
ACKNOWLEDGMENTS

Written and prepared by:

Belinda Loring

With helpful comments and review from:

Sharad Agarwal, Emily Brink, Annette David , Gauden Galea, Vivian Lin and Bosse Pettersson.

With input and review for specific topics from:

Tuberculosis

Knut Lonnroth

Malaria

Prudence Smith

Maternal mortality

Matthews Mathai

Anayda Portela

Road traffic injuries

Etienne Krug

Margaret Peden

HIV/AIDS

Kevin O'Reilly

Mental health

Elise Davis

Helen Herrman,

Shekhar Saxena

Food safety

Francoise Fontannaz-Aujoulat

Diabetes

Gojka Roglic

Tobacco

Douglas Bettcher

Gemma Vestal

Alcohol

Vladimir Poznyak

Slums

Francisco Armada

Jostacio Lapitan

Healthy ageing

John Beard

Carla Salas-Rojas

TABLE OF CONTENTS

Introduction	3
Tuberculosis.....	7
Malaria.....	7
Maternal mortality.....	18
Road Traffic Injuries	24
HIV/AIDS.....	27
Food Safety.....	31
Mental Health	35
Diabetes	37
Tobacco.....	41
Alcohol.....	44
Slums.....	47
Healthy Ageing.....	50

INTRODUCTION

Our ability to successfully control longstanding global health threats such as tuberculosis and malaria, address persisting injustices such as maternal death, and respond to emerging crises posed by noncommunicable conditions (NCCs), urbanization and ageing, depends not on the discovery of new solutions, but the implementation of the solutions we already possess. Under the framework of an integrated approach to health promotion, this toolkit offers examples of how existing knowledge could be applied to a number of priority public health conditions. This document is intended to complement the **Primer on Mainstreaming Health Promotion**. Both these documents are being presented for discussion and further development at the 7th Global Conference for Health Promotion, in Nairobi, Kenya, 26-30th October 2009.

WHY THESE CONDITIONS?

This toolkit focuses on a number of priority public health conditions, selected to appeal to a broad range of audiences, and to illustrate a diverse spectrum of health promotion interventions. These conditions are of particular importance for a number of other reasons:

1. We are behind in achieving agreed goals

- The Millennium Development Goals (MDGs) recognize that improving health is critical to development, and set specific targets for a number of health related areas, including malaria, tuberculosis, HIV/AIDS and maternal mortality. Progress towards achieving these goals is fragile and increased effort is required to achieve or maintain the targets set. Tuberculosis prevalence and mortality rates are falling, but not fast enough to meet global targets, and two-thirds of people needing antiretroviral treatment for HIV/AIDS are still missing out (United Nations, 2008). MDG5 seeks to reduce the 1990 rate of maternal mortality by three quarters by 2015, yet in Sub-Saharan Africa, where most maternal deaths occur, there has been negligible change since 1990 (United Nations, 2008).

2. These conditions cause a great burden

- Noncommunicable conditions such as diabetes, road traffic injury and mental health conditions, cause 60% of global deaths and are a major cause of disability. Tobacco and alcohol are two of the four main preventable risk factors for noncommunicable disease, with tobacco being the single largest preventable cause of death in the world (World Health Organization, 2008). In addition, malaria, tuberculosis, HIV/AIDS and maternal mortality remain major causes of death, disability, and poverty. An estimated 3300 million people live in areas exposed to malaria, 13.7 million people have tuberculosis and 33 million people are living with HIV (World Health Organization, 2009).

3. These conditions represent extreme inequities

- In addition to the size of the burden, conditions such as maternal mortality serve as a scorecard in the progress towards health equity. The fact that 536,000 women continue to die each year in some countries, from causes almost entirely avoided in wealthy countries, indicates that we have a long way to go in allocating our collective health knowledge and resources fairly, and closing the equity gap.

4. These conditions pose an emerging threat

- The rapidly rising burden of noncommunicable conditions such as diabetes, injuries, mental health conditions and tobacco related disease, threatens to overwhelm developing countries: swamping health systems, impoverishing many of those recently emerged from poverty, and perpetuating the intergenerational transmission of poverty for others. Almost half the disease burden in low- and middle-income countries is now from NCDs, and this is projected to rise to 66% by 2030 (World Health Organization, 2008a). NCD deaths in low and middle income countries will occur at lower ages than in high income countries, causing an even greater impact on the total disease burden (Abegunde, Mathers, Adam, Ortegón, & Strong, 2007). In 2030, 10% of all deaths will be caused by tobacco, and if current trends continue an estimated 500 million people alive today will be killed by tobacco (Levine & Kinder, 2004). Depression is projected to be the leading cause of disease burden in the world by 2030. Road traffic accident deaths are projected to increase from 1.3 million in 2004 to 2.4 million in 2030, primarily due to the increased motor vehicle use in low and middle-income countries (World Health Organization, 2008a).
- Particular demographic changes, such as population ageing and rapid urbanisation provide additional challenges that will influence the global health landscape. Urbanisation is occurring at a rapid rate in low and middle income countries, outpacing the capacity of cities to adequately house and provide infrastructure, and causing an explosion in the numbers living in informal urban slums. Already almost a third of the world's population live in slums (Unger & Riley, 2007), with profound impacts on population health and wellbeing. Globally, the world's population is ageing, and promoting health and well-being for as long as possible into old age will become an increasing priority, for governments, communities and individuals.

HOW AN INTEGRATED HEALTH PROMOTION APPROACH CAN HELP

We already have the evidence, knowledge, strategies and interventions to avoid much of the burden caused by these conditions. Approximately 80% of the global burden of NCDs could be prevented using proven strategies addressing just four main risk factors: tobacco, alcohol, diet and physical inactivity (World Health Organization, 2008b). Almost all maternal deaths are able to be avoided using existing health technology. Insecticide treated bed-nets can avert 50% of malaria cases, and timely treatment can prevent most malaria deaths (Aregawi, Cibulskis, Otten, Williams, & Dye, 2008). HIV infection can be now not only be prevented but treated as well, with anti-retroviral treatment enabling most HIV positive people to live long and healthy lives. New tools and refinements to existing ones are always welcome additions, but the world is currently being held back because we are not applying the solutions we already have. Closing this implementation gap could save many more lives than any new tools or technologies. Also, the wide variation in disease burden between and within countries is an artefact of society, not of nature. Our health promotion efforts have often been systematically more successful for some groups than for others, and in order to close this equity gap we need to do more to apply, modify and re-orient our existing solutions to ensure they equitably benefit those in need.

Many countries are relying on predominantly medical and technological approaches to manage these conditions, without utilizing the full repertoire of effective health promotion strategies available. This is not only an incomplete strategy, but one that is quickly becoming financially

crippling and logistically unsustainable. The purpose of this toolkit is to share examples of a range of health promotion strategies in relation to a number of these priority conditions, not to serve as an exhaustive or prescriptive recipe, but as a menu of possibilities that could be adapted or applied in other contexts. For each health topic, examples are given for each health promotion domain: individual empowerment (health literacy and health behaviour), community empowerment, health systems strengthening and intersectoral action and partnerships.

There is a communication challenge inherent in advocating for a more integrated approach to health promotion. An approach that is too strictly vertical faces criticisms of being too narrow in focus, missing opportunities to maximise co-benefits in other areas, failing to address broader determinants, and failing to make sustained changes to community capacity. Yet an approach that is too horizontal also faces challenges in being seen as so broad in its reach that the actions and benefits sit well outside the traditional field of public health programmes and there is difficulty demonstrating well-defined achievements, especially in the short-term. This is why this toolkit and the Primer on Mainstreaming Health Promotion are produced as companion documents - the Primer outlines how and why an integrated approach to health promotion is important, with the recognition that programmes operate within a need to produce some specific outcomes. This toolkit seeks to illustrate examples of opportunities from the perspective of more vertical programmes/diseases, but at the same time it is important to recognise that many of the upstream determinants, such as income, housing and women's empowerment are common to many, if not all, of these conditions. Not only does action on these common determinants produce benefits beyond one disease, but effective health promotion for most of these conditions requires cross cutting approaches.

WHAT THIS TOOLKIT CONTAINS

This toolkit provides practical guidance on the mainstreaming of health promotion, using examples from the evidence in relation to the following priority public health topics:

1. Tuberculosis
2. Malaria
3. Maternal mortality
4. Road traffic injuries
5. HIV/AIDS
6. Food safety
7. Mental health
8. Diabetes
9. Tobacco
10. Alcohol
11. Slums
12. Healthy ageing

REFERENCES

- Abegunde, D. O., Mathers, C. D., Adam, T., Ortegon, M., & Strong, K. (2007). The burden and costs of chronic diseases in low-income and middle-income countries. *Lancet*, 370(9603), 1929-1938. doi: 10.1016/S0140-6736(07)61696-1.
- Aregawi, M., Cibulskis, R., Otten, M., Williams, R., & Dye, C. (2008). *World Malaria Report 2008*. World Health Organization.
- Levine, R., & Kinder, M. (2004). *Millions saved: proven successes in global health*. Washington DC: Center for Global Development.
- Unger, A., & Riley, L. W. (2007). Slum health: from understanding to action. *PLoS Medicine*, 4(10), 1561-1566. doi: 10.1371/journal.pmed.0040295.
- United Nations. (2008). *The Millenium Development Goals Report 2008*. United Nations, New York. Retrieved April 20, 2009, from http://www.un.org/millenniumgoals/2008highlevel/pdf/newsroom/mdg%20reports/MDG_Report_2008_ENGLISH.pdf.
- World Health Organization. (2008). *WHO Report on the Global Tobacco Epidemic 2008: The MPOWER Package* (1st ed.). World Health Organization.
- World Health Organization. (2009). *World Health Statistics 2009*. World Health Organization, Geneva. Retrieved from http://www.who.int/whosis/whostat/EN_WHS09_Full.pdf.
- World Health Organization. (2008a). *The Global Burden of Disease 2004 Update*. Geneva: World Health Organization.
- World Health Organization. (2008b). *2008-2013 Action Plan for the Global Strategy for the Prevention and Control of Noncommunicable Diseases*. World Health Organization, Geneva.

