

Invited paper

# Reproductive health: a call to the research community

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الصحة الإنجابية: دعوة لتعزيز البحوث المجتمعية  
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**الخلاصة:** لقد أصبحت الصحة الإنجابية تحظى باهتمام واعتراف مُتنامين، بدليل إدراج عناصرها في ثلاثة من المرامي الإنمائية للألفية التي أقرها المجتمع الدولي، فضلاً عن اعتبارها أساسية لإحراز المرامي الأخرى. ولاتزال مشاكل الصحة الإنجابية مسؤولة عن جزء كبير من عبء المرض، وبخاصة بين النساء. ولقد أقرت جمعية الصحة العالمية استراتيجية الصحة الإنجابية للتسريع من وتيرة التقدم المُحرز صَوِّب تحقيق المرامي الإنمائية الدولية وأهدافها. ولما كان العنصر البحثي عنصراً لا يُستغنى عنه فإن المجتمع البحثي مدعُو إلى تعزيز استجابته والأثر المُحتمل لإسهاماته في هذا المجال. وهناك عشرة اقتراحات مقدّمة للدراسة في هذا المضمار.

**ABSTRACT** Reproductive health has been receiving increasing recognition and attention. Its elements are included as 3 of the 8 Millennium Development Goals adopted by the world government community, and it is considered essential for reaching the other goals. Reproductive health problems still account for a major share of the burden of disease, particularly in women. The 57th World Health Assembly adopted a reproductive health strategy to accelerate progress towards the attainment of international development goals and targets. A research component is indispensable. The research community is called upon to enhance the responsiveness and potential impact of its contribution. Ten propositions are submitted.

## Santé génésique : appel à la communauté de chercheurs

**RÉSUMÉ** La santé génésique fait l'objet d'une reconnaissance et d'une attention croissantes. Ses éléments sont inclus dans trois des huit objectifs du Millénaire pour le développement adoptés par la communauté internationale, et elle est considérée comme essentielle pour réaliser les autres objectifs. Les problèmes de santé génésique représentent toujours une part majeure de la charge de morbidité, notamment chez les femmes. La Cinquante-Septième Assemblée mondiale de la Santé a adopté une stratégie sur la santé génésique afin d'accélérer les progrès sur la voie de la réalisation des objectifs et cibles de développement international. Une composante recherche est indispensable. La communauté de chercheurs est appelée à renforcer l'adéquation et l'impact potentiel de sa contribution. Dix propositions sont soumises.

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## Reproductive health

Health is defined in the World Health Organization (WHO) Constitution as a “state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” [1]. In the same context, reproductive health can be defined as a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity in all matters relating to the reproductive system and to its functions and processes [2]. This definition embraces a number of positive elements, including ability, success and safety [3]. It implies the ability to have children, the ability to regulate fertility, and the ability to have mutually fulfilling sexual relationships. It implies success in the pregnancy outcome and in infant and child survival and healthy growth and development. It implies safety in pregnancy and childbirth, safety in sex and safety in fertility regulation.

Reproductive health is not simply a health issue. It is a broader development issue. The crucial importance of reproductive health was elaborated, not in a health conference, but in a development conference, the Cairo International Conference on Population and Development in 1994 [2]. Although, for certain ideological and political sensitivities, reproductive health as an entity was not explicitly included as 1 of the 8 Millennium Development Goals (MDGs) adopted by the world government community, elements of reproductive health are included in 3 of the Goals [4]. Moreover, the UN Millennium Project Report submitted to the UN Secretary General in 2005 explicitly acknowledges that sexual and reproductive health is essential for reaching all the goals, and details how reproductive health impacts on each goal [5].

For Goal 1 (Eradicate extreme poverty and hunger), the report indicates that smaller families and longer birth intervals,

a result of contraceptive use, allow families to invest more in each child’s nutrition and health. At the national level, voluntary reduction of birth rates may enable faster social and economic development.

On Goal 2 (Achieve universal primary education), the report indicates that families with fewer children, and children spaced further apart, can afford to invest more in each child’s education.

For achieving Goal 3 (Promote gender equity and empower women), controlling whether and when to have children is a critical aspect of women’s empowerment. Women who can plan the timing and number of their births also have greater opportunities for work, education and social participation outside the home.

Goal 4 (Reduce child mortality) and Goal 5 (Improve maternal health) are reproductive health goals on their own.

