

Malaria programmes

Introduction

Malaria is a mosquito-borne infection caused by Plasmodium parasites. The disease results from the multiplication of parasites within red blood cells, typically causing symptoms like fever and headache, in some cases progressing to coma or death. It is widespread in tropical and subtropical regions, including much of Sub-Saharan Africa, Asia, and the Americas.

In 2009, there were 225 million cases of malaria worldwide and 781 000 cases of malaria-related deaths, according to WHO's World Malaria Report 2010. It means 2,23% of deaths worldwide, making malaria one of the biggest problems not only for the affected countries, but for society worldwide. More than 90% of death cases are in Sub-Saharan Africa and the majority of victims are young children, making the problem even more alarmous – with HIV and tuberculosis, malaria is destroying populations at its basics.

However the numbers decreased since 2000 from 233 millions cases and 985 000 deaths, making the numbers look even better submitting the population of affected regions rapidly increased, the problem is far from being solved. The disease is curable not very differently from developed world diseases, that are considered no threat. Early phases can be treated by oral drugs, commonly known tool is quinine, although the later malaria strains are becoming resistant to it. Later phases are also very effectively curable under the surveillance of a experienced clinician. That brings us to the core of the problem, that is not the dangerousness of the illness, but the unavailability of knowledge about malaria problem and medical care. Malaria is commonly related with poverty and co-called under-development. In matter of fact, its both cause and result of those problems. With poverty and no infrastructure, you can't effectively fight malaria (and diseases in general). Other way round, with malaria wasting the population and consuming as much as 40% of public health expenditures in some countries, you can't properly develop the society. That points that the problem is very complicated, related not only to health care, but as well international cooperation and economic and human development in almost all its forms.

The previous paragraph speaks mostly on problems and expenditures related to infected population, but there is one way to avoid those problems before they even start, and that is the prevention. There exists no widespread vaccine, although there are several institutions aiming in its development. Until then, the prevention depends on quite primitive but still most effective methods, such as using mosquito nets, insect repellents, or, more controversially, reducing the areas of standing water and using insecticides.

Closer look on malaria-related problems

Malaria, as stated before, is a complex, health and social care related problem affecting not only demographic statistics, but indirectly economics and development as well. One of the biggest problems is, that the illness keeps people poor. In affected areas, the amount of money spent on malaria-related problems reach as high as 12 billion US dollars early. That amount is 25% of household incomes and 40% of money spent on health care. The disease does the damage in several ways – there is a lost income for workers and reduced productivity of workers, as well as reduced options in people's personal lives. The negative economic impact of malaria is a big barrier keeping affected countries out of international business, companies from the outside are not very into investing here and starting here any kind of their activities. The international trade in many sectors is for those countries closed. Delays on big projects, such as building transport infrastructure, related to malaria, are very common in those areas and may cost millions of US dollars on each.

Malaria is as well the leading cause of illness and absenteeism among students and teachers in Africa. So it has a very negative impact on education, the lack of it is one of the biggest problems in third world, and a root of all the others. Disease related financial losses are more indirect way how malaria raises the miseducation.

The direct impact of the disease is still the number one problem. Malaria is the cause of 20% of children deaths in Africa, considering the children mortality rate there, that is very high, this is the biggest problem. To express the dramatic reality, we can say that every 30 seconds, a child in Africa dies of malaria. Malaria as well attacks pregnant women four times more likely than the rest of the population, making the effect on population even more wasting. When pregnant woman is infected, the risk of losing life is very high for both mother and child. It is the main cause of premature births and low-weight babies. Malaria, not so deadly itself, rapidly raises the vulnerability to more serious illnesses such as tuberculosis and HIV/AIDS, once the person is infected. That means it indirectly causes more illness-related deaths than any statistics can show, not speaking about deaths from hunger, where the illness is commonly its direct or indirect (via illness related poverty) cause.

One of the biggest problems in struggling malaria is providing access to affordable and essential drugs. This problem has multiple levels. One of them is the financing of drugs and health care and prevention at general, there is a whole following chapter dealing with this problem. Other level is spreading the drugs among those who need it, there are several problems than can occur. In the african countries, there are large areas dealing not only with disease problems, but with a military conflict as well. Those areas are the largest problem at general, suffering from all the other problems listed, moreover some else. The other problem is insufficient infrastructure, including transport, medical, social and others. The lack of education and even more the lack of actual awareness may be the biggest problem of all, causing infected people do not know how and where they can be cured, in worst case they donot know it is possible at all. The lack of information on prevention is a obviousness in almost all african rural regions. One more problem that can appear is criminality during the spreading of drugs, its common that the money for it is used other way by authorities, stolen by third party, or, in worst case, the drugs are uneffective, when the pharmaceutical companies' vision of profit is more important than them than the moral values.

