

Ethics capacity building in low-income countries: Ethiopia as a case study

GLOBAL HELSE

INGRID MILJETEIG

E-mail: ingrid.miljeteig@uib.no

Ingrid Miljeteig (born 1975), MD, associate professor of medical ethics, Global Health Priorities research group - University of Bergen, special advisor in R&D - Bergen Hospital Trust (Helse Bergen). She leads the collaboration in ethics education between the University of Bergen, Bergen Hospital Trust and Addis Ababa University.

The author has completed the ICMJE form and reports no conflicts of interest.

KRISTINE HUSØY ONARHEIM

Kristine Husøy Onarheim (born 1987), PhD candidate in the Global Health Priorities research group, University of Bergen and intern at Ålesund Hospital. She has conducted field work in Ethiopia and has studied how families and healthcare workers make ethically challenging decisions.

The author has completed the ICMJE form and reports no conflicts of interest.

FREHIWOT BERHANE DEFAYE

Frehiwot Berhane Defaye (born 1963), MD, PhD candidate in the Global Health Priorities research group, University of Bergen, and coordinator for the Center for Medical Ethics and Priority Setting, College of Health Sciences, Addis Ababa University

The author has completed the ICMJE form and reports no conflicts of interest.

DAWIT DESALEGN

Dawit Desalegn (born 1973), MD, PhD candidate in the Global Health Priorities research group, University of Bergen, and director of the Center for Medical Ethics and Priority Setting, Addis Ababa University. The author has completed the ICMJE form and reports no conflicts of interest.

OLE FRITHJOF NORHEIM

Ole Frithjof Norheim (born 1965), professor of medical ethics, Global Health Priorities research group, University of Bergen and guest professor at Harvard TH Chan School of Public Health. He has extensive experience of various research and collaborative projects in Ethiopia. The author has completed the ICMJE form and reports no conflicts of interest.

OLAV HEVRØY

Olav Hevrøy (born 1950), senior consultant in the Regional Centre of Excellence for Palliative Care, Haukeland University Hospital. He has contributed to the development of intensive education programmes in Ethiopia.

The author has completed the ICMJE form and reports no conflicts of interest.

KJELL ARNE JOHANSSON

Kjell Arne Johansson (born 1975), associate professor in medical ethics, research group on Global Health Priorities, University of Bergen, medical doctor and senior researcher at the Department of Addiction Medicine, and medical doctor at the Department of International Collaboration, Bergen Hospital Trust (Helse Bergen). He conducts research into healthcare priority setting in low-income countries, particularly Ethiopia.

The author has completed the ICMJE form and reports no conflicts of interest.

Ethical dilemmas are part of everyday clinical practice, and doctors worldwide must make value-based decisions. In low-income countries with very limited resources, healthcare personnel and policymakers face ethical challenges. Ethiopian policies aim to improve the ethical decision-making competence of healthcare personnel. But what are the dilemmas experienced by Ethiopian doctors and how can training and professional development equip them to deal with the ethical challenges they face?

In this text, we illustrate ethical challenges that doctors experience in a resource-constrained health and welfare system. Our discussion is based upon our own empirical data from Ethiopia, our experience as healthcare workers in low-income countries, as well as relevant literature. We will describe the challenges *and* opportunities that lie in education, guidance and facilitation of ethical decision-making in a low-income country like Ethiopia.

Ethiopia

Of a population of one hundred million people in Ethiopia, one-third live below the poverty line (1). The majority of the population lives in rural areas, and maternal and child mortality rates remain high. There is only one doctor per 32 000 inhabitants, compared with one per 230 inhabitants in Norway (2).

The Ethiopian government has made significant efforts in recent years to increase the number of healthcare workers. Together with the Ethiopian Medical Association and the 28 universities that offer medical training, they have formulated plans for medical ethics education for students and professional development, a programme known as 'A Compassionate-Respectful-Caring Health Workforce (CRC)' (3). Teaching in medical ethics has been part of the curriculum at all 28 medical faculties. However, there is a shortage of teachers, and students have so far received little or no ethics education.