As to Goal 6 (Combat HIV/AIDS, malaria and other diseases), sexual and reproductive health care includes preventing and treating sexually transmitted infections (STIs), including HIV/AIDS. In addition, reproductive health care can bring patients into the health care system, encouraging diagnosis and treatment of other diseases and conditions.

Under Goal 7 (Ensure environmental sustainability), providing sexual and reproductive health services and avoiding unwanted births can help stabilize population numbers in rural areas, slow urban migration and balance natural resource use with the needs of the population.

As to Goal 8 (Develop a global partnership for development), the report mentions that affordable prices for drugs to treat HIV/AIDS and a secure supply of contraceptives would greatly advance reproductive health programmes in all developing countries. It would also be a model for other health and development areas. The implication is that failure of countries to improve reproductive

health will not only mean failure to achieve the directly related health MDGs, but will also impact on the other goals.

The potential contribution of the reproductive health field to the MDGs can go beyond its impact on the implementation of the different goals. Although the reproductive health field is badly in need of more resources, it has a lot to offer. The reproductive health field has built vast networks of service providers, in the public and private sector, particularly in resource-poor settings. Probably more than any others, the field is rich in civil society networks working at the grassroots level to promote behavioural change and to mobilize communities. A rich experience taking place over several decades provides lessons to learn, lessons from successes and, equally important, lessons from mistakes and failures. This vast reservoir of know-how can be utilized to help in implementing the MDGs [6].

Reaching the MDGs is still a challenge for countries of the WHO Eastern Mediterranean Region. The 2005 report to the UN Secretary General by the Millennium Project highlights that the region of West Asia, which includes many countries typically classified as part of the Middle East, is off-track for a majority of the goals. The region of North Africa is moving in the right direction in every indicator, but it needs to accelerate progress to achieve the goals.

### **Status of reproductive health**

The status of reproductive health is a major international concern. A recent WHO document highlighted that reproductive and sexual ill-health accounts for 20% of the global burden of ill-health for women, and 14% for men [7]. Although the past decades have witnessed significant improvements in the health of populations, reproductive

health shows the highest discrepancies of all health indicators between countries.

*“The world health report 2005. Make every mother and child count”* estimated that each year 3.3 million babies, or maybe even more, are stillborn, more than 4 million die within 28 days of coming into the world, and a further 6.6 million young children die before their 5th birthday [8]. Maternal deaths also continue unabated: the annual total now stands at 529 000 often unpredicted deaths which occur during pregnancy itself (some 68 000 as a consequence of unsafe abortion), during childbirth, or after the baby has been born, leaving behind devastated families. The report laments how this situation can continue when the causes of these deaths are largely avoidable.

Table 1 provides information about death and burden of disease in the WHO Eastern Mediterranean Region (EMR) as a result of some reproductive health conditions [9]. The information is provided separately for 2 groups of countries in the Region, those classified as mortality stratum B (low child mortality and low adult mortality) and mortality stratum D (high child mortality and high adult mortality). The majority of population in the Region belongs to the latter group.

An EMR factsheet shows reproductive health indicators for the Region as a whole [10] (Table 2). These figures do not reflect the wide discrepancies between and within countries of the Region.

### **Priority elements in reproductive health**

A recent WHO strategy document outlined 5 priority elements of reproductive health to be targeted for action: improving antenatal, delivery, postpartum and newborn care; providing high-quality services for fam-

Table 1 Deaths and burden of disease in the WHO Eastern Mediterranean Region [9]

Cause	Mortality stratum		Total (n = 21 countries) No. (000s)
	Low child, low adult (n = 12 countries) No. (000s)	High child, high adult (n = 9 countries) No. (000s)	
<i>Population</i>	142 528	360 296	502 824
<i>Deaths</i>			
Total	706	24 074	24 780
STIs excluding HIV	0	23	23
HIV/AIDS	1	43	44
Childhood diseases	0	153	153
Maternal conditions	3	65	86
Perinatal conditions	28	275	303
<i>DALYS</i>			
Total	24 074	115 005	139 079
STIs excluding HIV	144	1 327	1 471
HIV/AIDS	51	1 351	1 402
Childhood diseases	55	5 568	5 623
Maternal conditions	412	4 104	4 516
Perinatal conditions	1 321	1 081	2 402

STI = sexually transmitted infections; HIV = human immunodeficiency virus; AIDS = acquired immune deficiency syndrome.  
DALYS = disability-adjusted life years.

ily planning, including infertility services; eliminating unsafe abortions; combating STIs, including HIV, reproductive tract infections, cervical cancer and other gynaecological morbidities; and promoting sexual health [7].

