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A special report on a new study by UNICEF shows that an equity-focused approach to child survival and development is the most practical and cost-effective way of meeting the health Millennium Development Goals for children.





In everything we do, the most disadvantaged children and the countries in greatest need have priority.

UNICEF's Mission Statement

Advancing towards the Goals

A new UNICEF study has arrived at a surprising and significant conclusion: An equity-based strategy can move us more quickly and cost-effectively towards meeting Millennium Development Goals 4 and 5 – reduce child mortality and improve maternal health – than our current path, with the potential of averting millions of maternal and child deaths by the 2015 deadline.

Reaching the most deprived and most vulnerable children has always been UNICEF's central mission. But recently it has become an even more pivotal focus of our work, as emerging data and analysis increasingly confirm that deprivations of children's rights are disproportionately concentrated among the poorest and most marginalized populations within countries.

The refocus on equity also reflects our unswerving commitment to meeting the MDGs, which have galvanized unprecedented national and international efforts. Impressive social and economic gains have been achieved for the world's children since 1990, the reference year for many of the Goals. Figures soon to be released by UNICEF show that the global under-five mortality rate, long considered a reliable gauge of child well-being, fell by one third between 1990 and 2009.

Summary of the key findings

- National burdens of disease, undernutrition, ill health, illiteracy and many protection abuses are concentrated in the most impoverished child populations. Providing these children with essential services through an equity-focused approach to child survival and development has great potential to accelerate progress towards the Millennium Development Goals and other international commitments to children.
- An equity-focused approach could bring vastly improved returns on investment by averting far more child and maternal deaths and episodes of undernutrition and markedly expanding effective coverage of key primary health and nutrition interventions.

More children are in primary school than ever before; for the period 2003–2008, net primary school enrolment rose to 88 per cent for the developing world as a whole. Almost all regions have attained gender parity in primary education, with around two thirds of countries and territories having reached this mark by the target year of 2005.

Societies, too, have benefited. Nearly 1.8 billion people have gained access to improved drinking water in the past two decades. HIV prevalence appears to have stabilized in most regions, and deaths from AIDS have fallen since 2004. And despite the global economic crisis, progress is still being made in reducing income poverty, especially in Asia. Although many challenges remain to fully realize the Goals, these successes demonstrate that we have the knowledge and proven interventions to make unprecedented strides in human development. The task is now to align these assets with political will and judicious investment.

The challenge of achieving equity for children

The gains made towards realizing the MDGs are largely based on improvements in national **averages**. A growing concern, however, is that progress based on national averaging can conceal broad and even widening disparities in poverty and children's development among regions and within countries.

In child survival and most other measures of progress towards the MDGs, sub-Saharan Africa, South Asia and the least developed countries have fallen far behind other developing regions and the industrialized countries.

And within many countries, falling national averages of child mortality conceal widening inequities. Recently, UNICEF's global statistical unit examined sub-national trends in 26 countries where the national under-five mortality rate has declined by 10 per cent or more since 1990. In 18 of these countries, the gap between the child mortality rates of the richest and poorest quintiles has either grown or remained unchanged. And in 10 of these 18 countries, this breach has risen by at least 10 per cent.

These facts and figures, and many more on disparities in child survival and development, are presented in the companion volume to this special report: *Progress for Children: Achieving the Millennium Development Goals with Equity*. That report card reveals the depth and extent of these inequities within countries.

Poverty is a crucial factor determining inequities in child survival and development. In general, however, indicators that show wide disparities across wealth quintiles also exhibit similar gaps between urban and rural areas.

Compared with their wealthiest peers, children from the poorest households throughout the developing world are doubly at risk of dying before age five. The odds are similar for stunting, underweight prevalence or being unregistered at birth.

Seldom do the poorest children, often living in remote areas or urban slums and disproportionately from ethnic minorities, enjoy the same level of access to basic health care, education and protection as the richest. Throughout the developing world, children from the poorest quintile are around 1.5 times less likely to receive measles immunization, or to attend primary school, than the children from the richest quintile. Although gender gaps in education have narrowed sharply in recent years, girls still face a higher risk of not attending school than boys, in rich and poor areas alike.