Raising ethical competence in Ethiopia – a collaborative project

In 2009, the Global Health Priorities research group at the University of Bergen began a research collaboration in ethics and priority setting with Addis Ababa University (AAU), which later developed into a training and development project. The initiative was based on a desire for collaboration with respect to (a) obtaining better empirical data from Ethiopia regarding ethical dilemmas, priority setting and the consequences of high-level decision-making; (b) normative discussion of these dilemmas together with Ethiopian colleagues; and (c) developing and implementing education and ethical support systems.

Because dilemmas following resource scarcity are prominent in the Ethiopian context, we have focused in particular on issues related to priority setting and distribution, both in clinical practice and at the level of healthcare policies. Box 1 provides further details of the topics addressed by the collaboration (Box 1).

Box 1: Overview of collaboration between the University of Bergen (UiB), Bergen Hospital Trust and Addis Ababa University (AAU) on priority setting and increasing ethical competence.

Center for Medical Ethics and Priority Setting

Collaborative project between the University of Bergen, Bergen Hospital Trust and AAU. Ethiopia's first centre for medical ethics and priority setting, opened March 2017 [\(4\)](#).

Research and capacity building

Various research projects on clinical ethics, priority setting and health economics.

Six Ethiopian PhD candidates (two have graduated), three Norwegian PhD candidates, six Ethiopian Masters students.

Teaching:

- Development of curriculum, study materials, lectures and context-relevant examples.
- Training of Trainers in Medical Ethics (ToT ME): courses in medical ethics and priority setting tailored to the local area, primarily aimed at those who will have responsibility for the ethics education of medical students in Ethiopia.

Textbook in medical ethics and priority setting

Written in collaboration with Ethiopian co-authors from AAU and EMA, as well as international experts.

Guidelines for limiting treatment of the seriously ill and dying

Being developed together with members of the clinical ethics committee at the Black Lion Hospital.

Collaboration with the Ethiopian Medical Association

Teaching materials and legal clarifications of doctors' responsibilities, duties and patient rights.

Collaboration with the Ministry of Health regarding professional development for healthcare personnel and healthcare managers

The work has received support from Norad and the Gates Foundation for research fellows, from SPIRE (University of Bergen) for collaboration in teaching, and from Bergen Hospital Trust for the development of the clinical ethics committee and professional development courses.

Clinical ethical dilemmas in Ethiopia

In order to prepare a useful educational programme, we required information and case studies relevant to the everyday clinical work of doctors and healthcare personnel in Ethiopia. In 2013, we conducted a study of one-third of all registered doctors in Ethiopia (587 participants, 91 % response rate), in which we asked about the ethical dilemmas they experience, how they deal with those challenges, and about their previous ethics education [\(5\)](#).

Most doctors reported dilemmas related to shortage and distribution of resources, the inability of patients to pay, and the financial implications of treatment decision for families. The doctors described difficult situations in which they had to decide, for example, whether a child with heart failure or

another with a severe asthma attack should have access to the single functioning respirator. They knew that their decision would result in the death of one of the children.

Others described the burdensome responsibility they felt when poor families took on debt to be able to pay for the medical treatment or diagnostics they recommended, or how they themselves intervened – and paid for treatment – when parents wanted to leave the hospital because they could not afford to pay for their child's drugs. Dilemmas related to reproductive health, disagreements with the family, and their duty to inform patients were also experienced by many doctors on a daily or weekly basis (Unpublished data: Miljeteig I, Defaye FB, Berhane Y et al. Clinical ethics dilemmas in a low income setting - A national survey among physicians in Ethiopia. 2017). Several reported witnessing unethical behaviour by colleagues (such as referring patients to their own private clinic or shouting at them).