While countries may need to assign a relative weight to each of these reproductive health priority areas, it is important to recognize that reproductive health is an integrated package, and not the sum total of individual separate elements [11]. People cannot be considered healthy if they have one element of reproductive health but lack another. Moreover, the various elements of reproductive health are strongly inter-related. Improvements in one element can result in potential improvements in others. Similarly, lack of improvement in one element can

hinder progress in others. For example, the magnitude of the problem of infertility will not be ameliorated except by a reduction of STIs, by safer births that avoid postpartum infection and by decreasing the need for or the resort to unsafe abortion practices. Infant and child survival, growth and development cannot be improved without good maternity care. Proper planning of births, including adequate child spacing, is a basic ingredient of any child survival package. Unless adequately controlled, STIs and in particular HIV infection, can impede further progress in child survival. Fertility regulation is a major element in any safe motherhood strategy. It reduces the number of unwanted pregnancies, with a resultant decrease in total exposure to the risks of pregnancy, and decreases the number of

**Table 2 Reproductive health indicators for the Eastern Mediterranean Region [10]**

Variable	Value
Percentage of pregnant women attended by trained personnel (Attended at least once during pregnancy by trained personnel, excluding trained or untrained traditional birth attendants, for reasons relating to pregnancy)	60.3%
Percentage of deliveries attended by trained personnel (Excluding trained or untrained traditional birth attendants. Skilled birth attendants are defined by the WHO as "trained midwives, nurses, nurse-midwives or doctors who have completed a set course of study and are registered or legally licensed to practice")	53.3%
Percentage of caesarean sections out of all deliveries (Number of caesarean sections per 100 deliveries conducted in health institutions run by the public, private and non-governmental sector)	17.4%
Percentage of women using a contraceptive method (Married women of reproductive age, 15–49 years)	40.5%
Percentage of pregnant women with anaemia (Women screened during pregnancy for haemoglobin concentration with a haemoglobin concentration less than 110 g/L)	40.9%
Total fertility rate (Total number of children a woman would have by the end of her reproductive period if she experienced the currently prevailing age-specific fertility rates throughout her childbearing life)	4.0
Maternal mortality ratio (Number of maternal deaths per 100 000 live births)	370
Neonatal mortality rate (Number of deaths of live born infants, occurring during the period from birth to 28 completed days after birth per 1000 live births)	32.7
Percentage of low birth weight (Live births weighing less than 2500 g)	18.7%

unsafe abortions. Proper planning of births can also decrease the number of high-risk pregnancies.

### **A reproductive health strategy to accelerate progress towards the attainment of international development goals and targets**

A strategy was developed by the WHO as a result of extensive consultations in all

regions with representatives from ministries of health, professional associations, non-governmental organizations, United Nations partners and other key stakeholders [7]. It lays out the actions needed for accelerating progress towards the attainment of the MDGs and other international goals and targets relating to reproductive health, especially those from the International Conference on Population and Development (ICPD) in 1994 and its 5-year follow-up

(ICPD+5). The strategy was adopted by the 57th World Health Assembly in May 2004.

WHO proposed 5 overarching action areas for countries:

- strengthening health systems capacity;
- improving information for priority setting;
- mobilizing political will;
- creating supportive legislative and regulatory frameworks;
- strengthening monitoring, evaluation and accountability.

The relevance of each of these key action areas varies for the different priority elements of reproductive health. Also, a strategy for reproductive health cannot be universally adopted. It has to be adapted by each country, and tailored to its needs, resources and capacities. EMR includes 21 countries, stretching from Morocco to Pakistan, with a total population of over 500 million. Diverse cultural, social, economic, ethnic and political dynamics coexist within the Region. Development progress has been uneven both between and within countries. But there is no country, however limited its resources may be, that cannot adopt and implement a strategy to improve the reproductive health of its population.

While these overarching action areas apply, in varying degrees, to all public health problems, there are special considerations for reproductive health, which dictate the need for research. It is inconceivable that a country can properly implement a strategy for reproductive health, without having a research component.