TUBERCULOSIS

1. INDIVIDUAL EMPOWERMENT - HEALTH LITERACY AND HEALTH BEHAVIOUR

Health promotion interventions in this area have primarily aimed to encourage tuberculosis (TB) patients to better adhere to treatment. This has been tried through motivating, informing, alleviating material hardship or through multifaceted packages. Motivational interview techniques have been used as a method to increase patients' motivation during consultation (Allen, S & Dick, J, 2003). In the USA, specific interventions were tested to motivate the patient to adhere and take an active part in his/her own treatment (Cass, Talavera, Gresham, Moser, & Joy, 2005). The information given to TB patients was expected to help them to better know their disease, to better control the treatment process, and eventually to give them more voice in their interactions with healthcare providers. The creation of TB clubs, as a form of self-help group has been used to empower individual TB patients in Bangladesh (Akramul, I, 2005), India (Rangan, S, Gupte, H, & Bandiwadekar, A et al, 2003), Mexico (Alvarze Gordillo, JF & Dorantes Jimenez, JE, 2003). In Mongolia, in a context of TB stigma and low case detection, TB clubs involved both current and cured TB patients as well as community leaders (He, GX, Zhou, L, Xu, M, & Cheng, SM, 2005). In some cases, broad packages have been tried to strengthen patients' capacities. In Harlem, USA, a multifaceted approach using the informational-motivational-behaviour (IMB) as a frame for educating the patient and influence his/her behaviour change has been used to strengthen patients in adhering to latent TB treatment (Franks, J, Colson, P, Hirsch-Moverman, Y, & Charles, P, 2005).

The WHO guidelines on community involvement in TB care and prevention (World Health Organization, 2008) go beyond the notion of treatment adherence to focus on the more holistic issue of patient's support; this may have as an outcome not only better adherence to treatment, but also better awareness and the responsibility that the community takes for the health of its members. A supportive community influences and promotes more effectively healthy behaviours. TB health promotion efforts need to expand focus to cover a wider range of health behaviour that helps prevent and cure TB, including TB risk factors such as malnutrition, smoking, alcohol abuse, diabetes, as well as behaviour that prevent transmission (eg cough etiquette).



The common determinants of TB and other NCDs mean that action in these areas offers benefits beyond TB prevention and cure. An example of practical work in progress in this area is joint action on TB and tobacco, such as providing smoking cessation to TB patients (World Health Organization & International Union Against Tuberculosis and Lung Disease, 2007).

2. COMMUNITY EMPOWERMENT

There are a number of examples of effective programmes for empowering people to demand better TB care, access it, and complete treatment. There remains an un-met need for community empowerment that aims to address also the root determinants of TB (and of many other diseases), such as poor living and working conditions, and risk factors that impair the host's defence against TB infection (Lönnroth, Jaramillo, Williams, Dye, & Raviglione, 2009). TB patient groups in a number of countries have gone beyond a self-help model and have been instrumental in building collective capacity and power in what is often a vulnerable and marginalized social group. In Peru, a group which includes cured and active TB patients acts as an organization to defend patients' interests in hospitals and health centres as well as organizing supportive activities for new TB patients, with the spirit of restoring dignity and self-esteem (Macq, Torfoss, & Haileyesus Getahun, 2007). In Zambia former TB patients created health education committees holding debates about TB, thereby reducing the stigma linked to TB (Harries, A et al., 2001). In Nepal, TB patients are invited to take part in local DOTS committees, who organize DOTS provision locally (Bam, DS, Jha, KK, & Malla, P et al, 2004) and in Burkina Faso, TB patients are involved in local participatory meetings with other stakeholders, to remove local barriers to treatment for TB patients (Dembele, M, Sanou, A, Theobald, S, Dauby, C, & Macq, J, 2003). Female-managed village bank micro-credit schemes for families of TB patients undertaken in 96 villages from Cambodia to assist them in increasing their financial autonomy and income generation, achieved TB cure and compliance rates of >95% (Sok, AE Shapiro, & Goldfield, 2004). In more than 20 countries in Africa alone the wider local community is involved in the whole process of planning, implementing and evaluating TB-related interventions from their inception, including decision-making on how to address it at community level (World Health Organization, 2008).

3. STRENGTHENING HEALTH SYSTEMS

Health systems strengthening is one component of the global Stop TB Strategy (World Health Organization, 2006) and global TB control targets cannot be met unless the poorest segments of society have access to quality health services (Lönnroth et al., 2009). There has been substantial work over the past decades to integrate TB diagnosis and treatment into primary health care, and decentralize services. This has been done in most countries, but there is still scope for further integration, decentralization, patient centred care, and broader health systems strengthening actions (World Health Organization, 2008). In efforts to achieve the highest possible coverage for TB diagnosis and treatment, there have been efforts to re-orient healthcare and TB programs to focus more on TB patients' needs and capacities. In the USA, the Harlem surrogate family model DOT clinic is an on-site program, attracting patients to the clinic by providing consistent personal support, food, tokens and other forms of tangible assistance in a warm supportive atmosphere – with possible referrals to a substance abuse counsellor, social worker and health educator (El-Sadr W., Thomas G., & Desvarieux M., 1997). Patient incentives can strengthen performance of the overall health system for TB. As most TB patients live in poverty, enhancing patients' economic capacities can contribute their care and survival (Paton, Chua, Earnest, & Chee, 2004).

Food assistance is sometimes provided as part of TB care (Bond, Tihon, Muchimba, & Godfrey-Faussett, 2005; Augland, K, 2005) and various other types of incentives of have been provided to TB patients with mixed outcomes including toys for children (Cass et al., 2005), a symbolic action to honour patients (Rangan, S et al., 2003) or not having to stand in the long queue at the health centre (Demissie, H Getahun, & Lindtjørn, 2003). There remains potential for national TB programmes to further strengthen collaboration with other public health programmes, to jointly contribute to the prevention and treatment of priority conditions such as HIV, malnutrition, smoking, diabetes and alcohol abuse (Lönnroth et al., 2009).

4. PARTNERSHIPS AND INTERSECTORAL ACTION

Global partnerships have contributed to the scaling-up of tuberculosis control efforts. The Stop TB Initiative, a network of international organizations, countries, donors from the public and private sectors, governmental and nongovernmental organizations, was established following the meeting of the First ad hoc Committee on the Tuberculosis Epidemic held in London in March 1998 (World Health Organization, 2009). It produced the Amsterdam Declaration to Stop TB in March 2000, and led to the establishment of a Global Partnership to Stop TB and the setting of international targets for TB detection and treatment. The joining together of HIV/AIDS, tuberculosis and malaria in The Global Fund has been successful at mobilizing funding and has enabled massive scaling up of efforts to detect and treat tuberculosis, although there is scope to work towards further integration also with other disease programmes and co-delivery for other neglected diseases. One of the main focuses of the Global Stop TB Partnership now is to support partnering processes at country level as an opportunity to strengthen advocacy but also service delivery (e.g. harnessing and supporting the contribution of the non-state sector: about 20 national partnerships are operating, with varying clarity of scope, towards this direction). TB patients are important partners in TB health promotion, playing a strong role in promoting the rights of people affected by TB (Macq et al., 2007) and engaging in national and global activism together with NGOs. Worldwide, NGOs and patient activists promoted a 'TB Patient Charter' intended to empower people with TB and included as a key component in the Stop TB strategy (Macq et al., 2007; Case, G et al, 2005). In HIV-prevalent settings, more and more people living with HIV activists are taking on TB as a key area of advocacy and activism, and this partnership has resulted in changes to the country-level policy environment and implementation of collaborative TB/HIV activities (Macq et al., 2007). Partnering for improved access to TB diagnosis and treatment is essential, but is not enough - there is also the need to partner with other public health programmes, and with partners outside the health sector, in order to address determinants and risk factors.

PUTTING IT ALL TOGETHER: CASE-STUDY OF AN INTEGRATED APPROACH

In 1994, the Cambodian Health Committee (CHC), a nongovernmental organization, developed a community-based approach to TB, in one of Cambodia's poorest provinces. which simultaneously incorporated the major health promotion tracks (Thim et al., 2004). The programme sought to improve **health literacy** by pretreatment patient education, and used patient supporters to supervise treatment, a treatment contract, nutritional supplementation, and surprise home visits as strategies to encourage **healthy behaviour**. Food supplementation, in an **inter-sectoral collaboration** with the World Food Program, was initiated as an incentive for all TB patients to pick up their monthly supply of medicines. In addition to delivering DOTS through existing

hospitals and clinics, the programme involved the **strengthening of health systems** locally by introducing mobile health teams to actively detect patients in 2 districts not served by the existing services and to provide TB therapy to patients in their homes. A **partnership** with OxFAM America and later with Catholic Relief Services, enabled CHC to initiate parallel poverty reduction and **community empowerment** efforts involving the establishment of community-controlled village banks through a microfinance scheme. Interest charged on funds provided through village banks established a Village Health Fund and enabled the training Village Health Agents, further **building community capacity** and **strengthening the health system**. These agents conducted community education and assisted in patient detection and follow-up. Loan repayment and TB cure rates approached 100% among 590 families benefiting from participation in village banks. This approach could be further enhanced by giving increased attention to TB prevention and addressing determinants, particularly those determinants shared with other priority conditions.

