their responsibilities in that. This could be done simply by asking mentees what they had learnt from the preceding session(s) and how they would do things differently with future patients.

These conclusions then lead to the following recommendations.

RECOMMENDATIONS

As a result of the interim findings and conclusions from V1, five interim recommendations were put forward to the programme team for consideration. These are re-examined here, and additional recommendations and comments are also offered.

⇒ **Recommendation 1: Train and develop mentors in teaching skills to help diffuse knowledge more widely.**

It is recommended that mentors are developed in their ability to teach professional adults by drawing on the experiences of group members within the teaching sessions. In practice, this would mean delivering the new knowledge in a different way by having an input as is currently done but then giving each participant a slot where they reflect on a previous patient they have had. Each participant might then learn about NCDs by working through that case, with support from the mentors and from the group. This in turn would encourage mentees to be more involved and engaged with the teaching sessions and maximise the chances of being able to apply these with clients.

(The original interim recommendation was that mentors should be developed to run action learning sets which would enable them to work with a group of 6-8 people and encouraging them to share experiences and challenges that they have with NCD patients. However, following the changes made to those who are included in the teaching sessions, this recommendation has been refined.)

⇒ **Recommendation 2: Encourage mentors to give mentees more responsibility for their own learning and development.**

It is recommended that mentors make a point of asking DM questions in their existing mentoring conversations e.g. 'What will you do differently in the future?'; 'What actions will you take to develop your understanding of 'x' further?'. By regularly creating a small amount of space within the existing mentoring relationship for longer term learning, mentors could encourage mentees to take more ownership of their own learning and development as opposed to relying on MSF or MoH to do this thinking for them. This might be supported by engaging in regular review of the approaches and methods used in the programme, which involves all stakeholders and participants - as a result, more ownership and responsibility for the learning process might be developed.

(The original interim recommendation placed the emphasis on the mentee's long-term career development. However, this seemed to raise some concerns within MSF in terms of unduly raising expectations about MoH support as well as where the space for this would come. Hence, this recommendation has been refined.)

Recommendations 3-5(of 7) →

⇒ **Recommendation 3: Continue to involve the wider MSF team and broader support functions in facilities in the mentoring programme.**

By continuing to recognise the importance and role that the wider MSF team and broader support functions play, it could be possible to identify bottlenecks or synergies in the delivery pattern so that challenges, e.g. shortage of available drugs or staff might be anticipated. This could be done by involving key representatives of these functions in mentor team meetings and involving broader services, e.g. pharmacy in the mentoring programme itself.

(This recommendation was in the interim report. It was clear at V2 that this recommendation was already being acted on, hence the suggestion here is to continue that work.)

⇒ **Recommendation 4: Provide support to mentees so that they can share their new skills and knowledge more widely in the facilities.**

By offering some support to mentees in terms of either (a) becoming mentors themselves (within their facilities rather than through MSF) or (b) becoming more effective disseminators of medical knowledge, through a ToT approach, it may be possible to embed the knowledge more deeply and widely within the facilities. This could be an additional offer to mentees as part of their development and included in the application process to be mentored.

(This recommendation was in the interim report and still stands in this final report.)

⇒ **Recommendation 5: Create “NCD Champions” within facilities.**

It is suggested that MSF work with MoH management staff in each facility to create a role of *NCD Champion*. This person would be responsible for encouraging the dissemination of new knowledge about NCDs as well as disseminating new knowledge or updates to protocols about the relevant NCDs. This need not be a new formal post but rather a designated role that an existing mentee might be able to take on. The purpose of this role would be to create a focal point within each facility for MoH to disseminate information to and provide a connection within each facility for NCD coordinators within MoH. This would have the dual effect of complementing the embedment of the new knowledge from the mentoring process within each facility and increase understanding of NCDs independently of the mentoring process.

(This recommendation was added after V2 and is linked to, but separated from, Recommendation 4.)

Recommendations 6-7(of 7) →

⇒ **Recommendation 6: Explore the possibility of accreditation for mentors and mentees at divisional/national level.**

Having formal recognition of the mentoring programme by NCD functions at national level would help embed the programme within MoH facilities and enable mentors and mentees to gain some credibility and transferability of their skills and knowledge to other facilities, and even other counties. It is important to consider what is being accredited, i.e. new medical knowledge and/or mentoring skills, as well as who or what might be accredited, i.e. mentors, mentees, and/or facilities.

(This recommendation was added after V2.)

⇒ **Recommendation 7: Encourage mentees to work with patients in a mentoring way.**

One of the key parts of the skill sets in the mentoring programme is *attitude*. This refers to the relationship that mentees create with their patients. It is recommended that the mentor as they work with the mentee, try to use that relationship as a resource for demonstrating how mentees should operate with their NCD patients. In their feedback to mentees, mentors could encourage mentees to notice the parallel between how their mentor treats them when trying to learn about the NCDs and how they might seek to educate and develop the patients in their conditions. This would have the impact of empowering both the mentees and the patients as learners. This could be included in the Embu mentoring materials and built into the existing programme.

(This recommendation was in the interim report and still stands in this final report.)

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Médecins Sans Frontières

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