### **A call to the reproductive health research community**

A review of the progress of research in the field of reproductive health over the past

few decades reveals a mixed picture of fascination and frustration. The technological advances are fascinating but the fact that so few of these have led to improvements in the health of all people is frustrating. The Constitution of the World Health Organization emphasizes that: “the extension to all peoples of the benefits of medical, psychological and related knowledge is essential to the fullest attainment of health” [1]. This ideal is still far from being attained. Although a large volume of knowledge is already available to produce a significant impact on reproductive health, the fruits of this knowledge are still not within the reach of the majority of the world population.

The research community calls, and rightly so, for the need for more research, for more resources for research and for the importance of generating more knowledge and developing new technologies. The plain fact, however, is that more health research, by itself, will not achieve the desired impact on reproductive health unless the fruits of this research reach and benefit all people. The research community is called upon to “go the extra mile”, to ensure that research is responsive to the real needs, and that it is communicated to where the action is, and to where it can have an impact.

Research is an investment for which policy-makers expect a return, and the investment should be made wisely. The research community should build more bridges with health policy-makers. The mission of the researchers should not end at implementing research projects and publishing results in scientific journals. Researchers should ensure that the results are communicated to where the action is, and should undertake a synthesis of research findings to promote their utilization. Biomedical research is not the only research needed to improve reproductive health. Health systems, human behaviour and the social context are

important determinants of reproductive health and should be targeted for adequately conducted research. The research community should be more cost-conscious when it recommends interventions to the health service. To produce good research that will attract attention and that can have an impact, particularly in low resource settings, researchers need to collaborate to make the best use of available limited capacities. Finally, the research community has a role and a responsibility in mobilizing the political will and commitment.

## **Ten propositions for the research community**

### **1. Researchers should recognize that research is an investment**

Researchers should appreciate that policy-makers consider research as an investment. Research competes for funding with other investments. As with any serious investment, a return is expected. Investors in scientific research in general, whether public or private, expect the return on their investment to be in the form of health promotion, wealth creation, or both. Scientific research, including health research, is viewed as an engine of economic growth in developed and also recently in some large and small developing countries. The health industry is one of the fastest growing industries, and one of the most profitable. In assessing the potential impact of research on health promotion, there is an economic return, which should not be undervalued. Reproductive health research is research for development and not only for health. Health is also wealth. Healthy people are needed to create wealth. Even when health research does not make money, it can save money. Publicly funded research is as important to enable health managers and policy-makers to save money, and avoid wastage, as it is valuable

in industry to make money. There can be significant cost savings to the health service as a result of properly conducted health research.

Since resources are finite, even in rich countries, researchers should set priorities according to the expected return on the investment. This has to be based on a number of considerations [12].

A first consideration is the relative magnitude of the health problem, as determined by its prevalence and its seriousness. A health problem may be prevalent but not serious, and may be serious but not widely prevalent. Reproductive health is not about a disease problem that affects a small number of people. The consequences of reproductive ill health are serious in terms of morbidity and mortality, and affect people in the prime of their lives. The gravity of the health problem should also take into consideration not only its physical impact in terms of morbidity and mortality but also its psychological and social impacts. There is also a question of urgency when the magnitude of health problems is considered. A health problem is urgent when it gets worse with the passage of time, as with a disease that is rapidly spreading (such as STIs and HIV/AIDS) or population growth that is gathering momentum, because of lack of access to fertility regulation.

The fact that a health problem is of high magnitude does not necessarily mean that it should be a priority for research. The know-how to deal with the problem may be already available, but it is not applied and made available. The need may be for action and not for more research. Research should not be an excuse for delaying action.

A health problem may be of high magnitude, and there may be a need for research to be able to address it. However, before it can be put as a priority for research, other questions need to be asked. Is enough known

about the problem now to consider looking for possible interventions? Are we in a position to move forward to develop and implement interventions? How cost-effective will these interventions be? Can they be developed soon and for a reasonable outlay? This may not always be the case.

A health problem may be of high magnitude, there may be a need for research to be able to address it and such research is feasible. However, for such research to be a priority, another question needs to be asked. Is this need for research already being met by currently ongoing research, to which not much can be added? In this context, the contribution of the private sector has to be examined. Industry is a major actor in health research. Research in industry, however, is market-driven and not needs-driven. Since people would be willing to pay more for a cure, preventive technologies generally receive a lower priority in private sector investment than curative technologies. The ageing population, with its purchasing power and chronic health needs, is driving the market for private sector research. Only a very small share of the large research investment by industry is addressed to the health problems of developing countries, where the markets are less profitable.