REFERENCES

- Akramul, I. (2005). Community participation in TB control as part of social development: the experience of BRAC. *International Journal of Tuberculosis and Lung Disease*, 9(11S1), 0S37.
- Allen, S, & Dick, J. (2003). The potential of brief motivational interviewing to enhance tuberculosis care. *International Journal of Tuberculosis and Lung Disease*, 7(11S1), S190-191.
- Alvarze Gordillo, JF, & Dorantes Jimenez, JE. (2003). Educational strategy for improving patient compliance with the tuberculosis treatment regimen in Chiapas, Mexico. *Revista Panamericana De Salud Publica*, 14, 402-408.
- Augland, K. (2005). TB-Patient Evaluation Penduka TB-Training Project. Norwegian Association of Heart and Lung Patients, Oslo, Norway.
- Bam, DS, Jha, KK, & Malla, P et al. (2004). A shared responsibility for TB control: DOTS committees succeed in Nepal. *International Journal of Tuberculosis and Lung Disease*, 8(11S1), 0S176.
- Bond, V. A., Tihon, V., Muchimba, M., & Godfrey-Faussett, P. (2005). 'Kuyendela odwala TB'--visiting TB patients: the widening role of home-based care organisations in the management of tuberculosis patients in Lusaka, Zambia. *The International Journal of Tuberculosis and Lung Disease: The Official Journal of the International Union Against Tuberculosis and Lung Disease*, 9(3), 282-287.
- Case, G et al. (2005). Positively empowered partnerships (PEP), participatory patient involvement in prevention, detection and adherence: new tools in scaling up TB, TB-HIV and TB-MDR care. *International Journal of Tuberculosis and Lung Disease*, 9(11S1), 0S46.
- Cass, A. D., Talavera, G. A., Gresham, L. S., Moser, K. S., & Joy, W. (2005). Structured behavioral intervention to increase children's adherence to treatment for latent tuberculosis infection. *The International Journal of Tuberculosis and Lung Disease: The Official Journal of the International Union Against Tuberculosis and Lung Disease*, 9(4), 415-420.
- Dembele, M, Sanou, A, Theobald, S, Dauby, C, & Macq, J. (2003). Developing a patient centred approach in case-management of tuberculosis (TB) patients in Burkina Faso. *International Journal of Tuberculosis and Lung Disease*, 7(11S1), 0S128.
- Demissie, M., Getahun, H., & Lindtjørn, B. (2003). Community tuberculosis care through "TB clubs" in rural North Ethiopia. *Social Science & Medicine* (1982), 56(10), 2009-2018.
- El-Sadr W,, Thomas G,, & Desvarieux M, (1997). Pathways to Completion Study: Behavioral Interventions for TB Control. *American Journal of Respiratory and Critical Care Medicine* 155(4):A566. *American*

Journal of Respiratory and Critical Care Medicine, 155(4), A566.

- Franks, J, Colson, P, Hirsch-Moverman, Y, & Charles, P. (2005). Adherence to Treatment for Latent Tuberculosis Infection: A Manual for Health Care Providers. Felton National Tuberculosis Center, New York.
- Harries, A, Kenyon, T, Maher, D, Floyd, K, Nyarko, E, & Nkhoma, W. (2001). Community TB Care in Africa. A Collaborative Project Coordinated by WHO. Report on a 'Lessons Learned' Meeting in Harare, Zimbabwe, 27-29 September 2000 (WHO/CDS/TB/2001.291). WHO, Geneva.
- He, GX, Zhou, L, Xu, M, & Cheng, SM. (2005). Implementing DOTS strategy through tuberculosis clubs. *International Journal of Tuberculosis and Lung Disease*, 9(11S1), S135-S136.
- Lönnroth, K, Jaramillo, E, Williams, B. G., Dye, C., & Raviglione, M. (2009). Drivers of tuberculosis epidemics: The role of risk factors and social determinants. *Social Science & Medicine*, 68(12), 2240-2246. doi: 10.1016/j.socscimed.2009.03.041
- Macq, J., Torfoss, T., & Getahun, H. (2007). Patient empowerment in tuberculosis control: reflecting on past documented experiences. *Tropical Medicine & International Health: TM & IH*, 12(7), 873-885. doi: 10.1111/j.1365-3156.2007.01858.x
- Paton, N. I., Chua, Y., Earnest, A., & Chee, C. B. E. (2004). Randomized controlled trial of nutritional supplementation in patients with newly diagnosed tuberculosis and wasting. *The American Journal of Clinical Nutrition*, 80(2), 460-465.
- Rangan, S, Gupte, H, & Bandiwadekar, A et al. (2003). Tackling tuberculosis in urban areas: experiences from Mumbai city. *Health Administrator*, 15, 72-79.
- Sok, T, Shapiro, A, & Goldfield, A. (2004). Microfinance results in high tuberculosis cure rates and poverty reduction in rural Cambodia. *International Journal of Tuberculosis and Lung Disease*, 8(11-S1), OS175.
- Thim, S., Sath, S., Sina, M., Tsai, E. Y., Delgado, J. C., Shapiro, A. E., et al. (2004). A Community-Based Tuberculosis Program in Cambodia. *JAMA*, 292(5), 566-b-568. doi: 10.1001/jama.292.5.566-c
- World Health Organization. (2008). Community involvement in tuberculosis care and prevention: towards partnerships for health: guiding principles and recommendations based on a WHO review. World Health Organization, Geneva.
- World Health Organization. (2006). The Stop TB Strategy: Building on and enhancing DOTS to meet the TB-related Millennium Development Goals. World Health Organization, Geneva. Retrieved from http://www.who.int/tb/publications/2006/stop_tb_strategy.pdf
- World Health Organization. (2008). Stop TB policy paper: contributing to health system strengthening: guiding principles for national tuberculosis programmes. World Health Organization, Geneva.
- World Health Organization. (2009). About the Stop TB Partnership. Retrieved August 9, 2009, from http://www.stoptb.org/stop_tb_initiative/
- World Health Organization, & International Union Against Tuberculosis and Lung Disease. (2007). A WHO/The Union Monograph on TB and Tobacco Control: Joining efforts to control two related global epidemics. World Health Organization, Geneva.
- Image from: Iecercle <http://www.flickr.com/photos/lecercle/288387653/>

MALARIA

1. INDIVIDUAL EMPOWERMENT - HEALTH LITERACY AND HEALTH BEHAVIOUR

Insecticide-treated bed-nets (ITNs) are a key strategy in malaria prevention, and health promotion efforts in this area include interventions to improve access to nets (discussed under health systems strengthening) and interventions to encourage their proper and regular use. Social marketing campaigns have been successfully used to promote demand for the use of ITNs (Qazi & Shaikh, 2007), although messages need to be tailored to community beliefs, for example communities which do not believe malaria to be related to mosquitoes (Minja et al., 2001). There is increasing evidence to demonstrate that combining mosquito net distribution with follow-on “hang up” campaigns carried out by trained community volunteers significantly reduces incidence of malaria. Combining distribution with follow on home-visiting support and training is especially crucial to help families overcome any social or cultural barriers that could prevent the effective hanging and use of nets, and to reach the most vulnerable groups (such as those living in remote areas, refugees, people affected by stigma and discrimination) who are less likely to be reached by mass media (International Federation of Red Cross and Red Crescent Societies, 2009). Health promotions interventions to influence health behaviour have also been used in relation to malaria treatment. Large shifts in behaviour were observed in the ‘shopkeeper training’ intervention in Kenya, which concentrated on developing the capacity of shopkeepers to give advice and correct treatment for malaria after research showing that the majority of anti-malarial drugs in the community were being provided through shops and not through health facilities (Marsh et al., 1999; H. A. H. A. Williams & Jones, 2004).

2. COMMUNITY EMPOWERMENT

In campaigns to reduce delays in commencing treatment for children with malaria, partner communities’ participation in an intervention greatly increases the chance of success (Kidane & Morrow, 2000; Pagnoni, Convelbo, Tiendrebeogo, Cousens, & Esposito, 1997; D Houeto, D’Hoore, Ouendo, Charlier, & A Deccache, 2007). Cultural knowledge about malaria symptoms, cultural meanings associated with febrile illness, gender relations, and patterns of communication between health care providers and mothers significantly influence whether or not families seek



health care for febrile children (Kamat, 2006; Tumwesigire & Watson, 2002), so a collaborative approach that engages in dialogue with communities and works to build mutual comprehension is likely to have a greater impact in reducing the incidence of malaria (D Houeto et al., 2007). After the failure of a number of standard interventions, a community empowerment approach helped a community in rural Benin develop programmes which reduced child malaria deaths (David Houeto & Alain Deccache, 2007). Women in a community empowerment programme in Thailand developed family malaria protection plans, provided malaria education to community members, a mosquito-control campaign, scaled-up insecticide-impregnated bed nets, instituted malaria control among foreign labourers, as well as activities to raise income for their families (Geounuppakul, Butraporn, Kunstadter, Leemingsawat, & Pacheun, 2007). Another programme in Papua New Guinea empowered community members of to take responsibility for the acquisition, distribution and effective use of 400 bed nets in the village, and led to a significant decrease in the incidence malaria-related mortality and morbidity (Fitzpatrick & Ako, 2007).

3. STRENGTHENING HEALTH SYSTEMS

Malaria is easily curable with access to medicines yet many still do not have access to these life saving drugs due to weak health systems, and difficulties with distribution in remote areas which leads to stock outs at the health facility level. The "SMS for Life" pilot project in Tanzania (Roll Back Malaria Initiative, 2009) is a direct response to this 'stock out' problem. Provided with training, mobile phones and phone credit, health workers and pharmacists in all health facilities send a weekly SMS with their current stock numbers of antimalarial drugs to the District Medical Officer, who is able to monitor stock levels at a glance through the use of electronic mapping technology. This helps avoid stock outs, ultimately reducing the number of deaths from malaria. The pivotal role of health systems in malaria treatment and prevention was recognized at the Abuja Roll Back Malaria Summit in 2000, which resolved in the Abuja Declaration "to initiate appropriate and sustainable action to strengthen health systems" (World Health Organization, 2006). A share of funding from the Global Fund against AIDS, TB and Malaria, and other new initiatives is devoted to general strengthening of health systems, including health management information systems, human resource development and capital support in addition to the recurrent support for commodities provided by such initiatives. The integration of malaria vector control and personal protection into the health system through innovative linkages to ongoing health programmes and campaigns is likely to lead to strong synergies, economies, and more rapid health system strengthening compared to new vertical programmes (World Health Organization, 2006). Successful examples of this include piggy-backing the distribution of ITNs through antenatal care or alongside immunization campaigns for measles and polio (International Federation of Red Cross and Red Crescent Societies, 2009). Malaria control programmes can also contribute to strengthening health systems through human resource development, including qualification in vector control and participation in operational research, career and training opportunities (World Health Organization, 2006).