Very few doctors reported dilemmas associated with limiting treatment of the seriously ill and dying, or issues regarding euthanasia. This differs from findings in American and European studies, in which overtreatment and treatment limitation are the most common dilemmas encountered by doctors in everyday clinical practice (6).

Priority setting at the crossroads between clinical practice and healthcare policy

In Ethiopia, the population composition, disease panorama and health service are all changing. The number and proportion of adults is expected to increase substantially over the next 30 years (see Figure 1). More children are being vaccinated and are attending school, essential healthcare is being made accessible, and maternal and child mortality rates are expected to fall.

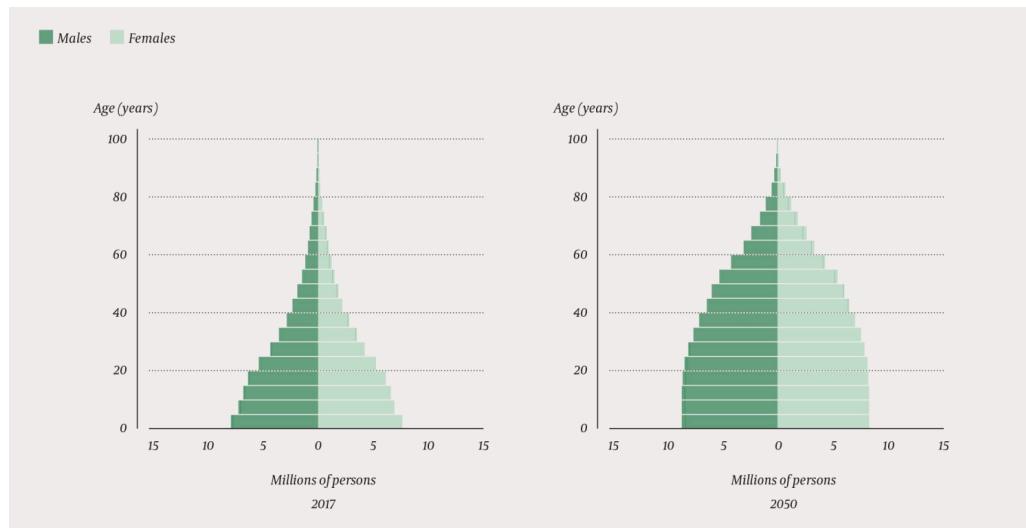


Figure 1 Demographic aging in Ethiopia illustrated by the current population pyramid (2017) and the projected population pyramid for 2050. The graphs were prepared using data from the UN (7) with permission.

These are positive developments, but they will also pose challenges for the healthcare system. The Ethiopian Ministry of Health aims to reduce the burden of infectious disease and to improve child and maternal health, but non-communicable diseases are also getting on the agenda. Policy makers face difficult choices between prioritising areas covered in the previous Millennium Development Goals (such as vaccination, qualified maternity workers, treatment of infectious diseases and diarrhoea) versus increasing access to other areas (such as treatment of myocardial infarction, stroke, diabetes, cancer and psychiatric disorders). Coverage for all of these health services is currently low in Ethiopia.

As part of efforts to achieve the UN's Sustainable Development Goals, essential healthcare packages are planned, in which the most basic and cost-effective healthcare interventions will be made available to all. Interventions such as the treatment of stroke with thrombolysis, myocardial infarction with PCI, or bipolar disorder with lithium/valproate are not cost-effective compared to vaccines or blood banks in maternity wards (8). Should these treatments not be offered to the millions of patients in need?

Two of the authors (Ole Frithjof Norheim and Kjell Arne Johansson) have been involved in the Ethiopian Ministry of Health's efforts to decide which interventions or areas should be prioritised in these packages. They have examined how key ethical criteria such as severity, poverty prevention, and equity may be given extra weight in policy decisions and health planning at population level.