## **2. Researchers should build bridges with health policy-makers**

Health research is needed so that policy decisions can be based on evidence. Health policy-makers, particularly in developing countries, may not appreciate the contribution which research can make. There is still a divide between the universe of research and the universe of policy-making. The stereotype of the researcher in her or his ivory tower still prevails. As a matter of fact, health managers and policy-makers may be doing research without knowing it. Health research is simply the process for

systematic collection, description, analysis and interpretation of data that can be used to improve the health of individuals or groups. The research process changes “information” into “knowledge”, through critical assessment and relating it to other existing human knowledge. As they go through this research exercise, health managers and policy-makers need to understand more about the process of research. There is a need for researchers to demystify the scientific process and to engage policy-makers. The use of complex instrumentation is not a necessary requirement for all types of good research. Key attributes of good research are proper planning, accuracy in data collection and proper unbiased interpretation.

## **3. Research should be communicated to where the action is**

Research is not complete until it is written up and its results communicated. Publication in scientific journals and presentation in scientific meetings are the main traditional venues used by scientists to communicate their research findings. Scientists aim to publish their research findings in scientific journals that are peer-reviewed, that are indexed, and that have a high impact factor.

While it is important to share the results of research with other scientists who may build upon them to further advance the science, it is also important to communicate the results with those who may benefit from it, who may use it, and who have a stake in it.

Health policy-makers need adequate and scientifically validated information for evidence-based policy. Where the research has policy implications, researchers have the responsibility to communicate the results to the concerned policy-makers. Merely publishing the study or sending a copy of the report of the study is not adequate. It is much better, where possible, to have a



face-to-face presentation with ample time for discussion. Communication should not be left out until the completion of the research. It should ideally start during the stage of planning the research to ensure that research questions are framed appropriately and tested in relevant contexts using interventions that can be replicated in practice. Where possible, those who are most likely to use the results of research should also be involved in the implementation of the research project.

#### **4. Researchers should synthesize research findings to enable their utilization**

For research to be utilized, it has to be presented in a form that can be assimilated. The amount of research conducted and published in the field of reproductive health is enormous. The results are not always consistent. There is a problem for a busy practitioner, health manager or health policy-maker to make their way through this maze of research, with sometimes conflicting findings or conclusions.

Doing original research is important. But the research community should give equal attention to so-called secondary research, where research findings in a topic are synthesized and presented as systematic reviews, evidence-based reviews and clinical practice guidelines. Despite their central role in a knowledge-based health system, these reviews do not attract the same level of academic recognition as primary research. The WHO Reproductive Health Library is an example of a strategy to address this gap [13]. The Library is currently published annually in CD-ROM in English and Spanish. It provides systematic reviews of interventions in the field of reproductive health with commentaries from people with knowledge of how these can be applied in low- and middle-income countries. The

Library is a collaborative effort between the WHO's Department of Reproductive Health and Research, the Cochrane collaboration, and Reproductive Health Library partner institutions in low- and middle-income countries.

#### **5. The research community should recognize health systems as an important target for action-oriented research**

Researchers usually focus on health problems and finding solutions for them. They pay less attention to the health system that is charged with implementing these solutions. The result is that the research may not be applied. An analogy may be made to the computer field. Programmers can develop the best computer software. However, an enthusiastic buyer will be disappointed to find out that her or his hardware does not have the system requirements to run this excellent software, whether because of limited capacity or less than required quality. There will be a need to search for ways to expand the memory capacity, upgrade the quality, and/or look for software that can run on the system.

A major problem in developing countries is the lack of coverage or capacity of the health care systems, that make even relatively simple health technologies difficult to deliver. Also, a health system with good coverage may lack quality. Good anatomy of health systems does not always mean good physiology. For example, in a community where prenatal care is nearly universal, 97% of all deliveries take place in a health facility, 30% of deliveries are attended by an obstetrician, another 30% by a general physician and 4% by a nurse. In addition, where emergency obstetric care is available at regional hospitals and facilities specifically designated for complicated births, maternal mortality ratio was

variously estimated as 110–220 per 100 000 live births [14]. WHO has been advocating health systems research [15]. In spite of its important role in bringing the fruits of knowledge and technology to all people, as a discipline, health systems research still lacks adequate recognition in academic circles.