4. PARTNERSHIPS AND INTERSECTORAL ACTION

International partnerships have been critical in scaling up global action on malaria treatment and prevention. The Roll Back Malaria (RBM) Partnership was launched in 1998 by WHO, UNICEF, UNDP and the World Bank, in an effort to provide a coordinated global response to the disease, and now consists of more than 500 partners, including malaria endemic countries, their bilateral

and multilateral development partners, the private sector, nongovernmental and community-based organizations, foundations, and research and academic institutions (Dalberg: Global Development Advisors., 2009). The RBM partners work together to scale up malaria-control efforts at country level, and coordinate their activities to avoid duplication and fragmentation, and to ensure optimal use of resources. The Global Fund to Fight AIDS, Tuberculosis and Malaria is the world's largest external source of finance for malaria control programs, providing two-thirds of all international financing. The Global Fund has approved grants with a total value of US\$ 2.6 billion over five years to 117 programs in 85 countries to support aggressive interventions against malaria, including distribution of ITNs and artemisinin-based combination therapies (ACTs) (The Global Fund to Fight AIDS, Tuberculosis and Malaria, 2006). Other multi-agency international partnerships have contributed to the advancement of malaria research, and the negotiation of lower cost malaria medications (Aregawi, Cibulskis, Otten, R. Williams, & Dye, 2008). One such example is the Affordable Medicines Facility - Malaria (AMFm), in which the Global Fund (with the support of other partners) has negotiated with drug manufacturers, and pays a co-payment towards the cost of ACTs to lower the price of these recommended first line anti-malarials in the private sector, where 60% of malaria patients obtain their medications, in order to reduce the reliance on cheaper but less effective alternatives (The Global Fund to Fight AIDS, Tuberculosis and Malaria, 2009). Action outside the health sector to remove barriers to the uptake of malaria prevention strategies has included lobbying for reduction or waiver of taxes and tariffs on mosquito nets, netting materials and insecticides and stimulating local ITN industries. Intersectoral collaboration has played an integral role in vector control measures for malaria prevention, including environmental modification, larval control (World Health Organization, 2006). There are increasing efforts to highlight the links and co-benefits between malaria and agricultural practices and climate change (Hawkes & Ruel, 2006).

PUTTING IT ALL TOGETHER: CASE-STUDY OF AN INTEGRATED APPROACH

A pilot project in eight Central American countries demonstrated the effectiveness of multi-sectoral governmental and community mobilization in achieving key development goals such as reduction of malaria. The *Regional Project of Action and Demonstration of Sustainable Alternatives to DDT for Malaria Vector Control in Mexico and Central America* (Health Promotion, WHO, 2009) was led by PAHO-GEF-UNEP and was implemented in partnership with the Ministries of Health in Belize, Guatemala, Costa Rica, El Salvador, Honduras, Nicaragua, Panama and Mexico between 2002 - 2008.

The project involved an integrated approach to health promotion, using the following strategies: (i) Involving local municipalities in coordinating and spearheading the local government's response to malaria control (ii) Creating a cadre of community leaders (iii) Fostering community engagement in keeping dwellings and surroundings clean and mobilizing families for community action, thereby creating awareness (iv) Ensuring national governments provide technical, administrative and political leadership.

Promoting health literacy and healthy behaviours - Individuals and families were motivated to keep their environment free of collected water, manage their drainage systems, cover water storage containers, keep their houses, patios and surroundings clean. The community also participated in community cleanings and other field activities. These actions by the community members reduced the vector density and therefore malaria cases. They also helped reduce diseases caused by other vectors and transmitters of infectious diseases such as rats, snakes and

flies. The community motivation remained high when they saw the national authorities and local leaders working in effective alliances and keeping their promises.

Enhancing community capacity and leadership - Community leaders, identified and trained by the project, played a key role in linking the community with the project. They would mobilize the community members to participate in cleaning streets, drainage channels, breeding sites and other public areas, and served as focal points for the project personnel. The local committees would often be mainly women, and consequently entire families would be involved in these activities. Existing malaria volunteers were incorporated as leaders, expanding their surveillance role to include education and awareness raising. There was an increase of 63% in malaria volunteers in the demonstration sites between 2004 and 2007. Community leaders played a significant role in generating an overall attitude of tolerance and a spirit of co-operation. These changes resulted in improvements in the community's organizational capacity, sense of solidarity and ability to take initiative. It reduced their dependency on public institutions to implement interventions. In Honduras, the community cleaning brigades continued their activity every month regardless of the presence of the technical health personnel.

Strengthening health systems - The local municipalities who till then believed that malaria control was the responsibility of the Ministry of Health became engaged at an unprecedented level. Not only did they become directly involved through constructing drainage systems, widening river beds and improving latrines and houses, by ensuring logistical support or providing transportation and food for community members involved in community activities, they also became aware of the critical role of other sectors in ensuring good health, and the development of health policies. This strengthened their capacity to build holistic public policies for improving health. Additionally, the project improved coordination between the local authorities and their national counterparts on other health issues such as illegal landfills, access to drinking water, violations of environmental laws.

Inter-sectoral collaboration - Several public institutions, ministries, universities and disease control programs formed national inter-sectoral committees that designed strategies and models which the local committees adapted to the local context. Schools, NGOs, education and environment personnel, and the private sector became involved at the municipal level. Alliances with local committees paved the way for collaboration on other community health issues as well. The project also served to strengthen technical capabilities of national governments such as in malaria risk evaluation, national and regional surveillance systems, laboratory infrastructure and geographical information system in relation to malaria control and prevention.

Building sustainable structures and financing for health promotion - In some pilot communities, local governments established budgets specifically to finance malaria prevention, allotted funds to support health personnel working on malaria and dengue, or signed agreements with public and private institutions. El Salvador created a budget for 3 years for the cleaning and drainage of rivers. These actions indicated a trend towards institutionalisation of malaria prevention and control activities which are likely to make them sustainable even with changes in governments.

The demonstration sites saw a reduction of 63% in malaria cases, from 2004 to 2007 and a 86.2% reduction in cases caused by *Plasmodium Falciparum*, the parasite that causes the greatest mortality and morbidity by malaria worldwide.

REFERENCES

- Aregawi, M., Cibulskis, R., Otten, M., Williams, R., & Dye, C. (2008). *World Malaria Report 2008*. World Health Organization.
- Dalberg: Global Development Advisors. (2009). Independent Evaluation of the Roll Back Malaria Partnership 2004-2008. Geneva. Retrieved from <http://www.rollbackmalaria.org/docs/RBMexternalEvaluation2009.pdf>.
- Fitzpatrick, J., & Ako, W. Y. (2007). Empowering the initiation of a prevention strategy to combat malaria in Papua New Guinea. *Rural and Remote Health*, 7(2), 693.
- Geounuppakul, M., Butraporn, P., Kunstadter, P., Leemingsawat, S., & Pacheun, O. (2007). An empowerment program to enhance women's ability to prevent and control malaria in the community, Chiang Mai Province, Thailand. *The Southeast Asian Journal of Tropical Medicine and Public Health*, 38(3), 546-559.
- Hawkes, C., & Ruel, M. (2006). The links between agriculture and health: an intersectoral opportunity to improve the health and livelihoods of the poor. *Bulletin of the World Health Organization*, 84(12), 984-990.
- Health Promotion, WHO. (2009). Controlling malaria through inter-sectoral action in Meso-america. World Health Organization, Geneva.
- Houeto, D., D'Hoore, W., Ouendo, E., Charlier, D., & Deccache, A. (2007). Malaria control among children under five in sub-Saharan Africa: the role of empowerment and parents' participation besides the clinical strategies. *Rural and Remote Health*, 7(4), 840.
- Houeto, D., & Deccache, A. (2007). Child malaria in sub-saharan Africa: effective control and prevention require a health promotion approach. *International Quarterly of Community Health Education*, 28(1), 51-62. doi: 10.2190/IQ.28.1.e.
- International Federation of Red Cross and Red Crescent Societies. (2009). The winning formula to beat malaria: World Malaria Day Report. International Federation of Red Cross and Red Crescent Societies. Retrieved from <http://www.ifrc.org/what/health/diseases/malaria/156800-Malaria-Report-EN-LR.pdf>.
- Kamat, V. R. (2006). "I thought it was only ordinary fever!" Cultural knowledge and the micropolitics of therapy seeking for childhood febrile illness in Tanzania. *Social Science & Medicine* (1982), 62(12), 2945-2959. doi: 10.1016/j.socscimed.2005.11.042.
- Kidane, G., & Morrow, R. H. (2000). Teaching mothers to provide home treatment of malaria in Tigray, Ethiopia: a randomised trial. *Lancet*, 356(9229), 550-555. doi: 10.1016/S0140-6736(00)02580-0.
- Marsh, V. M., W. M. Mutemi, J. Muturi, A. Haaland, W. M. Watkins, G. Otieno, et al. (1999). Changing home treatment of childhood fevers by training shop keepers in rural Kenya. *Tropical Medicine & International Health*, 4(5), 383-389. doi: 10.1046/j.1365-3156.1999.00403.x.
- Minja, H., Schellenberg, J. A., Mukasa, O., Nathan, R., Abdulla, S., Mponda, H., et al. (2001). Introducing insecticide-treated nets in the Kilombero Valley, Tanzania: the relevance of local knowledge and practice for an information, education and communication (IEC) campaign. *Tropical Medicine & International Health: TM & IH*, 6(8), 614-623.
- Pagnoni, F., Convelbo, N., Tiendrebeogo, J., Cousens, S., & Esposito, F. (1997). A community-based programme to provide prompt and adequate treatment of presumptive malaria in children. *Transactions of the Royal Society of Tropical Medicine and Hygiene*, 91(5), 512-517.

- Qazi, S., & Shaikh, B. T. (2007). Social marketing of insecticide-treated bednets: the case for Pakistan. *Eastern Mediterranean Health Journal*, 13(2), 449-456.
- Roll Back Malaria Initiative. (2009). SMS for Life: 'Improving medicine access through innovation' An RBM initiative. Retrieved October 12, 2009, from <http://www.rollbackmalaria.org/psm/smsWhatIsIt.html>.
- The Global Fund to Fight AIDS, Tuberculosis and Malaria. (2006). A Force for Change: The Global Fund to Fight AIDS, Tuberculosis and Malaria. Malaria Information Sheet. Retrieved from http://www.theglobalfund.org/documents/publications/factsheets/malaria_information_sheet_en.pdf.
- The Global Fund to Fight AIDS, Tuberculosis and Malaria. (2009, July 28). Affordable Medicines Facility - Malaria. Frequently Asked Questions. Retrieved from http://www.theglobalfund.org/documents/amfm/AMFmFAQs_en.pdf.
- Tumwesigire, S., & Watson, S. (2002). Health seeking behavior by families of children suspected to have malaria in Kabale: Uganda. *African Health Sciences*, 2(3), 94-98.
- Williams, H. A. H. A., & Jones, C. O. H. (2004). A critical review of behavioral issues related to malaria control in sub-Saharan Africa: what contributions have social scientists made? *Social Science & Medicine* (1982), 59(3), 501-523. doi: 10.1016/j.socscimed.2003.11.010.
- World Health Organization. (2006). *Malaria vector control and personal protection: report of a WHO study group*. WHO technical report series; no. 936. World Health Organization, Geneva.
- Image from: Ixtla <http://www.flickr.com/photos/ixtla/3176519971/>