For girls, poverty and educational disadvantage exacerbate protection risks such as early sex and child marriage, which are widely associated with adolescent pregnancy and childbirth and their attendant health risks, as well as with increased exposure to sexually transmitted infections including HIV, domestic violence and social isolation. In developing countries, girls from the poorest households are three times as likely to get married before age 18 as girls from the wealthiest quintile. Furthermore, young women with little education are more susceptible to child marriage even in countries where its overall prevalence is low.

Pronounced disparities also exist in the coverage of maternity services. Although provision of both antenatal care and skilled attendance at delivery has increased across developing regions since 1990, women in the poorest quintile are two to three times less likely than those in the richest households to have access to or use these vital interventions.

These marked disparities in child survival, development and protection point to a simple truth: The MDGs and other international commitments to children can only be fully realized, both to the letter and in the spirit of the Millennium Declaration, through greater emphasis on equity among and within regions and countries.

Equity for children is right in principle...

A focus on equity for children has long been a moral imperative: The Convention on the Rights of the Child is founded on the principles of universality, non-discrimination and accountability.

...and strategically sound...

There are other compelling arguments for pursuing strategies with a strong equity slant.

First, several key international goals for children require universality. One of the most prominent is MDG 2, which seeks universal access to primary education. Logically, this objective can only be met if the children currently excluded, the poorest and the most marginalized, are brought into the school system.

Similarly, it will be impossible for global campaigns seeking the eradication of polio or virtual elimination of measles and maternal and neonatal tetanus to succeed without addressing the poorest communities within countries.

Second, having reduced the global under-five mortality rate by one third since 1990, we now have roughly five years to do so again to meet the conditions of MDG 4. Since most child deaths occur in the most deprived communities and households within developing countries, achieving this goal is only possible by extending the fight against childhood illness and undernutrition to them.

Third, breaking the cycle of poverty, discrimination, educational disadvantage and violence experienced by many girls and young women is only possible through equity-focused approaches that eliminate gender-based barriers to essential services, protection and girls' knowledge of their rights.

Fourth, new technologies and interventions can contribute to faster gains for the poor if applied equitably and at scale. Immunizations with pneumococcal conjugate and rotavirus vaccines have the potential to accelerate progress towards reducing pneumonia and diarrhoea, among the foremost killers of poor children. Recently developed interventions such as mother-baby packs of antiretroviral medicines have the potential to expand access to the many women and children still missing out on vital services to combat HIV and AIDS. The spread of SMS (Short Message Service) technology is allowing more data to be collected rapidly, enabling improved targeting of interventions to those most in need.

Finally, but most fundamentally, in the push to meet the Goals it would be strategically short-sighted to leave the poorest and most marginalized areas until last. We could find ourselves in 2015 facing the tough challenges of reaching the most deprived children of all – but with resources depleted, political will exhausted and a public that has moved on.

...but is it also right in practice?

Many accept that equity-focused approaches, based on extending services and protection to the poorest children and most impoverished communities, are right in principle and even sound in logic. But they have long questioned whether, in practice, such strategies are worthwhile as a priority, given their cost and complexity.

Such reasoning is not easily dismissed. It is hard to reach the poorest: They tend to live in areas that are remote, that have weak transportation links and limited physical infrastructure. Consequently, it is often far costlier to extend services to them than to provide these for more affluent groups. And even when services are made available, they must be free or at least heavily subsidized to ensure uptake, as the poorest are the least able to pay out of their own pockets.

Across the developing world, national governments would focus more on equity-based approaches if there were evidence that such strategies could accelerate progress in a cost-effective way. That is, if the gains in child survival and development achieved by reaching out to the most deprived areas were sufficiently large to offset the additional costs required and could propel nations faster towards the Goals.

Without such evidence, and beset by serious fiscal challenges and an uncertain global economic outlook, policymakers have faced a tough choice: Should they seek the best outcomes for the children who are easiest to reach in the time remaining until the 2015 MDG deadline? Or focus on the children living in marginalized areas with the highest levels of deprivation, where the potential gains are greatest?

This dilemma would be resolved if there were a more cost-effective strategy to simultaneously reduce disparities in the coverage of essential services, accelerate progress towards the MDGs and avert more deaths and other childhood deprivations than the current approaches.