Strengthening health systems capacity and improving quality is a requisite for attaining the health-related MDGs and promoting reproductive health. Special concerns include the need for improving information for priority setting, the case for integration of services and the need for monitoring and evaluation.

#### *Improving information for priority setting*

Faced with the limited resources in their health system, policy-makers may have to make tough choices about what they can achieve. Sound judgements and decisions cannot be made without adequate epidemiological data; a proper understanding of the type, severity and distribution of reproductive and sexual risk exposure and ill-health in the population; and the cost-effectiveness of different interventions. Collection and analysis of data can be challenging in certain areas of reproductive health where the information is sensitive. Examples include STIs and HIV infection risk factors and unsafe abortion when abortion is against the law.

#### *The case for integration*

Reproductive health needs are rarely met through comprehensive programmes and services. The practice is rather for separate vertical programmes, commonly not taking into consideration the perceptions of those who are in need of these services. Integration of services should be approached in a pragmatic way and should be based on sound research. Services should be inte-

grated when integration makes their delivery more cost-effective. Different situations in countries should be judged in their own context. Integrated service delivery can be made more cost-effective either through better utilization, resulting in an increase of output, or through cost savings, resulting in a decrease of inputs. In practice, in the case of reproductive health, integration of services does not mean so much the combining together of existing services for different components of reproductive health. It means rather the addition of new interventions and new opportunities to serve users, to currently existing services, where the capacity exists. The principle should be that no opportunity should be missed for meeting all reproductive health needs.

#### *The need for monitoring and evaluation*

Monitoring and evaluation are research activities. They should be based on a well-designed and appropriately implemented research methodology. They are essential for managers and policy-makers to know how their programmes and policies are working or not working in the system and why. For reproductive health in particular, it is essential to monitor the introduction of health-sector reforms, sector-wide approaches, and the implementation of other financing mechanisms such as poverty reduction strategy papers and cost-sharing, to ensure that essential service packages benefit women and children, meet reproductive health needs and do not discriminate against the poor. There is a need for a gender perspective to be an integral part of the health system.

### **6. The reproductive health research community should recognize the need for behavioural research**

In many areas of reproductive health, lifestyle behaviour may be the most impor-

tant health determinant. “*The world health report 2002. Reducing risks, promoting healthy life*” estimates that globally about 2.9 million deaths (5.2% of total) and 91.9 million DALYs [disability-adjusted life years] lost or 6.3% of all DALYs, are attributable to unsafe sex [16]. The report also estimates that throughout the world, lack of contraception caused about 149 000 (0.3%) deaths and 8.8 million (0.6%) DALYs.

A recent report from the World Bank highlighted that the lack of solid data to understand the contexts and determinants of risk behaviours throughout the Middle East and North Africa region seriously limits intervention strategies [17]. People are at-risk of acquiring an HIV infection because of what they are doing or what they might be persuaded to do. Prevention strategies differ considerably for these different groups. Few countries in the EMR have made serious attempts to find out how many of these people are at-risk, where they are located, and how they may be accessed for education and services. This lack of knowledge can seriously impair the planning and design of HIV prevention programmes. Learning how to reach these people in confidential ways would make a great contribution to the national AIDS programmes.

Health researchers need to team up with behavioural researchers in order to understand the behavioural underpinnings of poor reproductive health and develop appropriate strategies to address them.

### **7. The community of health researchers should recognize the importance of social determinants in reproductive health**

From the time of Hippocrates, medicine has been practised in a social context. The conditions in which people lived and the ways in which they behaved were of great significance to the practice of medicine.

Then came the age of biology and technology. Spectacular scientific advances had a tremendous impact on the practice of medicine. On the positive side, physicians had the tools to achieve curative wonders, in ways that were never available before. On the negative side, as physicians became more technically oriented, they became less socially conscious. As they learned more about cell and molecular biology, they tended to forget that these molecules and cells constitute human beings with a social life of their own. It is only recently that medicine is rediscovering its social roots [18].