MATERNAL MORTALITY

1. INDIVIDUAL EMPOWERMENT - HEALTH LITERACY AND HEALTH BEHAVIOUR

Efforts to increase community awareness about obstetric complications, and encourage behaviour change in seeking childbirth care have been effective (Campbell & Graham, 2006; Moran et al., 2006). Many women still do not have the final say in decisions about accessing health care for themselves (United Nations Development Fund for Women, 2008), so the Prevention of Maternal Mortality Group in Nigeria promoted childbirth health awareness focusing particularly on male decision makers, using a range of media such as puppets and video (Lee et al., 2009). In Burkina Faso, work was undertaken with local chiefs and traditional leaders to heighten their awareness of and concern about maternal mortality. This led to one local chief regularly attending antenatal clinics, to urge women to return to the facility for childbirth care, doubling the use of skilled care at birth over a 3 year period. In Nepal, outreach health worker visits and efforts to raise the educational status of women were both strategies associated with increased use of maternal health services, but radio programmes and other mass media information were only partially successful (Sharma, Sawangdee, & Sirirassamee, 2007). Individual empowerment has also been used to work with women and their families to develop birth emergency preparedness plans, and these have been associated with some changes in behaviour, such as setting aside money for the birth, transport arrangements and the use of birth planning cards (World Health Organization, 2006). The use of financial incentives can influence health behaviour, and conditional cash transfers have been effective in increasing utilisation of prenatal care services and rates of institutional delivery (Lee et al., 2009)

2. COMMUNITY EMPOWERMENT

Interventions to reduce maternal mortality operate at a number of levels: preventing unwanted pregnancy; access to quality maternity care including prenatal, childbirth, emergency obstetrical care and post partum care; preventing complications, and preventing death when complications occur. The degree to which women are empowered to exercise control over their own lives, including when and whom they marry, use of family planning and birth spacing are all directly related to their chance of dying in pregnancy (Chowdhury, Ahmed, Kalim, & Marge Koblinsky,



2009). The status of women in a society influences other determinants of maternal mortality, such as low education levels, malnutrition and access to ante-natal, childbirth and emergency obstetric care (M A Koblinsky, Tinker, & Daly, 1994). In Nepal, reductions in maternal mortality were seen after community-based participatory interventions. A female facilitator (non-health professional) convened women's group meetings monthly to raise awareness around childbirth and increase use of care, supported by concurrent efforts to increase the quality of the maternity care services (D. S. Manandhar et al., 2004). Community initiatives to pool funds in order to increase access to cash to pay for transport have been used in Nepal and Tanzania, where transport costs are responsible for half the expense of a normal childbirth (Jo Borghi, Ensor, Somanathan, Lissner, & Mills, 2006). In rural Pakistan, Lady Health Workers along with community volunteers established village health committees and led 3-monthly group educational sessions (Bhutta et al., 2008). This led not only to increased demand for skilled birth care, but to broader community action in a number of villages, including the establishment of emergency funds for transport and hospital fees. The Warmi project in rural Bolivia developed the "Community Action Cycle" methodology and worked with women's organizations and community members in rural communities to galvanize women around health issues (Lee et al., 2009). The success of such schemes is dependent on the degree of community mobilisation, which is more likely in communities with strong leadership (Jo Borghi et al., 2006; Essien et al., 1997; Chiwuzie et al., 1997). The integration of such schemes in existing credit schemes operated by women's groups might offer a means of ensuring their sustainability, generating larger pools and contributing to overall community empowerment activities.

3. STRENGTHENING HEALTH SYSTEMS

Most maternal deaths occur during labour, childbirth, or the first 24 hours postpartum, so strengthening health systems to provide access to appropriate health centre intrapartum-care offers the best opportunity to bring down high rates of maternal mortality (Campbell & Graham, 2006). Financial barriers are a major reason for not accessing obstetric care, and efforts to promote universal access to health care, such as removal of user charges reduces this barrier (Jo Borghi et al., 2006). In areas where facility based birth is currently difficult, maternal survival can be improved by the posting of midwives at village level, if they are given proper training, means, supervision, and back-up (V Fauveau, Stewart, Khan, & Chakraborty, 1991), and incentives have been used effectively to encourage midwife retention in rural areas (Jo Borghi et al., 2006). Rights-based approaches have been used effectively to improve existing maternal health systems, for example in Peru, to tackle a failing referral system in which poor clinical decision-making and slow action were reinforced by mistrust and condescension across different levels of providers. The introduction of a referral/counter-referral system, as well as training, clear protocols, two-way radios, and ambulances helped improve the situation, ensuring that staff at all levels saw themselves as part of a team which was working to improve maternal-health outcomes, resulting in met need for emergency obstetric care rising from 30% to 84% in 4 years (Kayongo et al., 2006). Maternal health programmes that are well implemented also strengthen the broader health system with collateral benefits for many other health disorders, for example, referral systems help victims of road accidents reach emergency care; blood transfusion services supply blood for all surgeries; improvement in facility management benefits the whole site (Freedman et al., 2007). Health systems also need to be acceptable and culturally appropriate to women. The use of health facilities for birth was low among poor, indigenous women in rural Peru, partly due to cultural insensitivities of the health care system (Gabrysch et al., 2009). A culturally

appropriate delivery care model was developed, including features such as a rope and bench for vertical delivery position, inclusion of family and traditional birth attendants in the delivery process and use of the Quechua language. The proportion of births delivered in the health facility increased from 6% in 1999 to 83% in 2007 with high satisfaction levels, indicating that modern medical and traditional elements can be integrated to offer services that meet the needs of indigenous women.

4. PARTNERSHIPS AND INTERSECTORAL ACTION

A number of global partnerships on maternal survival have been successful at generating the evidence, tools, and links across countries to promote maternal health. The Partnership for Maternal, Newborn & Child Health (PMNCH) is a global partnership launched in 2005 to accelerate efforts towards achieving MDGs 4 and 5. The PMNCH unites the maternal, newborn and child health communities into an alliance of about 280 members to intensify and harmonize national, regional and global action (The Partnership for Maternal, Newborn & Child Health, 2009). Other international partnerships for maternal health include the Averting Maternal Death and Disability Program at the Mailman School of Public Health, Columbia University (which with UN, non-governmental, and governmental partners has worked in some 50 countries in Asia, Africa, and Latin America on research, advocacy, policy analysis, and programme support); Impact (a global safe motherhood research initiative coordinated by the University of Aberdeen with a collaborative network of scientists spread across seven research institutions); the Skilled Care Initiative of Family Care International and the ACCESS Program (which works to expand coverage, access, and use of maternal and neonatal health services, led by USAID with governments, non-governmental organisations, local communities, and partner agencies in developing countries) (Freedman et al., 2007). Partnerships such as these have been helpful in mobilizing funds and political will to address maternal survival (Thompson, 2007). Partnerships are also important at a national and regional level, as many other sectors have key roles in improving maternal health. A National Safe Motherhood Conference held in Mexico in 1993 provided the stimulus and neutral ground to bring together a number of intersectoral partners around the issue of safe motherhood (del Carmen Elu & Murdock, M, 2003). This led to the establishment of the Mexico National Safe Motherhood Committee, which created a non-hierarchical setting for Ministry of Health to engage with partners it had not previously worked closely with, including grassroots women's groups, NGOs, and other government departments relating to gender and women's affairs. Intersectoral action has also involved legislative changes to improve access to safe abortion such as in South Africa (Campbell & Graham, 2006).

PUTTING IT ALL TOGETHER: CASE-STUDY OF AN INTEGRATED APPROACH

As part of a broader strategy for improving clinical care and policy in relation to maternal and newborn health, the Making Pregnancy Safer department at WHO developed a framework specifically for strengthening care in the home and the community response. The "IFC" Framework (World Health Organization, 2003) aims to **empower individuals, families and communities** to increase control over maternal and newborn health, and to **improve access to quality health services**

El Salvador adopted the IFC framework and initiated pilot programmes in Izalco and Nahuizalco, zones with high maternal mortality (Health Promotion, WHO, 2009). Local IFC committees were

established, with the director of health services, representatives of education, transport, police and other sectors, and community leaders. The committee conducted a process of consultation that ensured different perspectives on issues related to maternal and newborn health were heard and solutions identified. The National IFC committee provided support to the local committee. A key process was the Participatory Community Assessment (PCA) in which a series of roundtable meetings were held, each with different stakeholders - women of reproductive age; mothers, grandmothers, mothers-in-law; male partners; health-care providers; community leaders and institutional stakeholders. These were followed by a multi-stakeholder roundtable with representatives of earlier roundtables, in which a variety of long and short-term solutions to priority problems were identified. These included birth and emergency preparedness, and health education strategies for maternal and newborn health; the role of men in supporting their wives/companions for improved MNH; transport schemes with support from transport unions and police, and road repairs; increased engagement of teachers, schools and community leaders; health services improvement such as reprogramming health staff time, ensuring visits by skilled providers for maternity care on pre-defined days; introducing user satisfaction surveys and community participation in quality improvement. This process of analysis and consensus building has helped develop community capacity, ownership and leadership and improve relations with the health services. Based on these discussions, an action plan was developed by the local committee with support from the national and district levels, and implemented together with the different local actors.

There was an increase in uptake of antenatal care services and more births were attended by skilled personnel in this period. Changes in the health centre services were instated, such as increased visits from the obstetrician-gynaecologist from the tertiary hospital. Activities were designed with men's clubs to improve awareness of danger signs and increase support given to women, and services report an increase in men attending ante-natal care visits with their partners. The police now assist in transporting women and newborns in births and emergencies. Zero maternal deaths were reported in a one year period in 2008 in Izalco and Nahuizalco, which until then had been zones of high maternal mortality.