Documents and organizations in struggle against malaria

WHO's World Malaria Report is the most important, 6-chapter-divided document, released yearly defining goals, policies, strategies and practice in fighting malaria, as well as summarizing achievements and fails from last year.

The documents takes targets from several other sources. First of them is Millenium declaration by United Nation. There are 2 malaria-related targets included in the millenium development goals, a fundamental United Nation document released and signed by all 193 participating countries in September 2000. It's target 4: by 2015 reduce by two-thirds mortality rate among children under five; and target 6: by 2015 have halted and reverse the incidence of malaria and other diseases. The other main source, and other main organization participating in creating World Malaria Report, is Roll Back Malaria, the global partnership for a malaria-free world. This organization is directly connected with Novartis, one of world's leading pharmaceutical companies, and their main goal may be profit, but still they're the most active player in struggle with malaria. This organization has three official goals. First just expands one of the goals in Millenium declaration, stating that by 2015, the malaria-specific Millennium Development Goal is achieved, and malaria is no longer a major cause of mortality and no longer a barrier to social and economic development and growth anywhere in the world. Second one states that Beyond 2015, all countries and partners sustain their political and financial commitment to malaria control efforts. The burden of malaria never rises above the 2015 level, ensuring that malaria does not re-emerge as a global threat. And finally the third one states that in the long term, global malaria eradication is achieved. There is no malaria infection in any country. Malaria control efforts can be stopped.

Financing malaria control and struggle against malaria is one of the main topics, that has to be solved in field of aid to developing countries. As for 2010, it's required to spend 5 billion US dollars a year to keep the aid running for next five years, than is possible to reduce the amount to 4,75 billion US dollars. That decrease will be possible thanks to gaining more control over malaria and decrease of infected and endangered people, according to Global Malaria Action Plan by Roll Back Malaria organization. Although 90% of cases and death appear in Sub-saharian Africa, only 80% of money are targeted there. The difference is not that high and it is undestandable why it is this way – one reason is that starting a program in some area is quite expensive thing, so the bigger the area the more you can spread the starting expenditures. Other and maybe more important reason is, that one of the other affected areas is India, where several important pharmaceutical institutions are located.

About two-thirds of required money comes from The Global Fund to Fight AIDS, Tuberculosis and Malaria. It's a international financing organization that aims to gather and relocate funds and other sources of aid to help prevent and fight those three diseases, that together represent one of the biggest threats that humanity faces to. It's a public-private partnership with a secretariat in Geneve, Switzerland, found in 2002. This organization is tightly related to WHO, but it is not part of it neither United Nation. The company claims spending 21 billion US dollars till 2010 fighting those diseases worldwide. Their announcement states that 160 million anti-mosquito nets were financed and sucesfully distributed into targeted areas to help fight malaria.

Giving almost the same amount of money to each disease, they claim to provide 65% money spent worldwide on tuberculosis and malaria, but only 20% money spent worldwide on AIDS, what means there's a big inequality in financing third-world-related malaria and tuberculosis, and world-spread AIDS. That inequality is one of the main reasons the advances in curing those diseases are not as fast as they probably could be. However, the developed world public sectors provide 95% of all money, that The Global Fund operates with. As for 2010, United States are the biggest contributor, followed by France, Germany and Japan. The last 5% comes from private sector, lots of world-known personalities are participating in that philanthropy. This organization, as well as the whole „anti-malaria business“, suffers now from the world financial crisis, and is 1,3 billion US dollars short in minimum requirements for 2011 to 2013, that is claimed to be 13 billion US dollars, but the organization as well claimed that it needs 20 billion US dollars for really effective continuing and spreading of all their activities. That lack of money is claimed to lead to difficult decisions, that can be done wrong and cause significant problems in fighting those diseases.