Efficiency and cost-effectiveness are not the only concerns that matter. One study showed that pneumonia treatment could be very expensive for Ethiopian families, who have to pay USD 6–8 for outpatient treatment and USD 70–80 for hospital admission (9). Patients are required to pay for transport, medicines and equipment such as gloves and bedsheets themselves. Given that the average monthly income for a family in Ethiopia is USD 60, it is clear that protecting families against such financial risk is important and that this consideration should be taken into account when healthcare priorities are set.

When context-relevant guidelines are missing

In parallel with the effort to promote cost-effective interventions, advanced treatment methods are also being introduced in Ethiopia to prolong the lives of severely ill patients.

Systematic and well-planned implementation of new techniques and interventions in tertiary care are challenged by international collaboration or aid. The latter may include donation of hospital equipment, where use and maintenance will require thorough training for healthcare workers.

One example is dialysis treatment for patients with renal failure, which is now being offered on a very limited scale in countries like Ethiopia. Few low-income countries have conducted high-level and transparent priority setting processes, or developed locally appropriate and context-relevant guidelines for treatment of chronic renal failure (10). Studies show that dialysis treatment causes a

catastrophic health expenditures for many families in low-income countries, even when the treatment takes place in public hospitals (10). Many acquire debt that they never manage to repay, sell land or seeds, or use savings they had set aside for their children's education. In South Africa, dialysis treatment was shown to be distributed unfairly when the allocation of this limited resource was left to clinicians without access to guidelines or regulations. Older, white men had a far greater chance of receiving dialysis than others with a similar medical indication (11). The study led to development of explicit priority-setting criteria for dialysis treatment in South Africa.

In our study, we found that very few doctors in Ethiopia had access to guidelines to help them prioritise whom they should treat, who should undergo surgery first, and who should receive the last bed in the intensive care unit or be admitted to an overcrowded ward. The vast majority adopted a strategy in which resources were distributed based on a first come first served strategy (5).

During a collaborative project to educate intensive care providers in Ethiopia, it emerged that lack of guidelines was making it particularly difficult to make decisions regarding restricting life-sustaining treatment. A few hospitals in larger Ethiopian cities have, in a very short period of time, acquired equipment that can help keep seriously ill or injured patients alive due to use of respirators, chemotherapy or advanced surgery.

At present no legislation or clinical ethics committees exist to assist clinicians in making such decisions. Many physicians are afraid of being accused of performing euthanasia. The newly established clinical ethics committee at Black Lion Hospital has, along with two of the authors (Ole Fritjof Norheim and Ingrid Miljeteig), prepared a draft guideline for restriction of life-sustaining treatment that take account of the economic, cultural, religious and legal context in which the guidelines will be used. The proposal is now out for local hearing in the hospital (see Box 1).

In aiming to do good, technical equipment and new opportunities are often presented as positive contributions to improve health in resource-constrained settings. Our experience, as external collaborators (in academia and healthcare institutions), suggests that stimulating and contributing to ethical debate is an important responsibility. When resources are limited, there will always be dilemmas regarding who should have priority, and when it may be unethical to provide health services. This type of capacity building must be recognised as being of equal value to donation of equipment or training in the use of these.

How can we facilitate this type of competence without contributing to what has been described as moral imperialism or colonialism (12)? In academic discussions criticism is often directed at ethics projects originating from the USA and Europe. Too often, these do not relate to the local values and the sociocultural context in which the teaching of healthcare workers takes place.

Ethical awareness, skills and knowledge in medical ethics

We consider ethical competence to be a skill, just as communication abilities are skills required by healthcare personnel. Similarly, education in ethics is about practicing, raising awareness as well as learning about new theories. Our teaching programme is concerned with encouraging participants to share their own experiences and reflections.

We have also discussed the application and relevance of our methods and of 'Western' ethical theories in an Ethiopian context. How, for example, is the ethical principle of 'respect for patient autonomy' understood by Ethiopian doctors and what role does it play compared to considerations of the patient's family and community? Based on our experiences, sustainable strategies for capacity building must be developed locally, in close collaboration with experienced ethicists, and by using specific dilemmas that are perceived as relevant and context-appropriate (13).