REFERENCES

- Bhutta, Z. A., Memon, Z. A., Soofi, S., Salat, M. S., Cousens, S., & Martines, J. (2008). Implementing community-based perinatal care: results from a pilot study in rural Pakistan. *Bulletin of the World Health Organization*, 86(6), 452-459.
- Borghi, J., Ensor, T., Somanathan, A., Lissner, C., & Mills, A. (2006). Mobilising financial resources for maternal health. *The Lancet*, 368(9545), 1457-1465. doi: 10.1016/S0140-6736(06)69383-5
- Campbell, O. M., & Graham, W. J. (2006). Strategies for reducing maternal mortality: getting on with what works. *The Lancet*, 368(9543), 1284-1299. doi: 10.1016/S0140-6736(06)69381-1
- del Carmen Elu, M., & Murdock, M. (2003). Mexico's National Safe Motherhood Committee: building commitment and sustaining linkages. Case Study No. 11. In S. Crump (Ed.), *Shaping policy for maternal and newborn health: a compendium of case studies*. Baltimore: JHPIEGO.
- Chiwuzie, J., Okojie, O., Okolocha, C., Omorogbe, S., Oronsaye, A., Akpala, W., et al. (1997). Emergency loan funds to improve access to obstetric care in Ekpoma, Nigeria. *International Journal of Gynecology & Obstetrics*, 59(Supplement 2), S231-S236. doi: 10.1016/S0020-7292(97)00170-7
- Chowdhury, M. E., Ahmed, A., Kalim, N., & Koblinsky, M. (2009). Causes of maternal mortality decline in

- Matlab, Bangladesh. *Journal of Health, Population, and Nutrition*, 27(2), 108-123.
- Essien, E., Ifenne, D., Sabitu, K., Musa, A., Alti-Mu'azu, M., Adidu, V., et al. (1997). Community loan funds and transport services for obstetric emergencies in northern Nigeria. *International Journal of Gynecology & Obstetrics*, 59(Supplement 2), S237-S244. doi: 10.1016/S0020-7292(97)00171-9
- Fauveau, V., Stewart, K., Khan, S. A., & Chakraborty, J. (1991). Effect on mortality of community-based maternity-care programme in rural Bangladesh. *Lancet*, 338(8776), 1183-1186.
- Freedman, L. P., Graham, W. J., Brazier, E., Smith, J. M., Ensor, T., Fauveau, V., et al. (2007). Practical lessons from global safe motherhood initiatives: time for a new focus on implementation. *The Lancet*, 370(9595), 1383-1391. doi: 10.1016/S0140-6736(07)61581-5
- Gabrysch, S., Lema, C., Bedriñana, E., Bautista, M. A., Malca, R., Campbell, O. M., et al. (2009). Cultural adaptation of birthing services in rural Ayacucho, Peru, 87(9), 724-729. doi: 10.2471/BLT.08.057794
- Health Promotion, WHO. (2009). Empowering women, families and communities to improve maternal and newborn health. World Health Organization, Geneva.
- Kayongo, M., Esquiche, E., Luna, M., Frias, G., Vega-Centeno, L., & Bailey, P. (2006). Strengthening emergency obstetric care in Ayacucho, Peru. *International Journal of Gynecology & Obstetrics*, 92(3), 299-307. doi: 10.1016/j.ijgo.2005.12.005
- Koblinsky, M. A., Tinker, A., & Daly, P. (1994). Programming for safe motherhood: a guide to action. *Health Policy and Planning*, 9(3), 252-266.
- Lee, A. C., Lawn, J. E., Cousens, S., Kumar, V., Osrin, D., Bhutta, Z. A., et al. (2009). Linking families and facilities for care at birth: What works to avert intrapartum-related deaths? *International Journal of Gynaecology and Obstetrics: The Official Organ of the International Federation of Gynaecology and Obstetrics*. doi: 10.1016/j.ijgo.2009.07.012
- Manandhar, D. S., Osrin, D., Shrestha, B. P., Mesko, N., Morrison, J., Tumbahangphe, K. M., et al. (2004). Effect of a participatory intervention with women's groups on birth outcomes in Nepal: cluster-randomised controlled trial. *Lancet*, 364(9438), 970-979. doi: 10.1016/S0140-6736(04)17021-9
- Moran, A. C., Sangli, G., Dineen, R., Rawlins, B., Yaméogo, M., & Baya, B. (2006). Birth-preparedness for maternal health: findings from Koupéla District, Burkina Faso. *Journal of Health, Population, and Nutrition*, 24(4), 489-497.
- Sharma, S. K., Sawangdee, Y., & Sirirassamee, B. (2007). Access to health: women's status and utilization of maternal health services in Nepal. *Journal of Biosocial Science*, 39(5), 671-692. doi: 10.1017/S0021932007001952
- The Partnership for Maternal, Newborn & Child Health. (2009). The Partnership FAQ. The Partnership for Maternal, Newborn & Child Health. Retrieved from <http://www.who.int/pmnch/about/mission/en/index.html>
- Thompson, J. E. B. (2007). Poverty, development, and women: why should we care? *Journal of Obstetric, Gynecologic, and Neonatal Nursing: JOGNN / NAACOG*, 36(6), 523-530. doi: 10.1111/j.1552-6909.2007.00184.x
- United Nations Development Fund for Women. (2008). Who Answers to Women? Gender & Accountability. Progress of the World's Women 2008/2009. UNIFEM.
- World Health Organization. (2006). Birth and emergency preparedness in antenatal care. Standards for Maternal and Neonatal Care 1.9. World Health Organization, Geneva. Retrieved from

http://www.who.int/making_pregnancy_safer/publications/Standards1.9N.pdf

World Health Organization. (2003). Working with Individuals, Families and Communities to Improve Maternal and Newborn Health. Making Pregnancy Safer Initiative. World Health Organization, Geneva. Retrieved from http://whqlibdoc.who.int/hq/2003/WHO_FCH_RHR_03.11.pdf

Image from: <http://web.mit.edu/fnl/volume/191/images/ambulance.jpg>

ROAD TRAFFIC INJURIES

1. INDIVIDUAL EMPOWERMENT - HEALTH LITERACY AND HEALTH BEHAVIOUR

Health promotion campaigns aimed at changing individual behaviour have been important in encouraging and increasing the use of protective gear such as bicycle and motorcycle helmets, children's car seats and seatbelts (Morrison, Petticrew, & H Thomson, 2003). Community-wide education campaigns have been effective at promoting bicycle helmet usage, especially when combined with the distribution of free or subsidized helmets and the mandating of helmet wearing (Spinks, Turner, McClure, Acton, & Nixon, 2005). Mass media campaigns have contributed to reducing drink-driving and alcohol-related crashes (Elder et al., 2004; Guria & Leung, 2004). Retraining of older drivers has been found to result in safer driving practices (Korner-Bitensky, Kua, von Zweck, & Van Benthem, 2009).

2. COMMUNITY EMPOWERMENT

There are a number of successful examples of programmes which have taken a community empowerment approach to road traffic injury prevention. A UK project (Kimberlee, 2008) brought together a highway authority, engineers and road safety officers to provide local young people with opportunities to participate in decision-making, in the belief that the active engagement of young service users would lead to more effective and sustainable solutions to accident prevention. Set in a deprived urban community, 405 young people aged 9-11 years, conducted environmental audits, interactive road safety awareness and citizenship training, and were engaged as decision-makers. Successful outcomes include increased knowledge of road and community safety issues, and the establishment of young people as stakeholders in the development of their own safety and active engagement with service providers in the development of engineering proposals. In New Zealand, the success of an indigenous community based injury-prevention intervention was attributed to its focus on active participation, holistic life-span approach, indigenous-ownership and alignment with community aspirations (Brewin & Cogan, 2004).



(Online), (2), CD003300. doi: 10.1002/14651858.CD003300.pub2.

- Kimberlee, R. (2008). Streets ahead on safety: young people's participation in decision-making to address the European road injury 'epidemic'. *Health & Social Care in the Community*, 16(3), 322-328. doi: 10.1111/j.1365-2524.2008.00762.x.
- Korner-Bitensky, N., Kua, A., von Zweck, C., & Van Benthem, K. (2009). Older driver retraining: an updated systematic review of evidence of effectiveness. *Journal of Safety Research*, 40(2), 105-111. doi: 10.1016/j.jsr.2009.02.002.
- Morrison, D. S., Petticrew, M., & Thomson, H. (2003). What are the most effective ways of improving population health through transport interventions? Evidence from systematic reviews. *Journal of Epidemiology and Community Health*, 57(5), 327-333.
- Peden, M., Scurfield, R., Sleet, D., Mohan, D., Hyder, A., Jarawan, E., et al. (2004). *World Report on Road Traffic Injury Prevention* (illustrated edition.). World Health Organization.
- Pilkington, P., & Kinra, S. (2005). Effectiveness of speed cameras in preventing road traffic collisions and related casualties: systematic review. *BMJ (Clinical Research Ed.)*, 330(7487), 331-334. doi: 10.1136/bmj.38324.646574.AE.
- Retting, R. A., Ferguson, S. A., & McCartt, A. T. (2003). A review of evidence-based traffic engineering measures designed to reduce pedestrian-motor vehicle crashes. *American Journal of Public Health*, 93(9), 1456-1463.
- Spinks, A., Turner, C., McClure, R., Acton, C., & Nixon, J. (2005). Community-based programmes to promote use of bicycle helmets in children aged 0-14 years: a systematic review. *International Journal of Injury Control and Safety Promotion*, 12(3), 131-142.
- Thomson, H., Jepson, R., Hurley, F., & Douglas, M. (2008). Assessing the unintended health impacts of road transport policies and interventions: translating research evidence for use in policy and practice. *BMC Public Health*, 8, 339. doi: 10.1186/1471-2458-8-339.
- United Nations General Assembly. (2008). 62/244. Improving global road safety. Resolution adopted by the General Assembly. Retrieved from <http://www.who.int/roadsafety/about/resolutions/A-RES-62-L-43.pdf>.

Image from: peds.com http://www.flickr.com/photos/peds_org/3852002393/

HIV/AIDS

1. INDIVIDUAL EMPOWERMENT - HEALTH LITERACY AND HEALTH BEHAVIOUR

Behavioural strategies in relation to HIV/AIDS have largely aimed to prevent primary infection, prevent transmission to others, and optimize the health of those living with HIV. They include efforts to delay the onset of first intercourse, decrease the number of sexual partners, increase the number of sexual acts that are protected, provide counselling and testing for HIV, encourage adherence to biomedical strategies preventing HIV transmission, decrease sharing of needles and syringes, and decrease substance use (Coates et al., 2008). Uganda was able to produce radical changes in individual behaviour by utilizing a mix of communication channels, and disseminating simple and clear messages about a range (rather than emphasizing one) of risk reduction and health-seeking options (Coates et al., 2008). Local involvement in message design, production, and dissemination was also considered essential (Coates et al., 2008). Reviews of HIV/AIDS education programmes in sub-Saharan Africa have found that it is relatively easy to effect changes in knowledge and attitudes regarding HIV/AIDS using school-based interventions, but it is harder to change intentions and even more difficult to change actual sexual risk behaviours (Paul-Ebhohimhen et al., 2008). The training of peer educators has been a successful strategy to promote behaviour change in harder-to reach risk groups such as sex-workers, injecting drug users and men who have sex with men (Coates et al., 2008).