PANEL 1: The logic of equitable solutions

For a long time, the conventional wisdom has been that more lives are saved in poor countries by focusing on the 'low hanging fruit' – those most readily reached by extending proven interventions through traditional service delivery modes such as hospitals and clinics. To focus on the marginalized, though right in principle, was generally not perceived as being cost-effective. However, a review of evidence and experience conducted by UNICEF in mid-2010 suggests that this is no longer true for three reasons:

- Excluded populations within countries generally have a larger proportion of children than other groups owing to higher fertility rates. As their rates of child mortality are also often considerably higher than those of more affluent groups, their burden of child deaths constitutes a large share of the national total.
- In excluded populations, a higher proportion of children die of preventable or treatable infectious diseases or conditions than the children of other groups.
- Most excluded populations have much lower coverage levels of cost-effective interventions with a proven high impact in reducing major childhood diseases and conditions. Consequently, these populations have the greatest scope for gains in survival and development outcomes in the next five years.

These arguments are perhaps most readily understood by example. Take Nigeria, where around 1 million under-fives die every year. The poorest quintile of households accounts for 325,000 of these deaths, the richest for 72,000. In addition, communicable diseases account for a far higher share of child deaths in the poorest quintile of households (66 per cent) than in the richest (44 per cent). And skilled birth attendance is available to a mere 8 per cent of pregnant women in the poorest quintile, while for the richest it is almost ten times higher, at 86 per cent.

It is therefore logical to assume that increasing the number of skilled attendants at delivery for pregnant Nigerian women, or extending interventions to prevent or treat communicable diseases in Nigerian children, has a considerably greater potential impact on the poorest quintile, where the burdens of disease and mortality are highest, than on the richest.

Over the past decade, there has been mounting evidence that such a strategy might be possible. In May 2010, UNICEF set out to determine if an equity-focused approach to child survival and development, always right in principle, might also be right in practice.

We asked ourselves this specific question: Because the needs are greatest in the most deprived areas, would the benefits of concentrating on them outweigh the greater costs in reaching them?

A new model of equity for children

At the outset, UNICEF staff representing a range of disciplines reviewed the data, literature and country experiences of mainstream and pro-equity strategies in four key areas: young child survival and development; HIV and AIDS; basic education and gender equality; and child protection. This extensive review informed the broad policy recommendations presented later in this report. It also provided a base for examining the organization's initial hypothesis that an equity-based approach focusing on the most excluded populations could accelerate progress towards the MDGs in a cost-effective way (see Panel 1).

To test its hypothesis further, UNICEF then assembled a research team of in-house specialists and international health experts to model an equity-focused strategy and compare its predicted outcomes against those of the current mainstream strategies for achieving the health MDGs for children. An extensive body of evidence on equity for children relates to public health, stretching back to the comprehensive primary-health-care approach set forth more than 30 years ago in the Declaration of Alma Ata.

The broad steps involved in the modelling exercise and its results are summarized below. Our intention is to publish the full methodology and complete findings of the study in a leading peer-reviewed journal in the coming months.

Selecting the countries

The modelling exercise involved several stages. In the initial stage, the research team, together with UNICEF's statistical unit, undertook an exhaustive review of approximately 60 countries, and then narrowed that number down to 15 that had sufficient data to analyze different levels of deprivation and sub-national patterns of inequity. The team further divided these 15 countries into four typologies, ranging from low-income countries where the majority of children experience high levels of deprivation, to middle-income countries with less deprivation but significant inequality between the most deprived and the more affluent.

Setting the strategies

Next, the team defined complex strategies to address child and maternal survival and health in the run-up to the 2015 MDG deadline. It should be noted that the strategies relate to the way additional funds could be invested to meet the health MDGs for children over the next five years. They do not constitute a critique of the status quo – which has generated considerable gains in primary health care in the past two decades – or propose an overhaul of the current public health systems prevailing in developing countries.

The *equity-focused approach model* aims to accelerate progress, reduce disparities and lower out-of-pocket expenditures for the poor through three key measures.

The first is to upgrade selected facilities, particularly for maternal and newborn care, and expand maternity services at the primary level, including maternity 'waiting homes'. These are facilities located The second is to overcome barriers that prevent the poorest from using services even when they are available to them. The equityfocused approach proposes to massively expand outreach services, eliminate user charges and extend cash transfers to the poorest to cover transport, subsistence and other indirect costs known to prevent them from utilizing services. To encourage healthy practices and foster the use of basic health care, the strategy also proposes to expand mass communication and employ community-based promoters of health and nutrition.