Second largest donor of battle with malaria is US President's Malaria Initiative, providing 15% of money spent on malaria in 2010. This organization was found 2005 and claimed reducing malaria-related deaths by 50% in 15 focus countries as its main goal. Those countries are all in Africa, including Angola, Benin, Democratic Republic Congo, Ethiopia, Ghana, Kenya, Liberia, Madagascar, Malawi, Mali, Mosambique, Nigeria, Rwanda, Senegal, Tanzania, Uganda and Zambia. Selection of some countries and some, lying between them not, may seem being politically influenced, but the organization stated it's carefully selected under several criteria, including high malaria disease burden, national malaria control policies consistent with the internationally accepted standards of the World Health Organization, capacity to implement such policies, willingness to partner with the United States to fight malaria and involvement of other international donors and partners in national malaria control efforts. Prevention and health care is aimed to pregnant women and children under five years of age, trying to prevent from the population catastrophe. As for the structure of the organization, it is lead by US Agency for International Development, and implemented to U.S. Centers for Disease Control and Prevention (CDC) of the U.S. Department of Health and Human Services (HHS). It is overseen by a U.S. Global Malaria Coordinator and an Interagency Steering Group made up of representatives of USAID, CDC/HHS, the Department of State, the Department of Defense, the National Security Council, and the Office of Management and Budget. It co-operates with other US government agencies, international organizations and faith-based organizations, as well as the private sector.

Third largest donor on malaria programmes is World Bank. This institution provides money through its programme The World Bank Booster Program for Malaria Control in Africa. This program was started in 2006 with budget of 50 million US dollars for the first year, now it costs approximately half an amount of money the PMI does, that means 8% of money spent on malaria worldwide. During its second year, in 2007, the amount of money raised rapidly to 450 million US dollars and the numbers continue to increase. This organization, as well as others, claims see-through direct financing of multiple facilities and institutions, that are not only in health sector, but the support is multi-sectoral and flexible. That means World bank is willing to provide money to anyone who proves his work on prevention on fighting malaria is

worth it. The World bank also states that one the part of effectiveness of its activity on malaria is good monitoring of money movement after its handed over. Multiple, mostly western-world based, but Africa based organizations as well, are used to complete the system of providing, monitoring and effectively spending money. The organization claims that their biggest physically proved successes is yearly distribution of 20 million insecticidal nets and 15 million doses of ACT therapy, that is both preventional and curing.

All of listed, as well as many others organizations, no matter if they are participating in funding, providing contacts, actual physical struggle with the disease or other problem-related services, are claiming that the mutual co-operation is the basic need if the goal of vanishing malaria has to be reached. No matter if the organizations are under the WHO, World bank, pharmaceutical organizations, national governments or in private hands. Examine the tightness or looseness of those relations deeply is quite impossible, considering there are thousands of connections and not all of them are captured anywhere on paper.

The vast majority of all participators comes from developed world, with national governments being only important player from Africa itself, and having mainly the role of re-distributor of funds. From the money the governments receive, 42% is used to support prevention and 31% to support treatment, 14% to health care system strengthening and 13% to help the programmes. In most cases, 80% of money received is spent during the first year.

The future of malaria

As stated before, majority of participating organization foresee the struggle with malaria will be less and less expensive in following years, thanks to their hard and successful work. The numbers of cases, deaths, interrupted pregnancies will decrease, as well as the economic and social impact of the disease. The countries will be able to gain control over it partly itself, and they will be able to participate in international trade finally. That is the development presented by organizations, that have the goals set like that. In reality, there can be some serious obstacles keeping this from happening. Although the decrease of health related negative numbers happens for last few years and for sure it will continue, making this process faster, as they want to do, could be a long lasting task. As well as using this positive development in health sector to start changes in economics and social care as well. The economic crisis definitely won't be an accelerator of this process, the first signs of how difficult it will be with global economic problem already showed, when The Global Fund claimed lack of money for all their actions. Considering how important this organization is, this could be a stroke for a very positive development of last few year, that happens mainly thanks to big concern of international organization and their willingness to finance it good many times more than ever in the past. In matter of fact, all the organizations claim in their reports that the amount of money spent is directly proportional to progress in fighting the malaria. This is understandable considering the reports are the way to communicate with public and potential donors, but it is very important that those organizations understood, that the problem is deeper and their work has much more levels, then just gaining money, and they should behave on basics of this thought.

One thing that could really help, is finding really effective vaccine. There still will be problem with financing the whole thing, keep the drug related criminality from happening and mainly spreading it into peripheral and rural areas, but increasing rapidly the effectivity of curing could be big step forward. Just very recently, November 17th 2011, scientists in Basel, Switzerland, discovered new antimalaricum, that targets both blood- and liver-attacking parasites and is able to both prevent and cure the disease. Hopefully, that discover opens a whole new episode in fighting malaria and, as a result, in development of affected regions, that seems with malaria so hopeless.

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