Limiting HIV communication to messages about how to behave or how HIV is transmitted, fails to recognise that the cultural and social contexts in which such communication occurs often present barriers to individual behaviour change (UNAIDS, 2007). Social change communication is a way of responding to broader social drivers such as gender inequality and stigma, which impact on the effectiveness of health communication. Social change communication for HIV/AIDS is the strategic use of advocacy, community dialogue, mass media approaches and other forms of communication, with the goal to catalyse action at the individual, community and policy levels (UNAIDS, 2007). Social change communication programmes have been shown to make significant and durable change in deeply rooted practices; from domestic violence to police complicity in violence against men who have sex with men; from denial of HIV in rural communities to fear of using condoms in stable couples (UNAIDS, 2007).



2. COMMUNITY EMPOWERMENT

An intervention in the Sonagachi red-light area in India, encouraging the self-organisation of sex workers, along with defining and tackling their other needs such as legal advice, child immunization, economic empowerment and literacy. It empowered sex workers to create an environment conducive to condom use through collective bargaining with structures of power (police, brokers and brothel-owners) (Shahmanesh et al., 2008). The IMAGE project in South Africa sought to reduce gender-based HIV vulnerabilities, such as sexual violence, women's economic dependency on men, and women's lack of in-depth information about HIV and its transmission. The project partnered with a local microfinance institution to enable women to pursue microenterprises, while offering participants HIV education. At the same time, the project created opportunities for women to discuss and mobilise local action against gender-based violence, and resulted in significantly reduced levels of intimate partner violence as well as improved household wellbeing, social capital, and empowerment (Gupta et al., 2008). Some of the tools used as part of the social change communication approach (mentioned in the individual empowerment section above) also include community empowerment programmes to tackle the root drivers of the HIV epidemic. For example, the Caribbean Vulnerable Communities (CVC) Coalition (UNAIDS, 2007) worked to mobilise members of the affected communities, such as sex workers and sexual minorities, to analyse the factors that led to social exclusion and discouraged members of their communities away from services. They also helped these communities to form national and regional coalitions for demanding and strengthening service provision.

3. STRENGTHENING HEALTH SYSTEMS

Removing cost barriers, for example free condom provision or free STI treatment vouchers for sex workers (Shahmanesh et al., 2008) can improve access to HIV prevention for those most vulnerable. Efforts to change behaviour will not be as successful without associated strengthening of the health system, for example in expanding access to HIV testing and counselling, laboratory facilities, substance-abuse treatment and needle exchange services. Successful efforts to increase the number of people who know their sero-status have included home-based family-delivered counselling and testing, provider-initiated counselling and testing as in Botswana, and community-level counselling and testing (Coates et al., 2008). The collection of robust behavioural and serological surveillance data can assist evaluate, and inform HIV prevention efforts (Coates et al., 2008). In Australia the scientific, services and advocacy communities established a process whereby data from yearly surveys were fed back to the community, health authorities, and AIDS service organizations to assist with prevention planning and programming. Subsequent surveys provided assessments of previous programmes and directions for the future. Early access and adherence to anti-retroviral treatment is important not only to prolong the healthy life of those who are HIV-positive, but also to reduce their infectivity to others (Coates et al., 2008). Health systems strengthening supports the prevention of mother to child transmission of HIV infection, including the use of antiretroviral drugs. Prevention of HIV transmission from mother to baby requires a health system able to deliver a comprehensive package that includes: preventing HIV infection in women, preventing unintended pregnancies in women living with HIV, preventing transmission from pregnant women living with HIV to their infants, and providing care, treatment and support for women living with HIV and their families (PMTCT High Level Global Partners Forum, 2005). Strengthening policy and programme linkages between HIV and sexual and reproductive health is essential for either effort to be successful

(UNFPA & UNAIDS, 2004). The UNAIDS AIDS Strategy and Action Plan, led by the World Bank, has developed a self-assessment tool for national AIDS programmes to assess the quality of their current national strategic plan (Bertozzi et al., 2008).

4. PARTNERSHIPS AND INTERSECTORAL ACTION

Senegal encouraged behaviour change through cross-sectoral cooperation, involving the faith sector, and inclusion of marginalised groups with high risk of HIV (Coates et al., 2008). Action on broader determinants outside of the health sector is essential in HIV prevention - the best predictor of whether or not a young woman in South Africa will get infected is whether or not she is in school, highlighting the importance of efforts to promote and maintain school attendance (Coates et al., 2008). Other innovative approaches can reduce the vulnerability of certain groups. For example, improvements to road surfaces in Burma reduced transportation times and the number of overnight stops made by truck drivers, in turn reducing exposure to risk of HIV infection and transmission through interaction with sex workers (Gupta et al., 2008). Policy and legislative changes relating to drugs and prostitution have created environments more supportive of HIV prevention among injecting drug users and sex workers (Gupta et al., 2008). Global partnerships have mobilized impressive additional resources and attention for scaling up HIV treatment, and the goal of universal access should also include access to HIV prevention technologies and devices (eg, condoms, clean needles, and drug treatment), information, skills, and services (Coates et al., 2008). Funding from large donors has enabled the rapid scaling up of prevention efforts in some areas, such as Avahan, the Indian AIDS initiative funded by the Bill & Melinda Gates Foundation. Avahan, working with state governments, and over 185 local non-governmental organizations, managed within two years to achieve programme coverage of over 80% of the target population in the six highest prevalence states (Bertozzi et al., 2008).

REFERENCES

- Bertozzi, S. M., Laga, M., Bautista-Arredondo, S., & Coutinho, A. (2008). Making HIV prevention programmes work. *The Lancet*, 372(9641), 831-844. doi: 10.1016/S0140-6736(08)60889-2.
- Coates, T. J., Richter, L., & Caceres, C. (2008). Behavioural strategies to reduce HIV transmission: how to make them work better. *Lancet*, 372(9639), 669-684. doi: 10.1016/S0140-6736(08)60886-7.
- Gupta, G. R., Parkhurst, J. O., Ogden, J. A., Aggleton, P., & Mahal, A. (2008). Structural approaches to HIV prevention. *The Lancet*, 372(9640), 764-775. doi: 10.1016/S0140-6736(08)60887-9.
- Paul-Ebhohimhen, V. A., Poobalan, A., & van Teijlingen, E. R. (2008). A systematic review of school-based sexual health interventions to prevent STI/HIV in sub-Saharan Africa. *BMC Public Health*, 8, 4. doi: 10.1186/1471-2458-8-4.
- PMTCT High Level Global Partners Forum. (2005). Call to Action: Towards an HIV-free and AIDS-free generation. Prevention of Mother to Child Transmission (PMTCT) High Level Global Partners Forum, Abuja, Nigeria, December 3, 2005. UNFPA. Retrieved from http://www.unfpa.org/upload/lib_pub_file/523_filename_abuja_call-to-action.pdf.
- Shahmanesh, M., Patel, V., Mabey, D., & Cowan, F. (2008). Effectiveness of interventions for the prevention of HIV and other sexually transmitted infections in female sex workers in resource poor setting: a systematic review. *Tropical Medicine & International Health: TM & IH*, 13(5), 659-679. doi: 10.1111/j.1365-3156.2008.02040.x.

UNAIDS. (2007). Report of the UNAIDS Technical Consultation on Social Change Communication, 2-3 August 2007. UNAIDS. Retrieved from http://data.unaids.org/pub/Report/2007/jc1404-socchangecomm_en.pdf.

UNFPA, & UNAIDS. (2004). New York Call to Commitment: Linking HIV/AIDS and Sexual and Reproductive Health. UNFPA.

Image from: World Bank Photo Collection <http://www.flickr.com/photos/worldbank/2760564010/>

FOOD SAFETY

1. INDIVIDUAL EMPOWERMENT - HEALTH LITERACY AND HEALTH BEHAVIOUR

Health promotion interventions to change behaviours in relation to food safety have involved not just food consumers, but a range of actors along the continuum from farm to consumption. These activities include the provision of balanced factual information to consumers; the provision of information packages and educational programmes for key officials and workers in the food industry; development of train-the-trainer programmes; and provision of reference literature to extension workers in the agriculture and health sectors (Food and Agriculture Organization of the United Nations & World Health Organization, 2007). Education of consumers and training of food handlers for the safe handling of food are two of the most critical interventions in the prevention of foodborne illness (Elmi, 2008), and are most effective when targeted to the five points at which food contamination is most likely to occur: personal hygiene, cooking foods adequately, avoiding cross-contamination, keeping foods at safe temperatures, and avoiding food from unsafe sources (World Health Organization, 2001; Medeiros, Hillers, Kendall, & Mason, 2001). Other effective measures to create improved food safety behaviour include the inspection and risk assessment in commercial food premises (Medeiros et al., 2001). Efforts to change food service workers' behaviours are more likely to be effective if they pay greater attention to the broader context, and address multiple influences on worker behaviour such as work pressure, safety procedures and protocols, appropriate equipment, management enforcement of policies, and incentives for safe food handling (Mitchell, Fraser, & Bearon, 2007).