The third measure involves an innovative proposal: task shifting. This involves community outreach, greater use of community health workers to deliver basic health-care services outside of facilities whenever appropriate, and enhanced community involvement to promote care-seeking and healthy practices (*see Panel 2*).

The *current path approach* broadly approximates contemporary approaches and depicts their path over the next five years. It lends significant but less-focused attention to the most deprived groups and areas. The strategy's primary focus is to use additional investment to increase the training and deployment of professional health workers, expand building infrastructure and use mass communication to encourage the poor to seek care.

PANEL 2: Task shifting

Consider this: Only 60 per cent of under-fives with suspected pneumonia see an appropriate health-care provider. Many of the approximately 1.2 million pneumonia-related deaths among under-fives might be averted by ensuring that the poorest and most susceptible to the condition have access to care and basic medicines such as antibiotics in the places where they live.

Increasing evidence shows that many of the major diseases that afflict and kill poor children in particular – pneumonia, diarrhoea, malaria, measles and severe acute malnutrition – can often be managed successfully at the community level if community health workers are provided with adequate supervision, support and incentives. Without such innovation, children will continue to die for want of proven, low-cost interventions.

In the short term, using community health workers to deliver basic health-care interventions outside of facilities has two potential benefits. First, it can sharply expand the number of health workers available to poor children and families. And second, it lowers the cost of providing basic health care to them.

When task shifting is complemented by measures to promote the use of services, through both mass communication and individual advocacy on the part of community health and nutrition promoters, it can markedly increase access to and utilization of essential primary-health-care services. In common with the equity approach, direct user charges for health and nutrition services are eliminated and outreach initiatives are expanded to ensure wide coverage of such basic preventive interventions as immunization and promote healthy feeding, and hygiene and sanitation practices.

Both strategies apply the same selection of public health interventions, which are derived from an extensive body of literature – notably *The Lancet* series on maternal, newborn and child health and nutrition and other systematic reviews. These interventions can be broadly divided into three types: preventive, promotive and curative.

Preventive measures seek to prevent diseases and undernutrition and to support pregnant women. Examples include immunization, micronutrient supplementation, antenatal care and prevention of mother-to-child transmission of HIV. Promotive measures foster healthy feeding, hygiene and sanitation practices and other healthy behaviours. Early and exclusive breastfeeding, hand washing with soap, correct and comprehensive knowledge of HIV, and the use of insecticide-treated nets to prevent malaria are four such interventions. Curative measures aim to treat diseases and conditions, and to support mothers and newborns during delivery and in the postpartum period. They include interventions such as antibiotic treatment for pneumonia, skilled attendance at delivery and emergency obstetric care, treatment of severe acute malnutrition, and prophylaxis and paediatric treatment for HIV and AIDS.

Application of all three types of intervention in packages is proven to have a high impact on the main causes of maternal, newborn and child deaths among the poor.

Running the simulation

The final stage of the modelling process involved a highly complex simulation, running both strategy models through the four country typologies. For the simulation, the research team employed the Marginal Budgeting for Bottlenecks (MBB) model. Jointly developed by the World Bank and UNICEF, MBB has been widely employed in international public health research. It is a powerful tool for designing and testing development strategies.

MBB's central premise is that the success of strategies lies in their ability to overcome barriers limiting the supply of and demand for essential services. Supply-side barriers refer to the availability of commodities, physical infrastructure and human resources, and the proximity of physical services to communities.

Demand-side barriers are those that impede the initial and continued use of services by the poorest. They include such factors as distance, time and costs associated with using services, poor awareness and quality concerns, and social and cultural impediments.

Using MBB, policymakers and researchers can simulate varying configurations of service delivery modes to expand access and measures to encourage usage. For each strategy, the model generates the predicted impact on intervention coverage and health outcomes, overall cost and out-of-pocket expenditures for the poor, and cost-effectiveness (measured as the number of deaths averted for each \$1 million spent).

