Improving human resources for health in Mali

**Background**

- Explain the most salient problems / challenges in providing good quality human resources for the primary health care system of the country (as per work package 2 results)
- Explain the rationale and the background of the intervention and how this will address these problems and challenges.
- Situate the intervention within the literature: what is already known about (the effectiveness of) this intervention.
- Situate the intervention within the results from Work Package 2 (literature review on availability of health workers; participatory research with stakeholders, confidential enquiry, migrant health workers interviews...).
- How will the results of this intervention be linked to the general HURAPRIM objectives?
- Aims and objectives of the intervention study

The literature review has shown that there is understaffing in the health system in Mali, and this is greatest in the Centres de Santé Communautaires (CSCOMs) at the base of the health care system. However there is little published literature on the quality of health care. Our confidential enquiry on maternal and child deaths has revealed that quality of human resources for health may be even more important than quantity. It has also transpired that the process of the confidential enquiry itself is a useful way of effecting improvement in quality of health care. The specific cases each reveal a number of avoidable factors and led to a number of recommendations, some of which have already been implemented. The fact that the confidential enquiry is going on is an incentive for health workers to take greater care in their management of patients, and the panel meetings are a form of continuing professional development (CPD) for those who attend. Many of the recommendations were on the theme of CPD and supervision for health workers at all levels, including the informal sector (traditional and private practitioners). The literature review has also shown that lack of CPD is one contributor to demotivation of health workers, and one successful intervention in Mali has used regular CPD meetings as a way of ongoing support and supervision for doctors in rural areas[1, 2].

The aim of the intervention study is to refine and evaluate the confidential enquiry process into a tool which can be scaled up and used both to improve quality of human resources and to prioritise and advocate for more human resources in areas which are in greatest need. The process of facility-based death audits has already been studied in a randomised controlled trial [3] for reducing maternal mortality. However its impact on reducing child deaths at the community level has never been tested. The process will include a strong element of dissemination of results at all levels from the community to health workers, politicians and policy makers.
At the grand committee meetings in Finkolo and Kolokani, there was broad support for the confidential enquiry process and local leaders were interested in the results. The representative of the Mayor of Massantola asked the study team to feed back the results of the confidential enquiry from village to village. We now wish to develop a process of dissemination of the results of the confidential enquiry at all levels in the community and health system. For health workers this would form a regular “CPD” meeting. We also wish to assess the feasibility of scaling up the confidential enquiry into a tool to inform decision-making about allocation of human (and other) resources at the district level.

The specific objectives are:

5. To refine the confidential enquiry process into a tool which can be scaled up to district and national levels

6. To develop a mechanism for dissemination of results and recommendations at all levels, within regular CPD meetings in the case of health workers.

7. To develop and implement a way of improving the functioning of health unit management committees (ASACOs).

8. To evaluate the impact of these interventions on perinatal and child mortality.

**Intervention**

*Give a clear description of the intervention and the context and setting where the intervention will be implemented.*

The confidential enquiry process has so far been piloted in three “aires de santé” in Mali: Massantola and Sabougou (Kolokani district) and Finkolo (Sikasso district). It has not yet included widespread dissemination. We plan to continue the enquiry in these three areas, and scale up to include 1-2 further “aires de santé” in Kolokani district and in Sikasso district. In consultation with the District Medical Officer and local health workers, we have chosen to expand to Didiéni (Kolokani district), Mandela and Kaboila (Sikasso district).

In each of these “aires” we will scale up the process already started (as per the existing protocol). A fieldworker will be assigned to each “aire” (each fieldworker will be assigned 3 “aires”) and will build links with “relais”, such that all perinatal, child (under 5 years) and maternal deaths are reported to the relevant fieldworker. We will restrict the enquiry on maternal deaths to those originating from the included aires de santé but will expand the perinatal enquiry to include stillbirths as well as neonatal deaths (because these are more common on this level and are a better measure of quality of obstetric care).
Death reporting and recording will start simultaneously in all included “aires de santé” as soon as possible (ideally from August 2012). Systems are already in place for reporting deaths in Didiéni (organised by a local NGO), and are being developed in Sikasso district.

However the investigation of each death will be phased in more gradually for two reasons. Firstly for logistical reasons it will be difficult to scale up immediately from 1-2 to three “aires de santé” in each district. Secondly in order to estimate the impact of the confidential enquiry on child mortality, we need a period of death reporting prior to the introduction of the enquiry. We will plan to phase in the enquiry to one new “aire de santé” over the next 6 months from September 2012.