Despite great enthusiasm and support from the Ethiopian Ministry of Health and from the leaders of universities and hospitals, there is a long way to go before ethics education, professional development and ethical support systems (such as clinical ethics committees) are in place. The huge increase in the number of medical students and other healthcare professions leads to challenges in obtaining qualified teachers, organising training programmes, and securing sufficient time and resources to promote ethical competence in the clinic.

We hope that our collaboration, and the Center for Medical Ethics and Priority Setting, can increase the position of medical ethics in healthcare programmes, and assist Ethiopian colleagues in discussing and conducting research on ethical challenges.

With an open and curious attitude to how others experience and deal with ethical dilemmas, we can learn much about our own and others' values, and at the same time lay the foundations for learning and development among our colleagues elsewhere in the world.

This article is part of the series 'Global Health in the Era of Agenda 2030', a collaboration between Norad, the Centre for Global Health at the University of Oslo and The Journal of the Norwegian Medical Association. Articles are published in English only. The views and opinions expressed in the articles are those of the authors only.

LITERATURE

1. World Bank. World Bank Open Data 2017. <https://data.worldbank.org/> (05.10.17).

2. World Health Organization. The 2016 update, Global Health Workforce Statistics. <http://www.who.int/hrh/statistics/hwfstats/> (05.10.17)
3. Federal Democratic Republic of Ethiopia, Ministry of Health. Health Sector Development Program IV 2010/11–2014/15. <https://phe-ethiopia.org/admin/uploads/attachment-721-HSDP%20IV%20Final%20Draft%2011Octoberr%202010.pdf> (16.10.2017).
4. Global health priorities. Training of Trainers in Medical Ethics (ToT ME) in Ethiopia. Bergen: University of Bergen, 2014. <http://www.uib.no/en/rg/globpri/83274/training-trainers-medical-ethics-tot-me-ethiopia> (16.10.2017).
5. Defaye FB, Desalegn D, Danis M et al. A survey of Ethiopian physicians' experiences of bedside rationing: extensive resource scarcity, tough decisions and adverse consequences. *BMC Health Serv Res* 2015; 15: 467. [PubMed] [CrossRef]
6. Hurst SA, Perrier A, Pegoraro R et al. Ethical difficulties in clinical practice: experiences of European doctors. *J Med Ethics* 2007; 33: 51 - 7. [PubMed][CrossRef]
7. United Nations, Department of Economic and Social Affairs, Population Division. World Population Prospects: The 2017 Revision, Key Findings and Advance Tables. <https://esa.un.org/unpd/wpp/Graphs/DemographicProfiles/> (05.10.17)
8. . Disease Control Priorities. 3rd edition. <http://dcp-3.org/> (05.10.17)
9. Memirie ST, Metaferia ZS, Norheim OF et al. Household expenditures on pneumonia and diarrhoea treatment in Ethiopia: a facility-based study. *BMJ Glob Health* 2017; 2: e000166. [PubMed][CrossRef]
10. Luyckx VA, Miljeteig I, Ejigu AM et al. Ethical Challenges in the Provision of Dialysis in Resource-Constrained Environments. *Semin Nephrol* 2017; 37: 273 - 86. [PubMed][CrossRef]
11. Moosa MR, Maree JD, Chirehwa MT et al. Use of the 'Accountability for Reasonableness' Approach to Improve Fairness in Accessing Dialysis in a Middle-Income Country. *PLoS One* 2016; 11: e0164201. [PubMed][CrossRef]
12. Widdows H. Is global ethics moral neo-colonialism? An investigation of the issue in the context of bioethics. *Bioethics* 2007; 21: 305 - 15. [PubMed] [CrossRef]
13. Miljeteig I, Berhane F, Desalegn D. A call for open access and empathy is not enough: hands on are needed! *Am J Bioeth* 2017; 17: 28 - 30. [PubMed] [CrossRef]