Prior to this study, MBB had never been applied to analyzing the differences between the most and least deprived populations within countries. Approximately 180,000 variables related to key interventions, bottlenecks, costs, disease burdens, population size and many other factors were employed in the simulation exercise. At the same time, the research team and other UNICEF staff continued to review hundreds of articles on equity-focused approaches, consulted with external specialists on evidence and methodology, and spent a day with leading international experts and advocates who were asked to review the work. The surprising results are summarized below.

Reviewing the results

Two initial results of the simulation exercise stand out.

First, an equity-focused approach will accelerate progress towards the health MDGs faster than the current path.

And second, it will be considerably more cost-effective and sustainable than the current path in all country typologies.

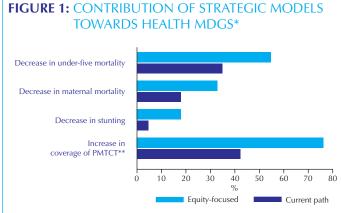
The potential MDG gains are significant. Across all country settings and deprivation patterns, the equity-focused approach has the best results in reducing child and maternal mortality, diminishing stunting, and increasing coverage of measures to prevent mother-to-child transmission of HIV (*Figures 1 and 3*). And it has the additional benefits of narrowing gaps between the most and least deprived groups and areas in all four country typologies (*Figures 2a and 2b*) and of lowering out-of-pocket expenditures for poor families at the same time.

The equity-focused approach is especially cost-effective in low-income, high-mortality countries. In these settings, for every additional \$1 million invested this approach averts 60 per cent more deaths than the current path (Figure 4).

To be sure of these conclusions, in July 2010 UNICEF invited leading international health researchers and economists to rigorously test the model and extensively review its conceptual framework, assumptions, inputs, methodology and results. The expectation is that this testing will continue as the model is further refined and applied to other areas of child development, notably education and child protection.

Some initial policy considerations

This analysis, together with the aforementioned literature review, suggests a series of initial policy considerations that are highly pertinent to UNICEF's renewed commitment to meeting the MDGs by adopting equity-focused approaches in its work. While the implications elaborated below are perhaps most appropriate for primary health care, they are also applicable to numerous other child development areas.



Based on the analysis of 15 countries: Bangladesh, Benin, Ghana, Honduras, Kenya, Mali, Niger, Nigeria, Pakistan, Philippines, Rwanda, South Africa, Uganda, Viet Nam and Zimbabwe

* The indicators here refer to health MDGs 1 (Eradicate extreme poverty and hunger); 4 (Reduce child mortality); 5 (Improve maternal health); and 6 (Combat HIV/AIDS, malaria and other diseases). The full list of health MDGs and associated targets referred to in the study can be found on the inside back cover of this report.

** PMTCT: Refers to interventions to prevent mother-to-child transmission of HIV.

Identify the most deprived children and communities

The poorest and most marginalized communities are not systematically assessed and are often forgotten when national development plans are laid and resources allocated. They are also the least likely to have a voice in global and national decision-making forums. Disaggregating national data to identify these groups and assess the factors that exclude them is fundamental to designing equitable solutions.

Several measures are currently available to identify the most deprived children. They currently include the child poverty measure, pioneered by the late Peter Townsend and the University of Bristol; the multidimensional poverty index recently developed by the Oxford Poverty and Human Development Initiative; and the Countdown to 2015 coverage gap measure. All of these have benefited enormously from the expansion of household surveys such as Demographic and Health Surveys and Multiple Indicator Cluster Surveys.

The potential for further advancements in data collection is growing rapidly. National governments such as those of India and Brazil are providing enhanced disaggregation of data on child survival and development. Population-based household surveys provide an important source of data on disparities that has yet to be fully exploited. New technologies, such as SMS, are facilitating more rapid and extensive data collection for and by poor and marginalized communities. Further investment in data gathering and analysis will strengthen the basis for equity-focused action at the national and sub-national levels.

Invest in proven, cost-effective interventions

The most effective interventions in health and nutrition are already well known. Investing in these interventions in packages is a proven and cost-effective way to avert deaths and reduce stunting.

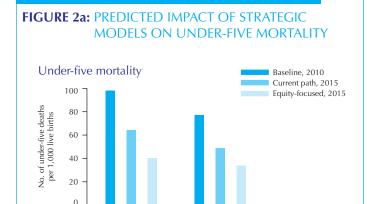
In education, abolishing school fees, providing cash transfers to poor families and introducing water, sanitation and hygiene programmes in schools are key actions known to boost school enrolment and attendance.