When the confidential enquiry begins in a particular “aire”, each included death will be investigated by a fieldworker using interviews with families, health workers and reviews of medical records. All this information will be compiled and presented at a monthly panel review meeting, either at the CSCOM or at the Centre de Santé de Référence. A health educator (nurse or doctor) will be employed full-time to coordinate and run the confidential enquiry. Their role will be to provide support to the fieldworkers, to provide external input to all the panel meetings, and to organise and run the dissemination sessions.

Dissemination of results is planned to take place at regular meetings to be organised at several different levels:

- Villagers: The fieldworkers will visit each major village in the existing study areas to feed back the results of the confidential enquiry to date, and to pass on the key recommendations addressed to families. A few illustrative case histories (anonymised) will be used as the basis for discussion. Villagers will be invited to propose and discuss how they will be able to act on the recommendations.

- TBAs: Aidemet will organise an information and organisation workshop in Kolokani district, and supervision meetings (see separate protocol). Traditional healers: The Département de Médecine Traditionnelle will organise a training workshop for traditional healers in the study areas (and if possible for about 50% of the aires de santé in each district). This will involve discussion of anonymised cases from the confidential enquiry. A meeting will be held about twice a year with the traditional healers to discuss any new relevant cases.

- Health Unit Management Committees (ASACOs): regular monthly meetings will be organised, both to ensure the smooth operation of the health centre, and to discuss one relevant case where there is a recommendation for the committee to act upon.

- We will randomise the subdistricts of Kolokani and Sikasso districts to receive continuing professional development meetings for biomedical primary health care staff from health posts (antennes, maternités) and health centres (CSCOMs, CSRefs). A workshop will be organised once every 3 months to which staff from the selected districts will be invited, for training focussed around relevant cases where practice needs to be improved.

- There will continue to be a six-monthly “Grand Committee meeting” to which local politicians will be invited to hear a progress report and to hear recommendations.
We will also employ a communications and advocacy officer, who will be responsible for relaying and publicising recommendations relevant at the national level. We will request an audience with the health and social affairs committee of the relevant district councils and of the national parliament.

How will the intervention be evaluated?

- What will be the study design?
- What will be the population and sampling strategy?
- What will be the comparison group?
- What will be the outcome measures? Describe how and when they will be assessed (data collection instruments and procedures).
- Statistical sample size calculation or justification of sample size
- Underpin the evaluation method with scientific references.

The study will be designed as a controlled before and after study. The population will be the entire population of each selected “aire de santé”. For the training of traditional and/or biomedical health workers, we hope to use a cluster-randomised trial design where each subdistrict is a cluster, which is randomised to receive the training, or not. As described above we will build on existing mechanisms to ensure complete and accurate reporting of maternal, perinatal and child deaths. The comparison group will be the aires where the death reporting system has been set up but where the confidential enquiry mechanism / training has not yet been phased in.

The primary outcome measure will be the rate of perinatal and child (under-five) mortality in the selected aires, collected through the reporting system previously described. Secondary outcome measures will include implementation of recommendations; recruitment and retention of health workers to participating health facilities.

The sample size may not be sufficient to show a statistically significant difference between “pre” and “post” intervention areas, because resources are not sufficient to expand the study to such a large area. However this sample will enable us to estimate the size of the effect of the confidential enquiry mechanism on perinatal and child mortality. This in turn will enable us to justify and calculate the sample size required for a larger cluster-randomised trial of the confidential enquiry itself.
**Detailed timetable**

- **When are you going to start and finish each step of this proposal?**
- **Who needs to give ethical approval? When does the protocol need to be submitted to them, and when will the approval be given?**
- **Gantt chart**

Ethical approval needs to be given by ethics committees of:

- Ethics committee of the Institut National de Recherche en Santé Publique (INRSP)
- University of Oxford Tropical Research Ethics Committee (OXTREC)

We will submit to these two committees by 1st October 2012. We expect to receive ethical approval as an amendment and extension of the already-approved existing protocol.

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Methodological support

- Do you think you will need methodological support from the PMO and/or other HURAPRIM partners. If yes, what kind of support do you expect for which task?

The University of Oxford team will provide statistical, methodological, scientific and technical support to the DMT / Aidemet teams. We will run this study as one team.

References