While the cult of high technology still attracts fervent followers, most health professionals are willing to concede that a major proportion of ill health results from socio-economic factors, and that there is a limit to what modern medicine can achieve without social interventions. However, there is no consensus on the implication of this for the health profession. It can be argued that the health community has limited capacity for direct action outside the health sector, and limited credibility for doing so. However, the profession has a social responsibility to study and to disseminate information on the effect on health of actions taken or not taken outside the health sector. The profession has also to be a social advocate for the health of vulnerable groups in society and for the right of access to health care without discrimination. The health profession can no longer play the ostrich, bury its head in the sands of biology, and turn its back on the reality of people's lives. Social determinants, including gender issues, are particularly important in reproductive health. Improving reproductive health will not be achieved with machines, devices or drugs, without taking into consideration the social context.

Social determinants are the conditions in which people live and work. They are

the “causes behind the causes” of ill health. In March 2005, WHO launched the Commission on Social Determinants of Health, a new body to spearhead action on the social causes behind ill-health [19]. The new Commission includes leading global experts on health, education, housing and economics. Commissioners will work to recommend the best ways to address the social determinants of health and safeguard the health of poor and marginalized populations, and to break the cycle of poverty and ill-health. The objective is that health policies should move beyond exclusively disease-focused solutions and include the social environment. The core of the Commission’s work will be to identify, evaluate, adapt and distribute effective strategies to address social determinants, with the aim of supporting governments to scale-up interventions. The Commission will operate for 3 years.

### **8. Researchers should recognize that money matters**

Reproductive health researchers need to be cost-conscious when they do research and make recommendations for action. It was only recently that economists began to give attention and apply classic economic theory to issues in the use of health care resources. No matter how rich a nation is, the amount of resources it devotes to health is, and always will be, limited and in competition with other possible uses. As resources are finite, each decision to use resources in one way implies a sacrifice of an opportunity to use the resources in an alternative way. In economic evaluation, costs are regarded as opportunity costs.

A common misconception is that health economics is about cutting costs. Health economics is a logic framework, which allows us to reach conclusions about the best way that resources can be allocated. All

methods of economic evaluation in health care have one principle in common. They examine one (or more) possible interventions and compare the costs of inputs or resources necessary to carry out such interventions with their effects or economically assessed benefits. Competing interventions may show little difference in outcome. The addition of the economic perspective offers a further dimension of evaluation. Health economists can be valuable assets to the reproductive health research team.

### **9. Researchers need to collaborate and not only to compete**

Countries need to strengthen their capacities for health research. It will be an investment and it will be worth it. But in addition to this, researchers need to make the best use of what they have. Promoting collaboration can compensate for the weakness of the infrastructure of the health research system. Collaboration can be within the country and/or between countries sharing the same health concerns.

Emphasizing the importance of reproductive health research as an area of strategic priority for programme and policy development, the WHO Regional Office for the Eastern Mediterranean created a network for reproductive health research [20]. This network aims to facilitate exchange of information and research-related experiences in the field of reproductive health between and within countries. The reproductive health research network consists of 2 components. The first is a comprehensive directory about governmental, private, non-governmental institutes, scientific bodies, research agencies, advocacy group and organizations concerned with and involved in reproductive health research in countries of the region. The second is a searchable database about research activities conducted from 1995 to present.

## 10. Reproductive health researchers have a role in mobilizing political will

It has been said that where there is a will, there is a way. The converse, however, is not necessarily true. Researchers invest their energy in generating the data about reproductive health problems and solutions, and optimistically expect that this automatically triggers the political will to take action. This does not necessarily happen. Mobilizing political will for reproductive health is particularly a challenge in societies where women and their issues are marginalized, and where women are not significant actors in the political arena.

Political will is not only essential for committing the resources to expand access and improve the quality of reproductive health services. It is also important for creating supportive legislative and regulatory frameworks. Laws and policies play

an important role, positive or negative, in facilitating universal and equitable access to reproductive health information, education and services. Reproductive health is rather unique among other public health areas. There is no society, present or past, nor any legal and moral code that takes a neutral stand about sexual and reproductive health issues.

Civil society groups with a health agenda are now active in many countries, and also at the regional and international level. Health researchers should team up with these groups where there is a need to build up political commitment and to advocate for legislative or regulatory change. Where appropriate, researchers should be able to communicate research findings to the public. Research is needed to build a strong evidence-based case for strategic investment in reproductive health, and for moving it up the national agenda.

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