Solutions also exist to meet the challenge of sparse water and sanitation facilities among the poor. Community-based initiatives have been successful in encouraging households to use improved sanitation facilities and stop the practice of open defecation. Affordable technologies such as hand-drilled water wells and locally manufactured pumps bring water supplies within reach. Promotion of hygiene practices, such as hand washing with soap and home drinking water treatment, empower the poor to take control of these key determinants of their health.

Proven methods to prevent the transmission of HIV include education and health services that channel comprehensive knowledge and life skills to young people – especially to girls, who are much more susceptible than boys to the virus; correct and consistent use of condoms; and measures to prevent mother-to-child transmission of the virus. The decentralization of HIV services, especially antiretroviral therapy, has significantly helped expand access to HIV treatment.

Overcome bottlenecks and barriers

The current investment strategies for achieving the MDGs are heavily focused on removing barriers to service provision, including for the poor and marginalized. Less attention has been paid, however, to overcoming barriers to service utilization, such as social and cultural norms, the time and distance required to reach essential services, their uneven quality and low awareness of care among poor communities.

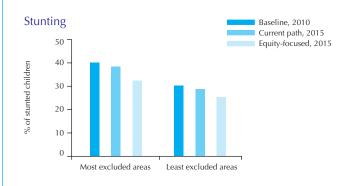


Based on the analysis of 15 countries: Bangladesh, Benin, Ghana, Honduras, Kenya, Mali, Niger, Nigeria, Pakistan, Philippines, Rwanda, South Africa, Uganda, Viet Nam and Zimbabwe. The most and least excluded areas for each country are determined by coverage levels of essential primary-health-care services.

Least excluded areas

Most excluded areas

FIGURE 2b: PREDICTED IMPACT OF STRATEGIC MODELS ON STUNTING



Based on the analysis of 15 countries: Bangladesh, Benin, Ghana, Honduras, Kenya, Mali, Niger, Nigeria, Pakistan, Philippines, Rwanda, South Africa, Uganda, Viet Nam and Zimbabwe. The most and least excluded areas for each country are determined by coverage levels of essential primary-health-care services.

Equity-focused approaches can accelerate progress by complementing efforts to scale up commodities and human resources with measures that encourage poor families to seek and use essential services. Innovative financing mechanisms such as cash transfers can help overcome direct and indirect financial barriers. Information, education and communication solutions are available to surmount cultural and social and barriers. Mobile and outreach services, and the innovative use of mobile technology, can greatly diminish the time and distance involved in obtaining services.

Above all, policymakers must continue to seek practical solutions to overcoming entrenched barriers by continuing to address a fundamental question: What barriers continue to keep poor children and families from accessing and utilizing services?

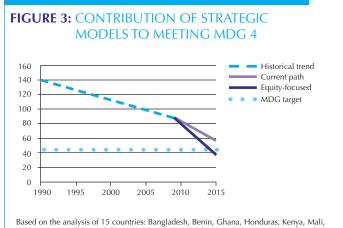
Partner with communities

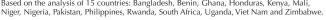
The development of high-quality, well-resourced and adequately staffed facilities is the cornerstone of building strong national systems in health and education. But in the most remote communities, excluded from mainstream services by distance, cost or simply disregard, enabling families to have regular access to outreach or community-based care may be the most propitious way to improve environmental health and combat disease and undernutrition in the short to medium term. Facility-based care is costly; outreach and community solutions are highly cost-effective and, most importantly, open to all.

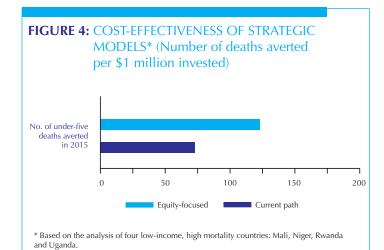
Community engagement is also vital, not only in the provision of services but also in their utilization and in the promotion of improved health practices and behaviours. Hand washing with soap has the highest impact of any intervention on reducing diarrhoea, lowering the condition by almost 40 per cent. Early and exclusive breast-feeding is one of the most effective preventive methods of saving children's lives, with the potential to avert 13 per cent of all underfive deaths in developing countries. Promoting such measures at the community level has the potential to accelerate progress towards MDG 4 at a faster rate than ever before.

Engaging communities in the health, education and protection of their children has benefits that go well beyond measurable improvements in child development outcomes. Such partnerships can also help address other entrenched and pernicious barriers, including discrimination on the basis of gender, ethnicity, disability, HIV status or stigma, that serve to exclude women and children from vital services and protection.

Community-focused programmes often begin tentatively and face tough challenges, particularly in retaining and motivating staff. The correct response is not to suspend these initiatives when difficulties arise, but to support and target them better. Numerous initiatives across the developing world – Mexico's diagonal approach to health care, Brazil's Family Health Programme and *Bolsa Escola* initiative, Ethiopia's Health Extension Programme, Pakistan's Lady Health Workers and many, many others – have demonstrated the enormous potential of community-focused programmes. Most importantly, they prove that scaling up cost-effective interventions for the poor at the community level, complemented by social protection initiatives, has the potential to help build national systems, not undermine them.







Maximize the impact of available resources

Article 4 of the Convention on the Rights of the Child requires governments to undertake measures aimed at meeting children's rights "to the maximum extent of their available resources". Costeffectiveness is a crucial criterion to assist in assigning priorities in the allocation of financing for child survival and development.

Given the current global economic climate, judicious use of available resources to spur progress towards the MDGs with equity is imperative. Approaches with a strong focus on the poorest and most deprived children, and on proven, cost-effective measures to reduce the barriers they face in accessing and using essential services, are appropriate for these times.

Reducing out-of-pocket expenditures for the poorest is also central to an effective equity-focused approach. Poor households expend a significant amount of their resources on costs related to health care and education. If excessive, these costs can have harmful effects. Families are often unable to afford essential services for their children even when these are made available. And when they do eventually use these services, it is often at the expense of other items essential for children's well-being, such as food and clean water.

Many countries are attempting to overcome this problem by devising policies and strategies aimed at reducing direct and indirect costs associated with services. Social protection mechanisms, including cash transfers, health insurance and other forms of assistance, are widely and increasingly accepted as vital ways to protect marginalized families from external shocks and motivate them to ensure that their children use key services.

Conclusions

The recommendations made here are a work in progress and will require deeper analysis and greater consideration as they evolve. But even at this incipient stage, the work undertaken thus far suggests that major inroads are possible to reach the poorest and most vulnerable children by refocusing our energies and investment on alleviating the barriers that exclude them.

The findings are significant, and have been rigorously reviewed and re-reviewed. But they should be interpreted judiciously. The study is based on models, not predictions of the future. It is not synonymous with the specific equity strategies that UNICEF will be pursuing in the wide range of countries in which we work. Nor should it be interpreted as a criticism of the current strategies already under way, which have contributed so much to the historic progress already made towards the MDGs.

The results do suggest, however, that a refocus of efforts on an equity-based approach is right in principle and right in practice. In principle, it reflects the universality precept embodied in the Convention, and is intrinsic both to the achievement of universal primary education (MDG 2) and the prevention of major diseases.

In practice, an equity-focused approach has the potential to accelerate progress towards the health MDGs for children at national and local levels, and to save many more lives for resources expended than the current approaches.

Implementing equity-based approaches will require courage, determination and substantial effort. And like most things that are worthwhile, it will be challenging. But given the evidence of this new study and UNICEF's own experience, it is a challenge that can be met.

The health MDGs referred to in this study are:

GOAL 1: Eradicate extreme poverty and hunger

TARGET 1C: Halve, between 1990 and 2015, the proportion of people who suffer from hunger

GOAL 4: Reduce child mortality

TARGET 4A: Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate

GOAL 5: Improve maternal health

- TARGET 5A: Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio
- TARGET 5B: Achieve, by 2015, universal access to reproductive health

GOAL 6: Combat HIV/AIDS, malaria and other diseases

- TARGET 6A: Have halted by 2015 and begun to reverse the spread of HIV/AIDS
- TARGET 6B: Achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it
- TARGET 6C: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases

GOAL 7: Ensure environmental sustainability

TARGET 7C: Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation

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 $\ensuremath{\mathbb{O}}$ United Nations Children's Fund (UNICEF) September 2010