2. COMMUNITY EMPOWERMENT

The ability to access and prepare safe food is directly affected by poverty, living conditions, access to clean water, sanitation and education. Community empowerment initiatives that address these broader social determinants of health have flow-on effect for improved food safety and reductions in foodborne illness. The WHO Five Keys to Safer Food Training manual (World Health Organization, 2006) and the Five Keys to Safer Food Train the Trainer Course (World Health Organization, 2009) were developed to respond to the increasing number of requests from countries to assist in strengthening their food safety education programmes to empower



consumers. Empowerment of women through the provision of safe food handling education is essential as women play an important role both in the production, and the preparation of safe food at home, particularly in developing countries and Module 1 of the Train the Trainer course, designed to target women, was piloted in South Africa, Tunisia and Belize (World Health Organization, 2009). In Egypt, the evaluation of a Five Keys training programme for women in impoverished neighbourhoods showed that women not only adopted the basic food hygiene practices but became aware of their need to petition the government to gain access to basic services such as safe water (World Health Organization, 2006). Anecdotal evidence shows that educational projects implemented for school children sensitize the school surrounding community to the importance of safe food handling practices, including teachers, parents, personnel in canteens, street vendors around the school (World Health Organization, Regional Office for Africa., 2008). The Food Gatherers' Community Kitchen empowers homeless and at-risk 17-24 year olds in the USA, by providing free food-industry job training through that not only contributes to their personal skills and esteem, but improves their knowledge of nutrition, healthy food preparation, food hygiene and chances of future employment in the food industry (Food Gatherers, 2008)

3. STRENGTHENING HEALTH SYSTEMS

Health systems strengthening efforts for food safety include ensuring access to reliable and current intelligence on the incidence and distribution of foodborne illness, so that links between food contamination and foodborne diseases can be established and acted upon. This means adequate laboratory facilities and effective linkages between food industry and food control agencies, and the veterinary and public health systems. A strengthened interaction enables identification of susceptible population groups, identification of hazardous foods, identification and tracing of causes of foodborne diseases, and the development of early warning systems for food contamination and outbreak detection, to inform appropriate risk-based food control policies (Food and Agriculture Organization of the United Nations & World Health Organization, 2007). A systems based approach is essential to promote food safety - the introduction of preventive measures at all stages of the food production and distribution chain, rather than only inspection and rejection at the final stage, makes better economic sense, because unsuitable products can be identified earlier along the chain (Elmi, 2008). In addition to effective enforcement of mandatory requirements, an ideal food safety system should include training and education, community outreach programmes and promotion of voluntary compliance. The introduction of preventive approaches such as the Hazard Analysis Critical Control Point System (HACCP), have resulted in industry taking greater responsibility for and control of food safety risks (Food and Agriculture Organization of the United Nations & World Health Organization, 2007).

4. PARTNERSHIPS AND INTERSECTORAL ACTION

Educational projects involving partnerships and intersectoral action, with sectors such as health, agriculture, education, trade, and tourism, are being implemented all over the world. As an example, WHO/PAHO, together with the Institute of Nutrition of Central America and Panama (INCAP) have partnered with Ministries of Health, community health committees and Ministries of Education in several Latin American countries, to adapt the WHO food safety recommendations into an resource package for teachers and parents to deliver food safety education to elementary

school children, which is now to be rolled out nation-wide as part of the primary school curriculum (World Health Organization, Pan American Health Organization, & Institute of Nutrition of Central America and Panama, 2007). Another illustrative example is in China. In preparation of the 2008 Beijing Olympics Games, the Ministries of Health and Education partnered to enhance knowledge of food safety through the implementation of Five Keys to Safer Food (World Health Organization, 2001) educational programmes for food handlers and school children. Health, agriculture, and commerce sectors worked together to strengthen food safety policies and control systems to strengthen their health systems and to prevent food safety events during the Olympic Games. The Five Keys concept was extended to offer broader advice to people to improve healthy lifestyles. The 3 Fives: Five Keys to Safer Food, Five Keys to a healthy diet, Five Keys to appropriate physical activity (World Health Organization, 2009) were disseminated in strategic locations such as airport, hotels, Olympic venues and communities. The 3 Fives, prepared in collaboration with the Chinese national authorities and the Beijing Olympics Committee, will be one of the legacies of the Olympics. The health promotion campaign also included the dissemination of the WHO Guide on Safe Food for Travellers (World Health Organization, 2007). Other projects have been initiated in a number of cities around the concept of Healthy Food Markets, under the framework of the WHO Healthy Cities Programme (World Health Organization, 2006). These projects aim to improve the environmental health and food safety in marketplaces through intersectoral partnerships with local agencies, institutions and urban communities, involving stakeholders such as market vendors, managers and suppliers, municipal and health authorities, as well as consumers.

PUTTING IT ALL TOGETHER: CASE-STUDY OF AN INTEGRATED APPROACH

Health promotion campaigns and educational projects to disseminate the Five Keys to Safer Food message (World Health Organization, 2001) are being implemented all over the world on the initiative of countries. One illustrative example of integrated approach is the initiative taken by South Africa for the preparation of the 2010 FIFA World Cup. South Africa's approach builds on the model used in China to prevent food safety events in international mass-gatherings such as the Olympics Games. Considering the fact that everyone has a role to play, including the consumers, in ensuring that foods eaten are safe and will not cause harm, the Department of Health:

- Initiated a nation-wide health promotion campaign to educate the consumers to safe handling practices. The Five Keys to Safer Food serve as the basis to improve **health literacy** and promote **healthy behaviours**. The Five Keys messages are translated into all the local languages of the country in collaboration with the Department of Arts and Culture to ensure the messages reach and **empower the full community**.
- Adopted the Five Keys to Safer Food Train-the-Trainer course to train food handlers (World Health Organization, 2009). The training course is delivered in six universities of technology to train Environmental Health Practitioners in Food Hygiene and Community Development who will then train food handlers.
- Put in place **inter-sectoral collaboration** at both national, provincial and municipal levels along the food chain from farm-to-consumption (production, processing, retail, preparation) to ensure compliance to health standards and ensure that all parties concerned play their part in protecting consumers from the risks of unsafe food.
- In addition South Africa plans to disseminate the WHO Guide on Safe Food for Travellers (World Health Organization, 2007) and the 3 Fives (World Health Organization, 2009) to

promote healthier lifestyles and take advantage of a major sporting event such as the 2010 FIFA World Cup to **strengthen their health systems** and sensitize the population to the benefits of healthier behaviours and lifestyles.

REFERENCES

- Elmi, M. (2008). Food safety. *Eastern Mediterranean Health Journal*, 14 Suppl, S143-149.
- Food and Agriculture Organization of the United Nations, & World Health Organization. (2007). Assuring Food Safety and Quality: Guidelines for Strengthening National Food Control Systems. Joint FAO/WHO Publication.
- Food Gatherers. (2008). Community Kitchen Graduation. *Food Gatherers Harvest Update*, 2.
- Medeiros, L. C., Hillers, V. N., Kendall, P. A., & Mason, A. (2001). Food safety education: what should we be teaching to consumers? *Journal of Nutrition Education*, 33(2), 108-113.
- Mitchell, R. E., Fraser, A. M., & Bearon, L. B. (2007). Preventing food-borne illness in food service establishments: Broadening the framework for intervention and research on safe food handling behaviors. *International Journal of Environmental Health Research*, 17(1), 9-24. doi: 10.1080/09603120601124371.
- World Health Organization. (2001). Five Keys to Safer Food. World Health Organization, Geneva. Retrieved from www.who.int/foodsafety/consumers/en.
- World Health Organization. (2006). Five Keys to Safer Food Manual. World Health Organization, Geneva. Retrieved from http://www.who.int/foodsafety/publications/consumer/manual_keys.pdf.
- World Health Organization. (2009). The Five Keys to Safer Food Training Course. World Health Organization, Geneva. Retrieved from http://www.who.int/foodsafety/consumer/keys_training/en/index.html.
- World Health Organization. (2006). INFOSAN Information Note 5/2006 on the Five Keys to Safer Food. Retrieved from http://www.who.int/foodsafety/fs_management/No_05_5keys_Oct06_en.pdf.
- World Health Organization. (2009). The 3 Fives. Retrieved from http://www.who.int/foodsafety/consumer/3_fives_Beijing/en/index.html.
- World Health Organization. (2007). Guide on Safe Food for Travellers. Retrieved from <http://www.who.int/foodsafety/publications/consumer/travellers/en/index.htm>.
- World Health Organization. (2006). Healthy Food Markets. World Health Organization, Geneva.
- World Health Organization, Pan American Health Organization, & Institute of Nutrition of Central America and Panama. (2007). WHO's Five Keys to Safer Food: the experience in Gautemalan Elementary Schools. Institute of Nutrition of Central America and Panama.
- World Health Organization, Regional Office for Africa. (2008). Summary of the Five Keys in the African Region. World Health Organization.
- Image from: Material Guy <http://www.flickr.com/photos/uwebkk/3468499692/>

MENTAL HEALTH

1. INDIVIDUAL EMPOWERMENT - HEALTH LITERACY AND HEALTH BEHAVIOUR

A range of approaches have been used to successfully improve mental health literacy: whole-of-community campaigns; community campaigns aimed at a particular sub-group (eg youth); school-based interventions teaching help-seeking skills, mental health literacy, or resilience; and programs training individuals to better intervene in a mental health crisis (Kelly, Jorm, & Wright, 2007). Health literacy programmes have successfully improved awareness of mental health issues in some developing countries, such as a school-based program in Pakistan which improved understanding of mental health problems, reduced stigma and increased knowledge about coping skills (McQueen & Jones, 2007). Changes in attitudes were also observed in students' families and neighbours, indicating that children acted as a gateway for improving health literacy in their wider community (McQueen & Jones, 2007). Mass media campaigns have role in de-stigmatising mental health and raising public awareness (McQueen & Jones, 2007). Cognitive restructuring techniques have been used successfully with a range of age groups to promote resilience and coping behaviours, for example PATHS – Promoting Alternative THinking Strategies (Jané-Llopis, Barry, Hosman, & Patel, 2005). Mental health promotion is also not just about the prevention of mental disorders but is a desirable activity in itself and can assist in the prevention of a range of other unhealthy behaviours such as smoking and unprotected sex (Herrman, Saxena, & Moodie, 2005).

2. COMMUNITY EMPOWERMENT

There is evidence that interventions to strengthen community networks and enhance social capital lead to improvements in mental health (Herrman et al., 2005). An example is the Communities That Care (CTC) Programme, a strategy for activating communities to implement community violence and aggression prevention systems, that has been implemented successfully across several hundred communities in the USA and other developed countries (Herrman et al., 2005). Communities use local data on risk and protective factors to identify the risk profile of their community, and are supported in selecting and implementing the best match of evidence-based actions at multiple levels including: community (eg mobilization, media, policy change),



school (eg changing school management structures or teaching practices), family (eg parent training strategies) and individual (eg social competence promotion strategies). Evaluations of CTC have shown improvements in youth behavioural outcomes, parental skills and family and community relations, and decreases in school problems, weapons charges, burglary, drug offences and assault charges (Herrman et al., 2005). Other community empowerment initiatives, such as the Bangladesh Rural Advancement Committee, which includes health, education and rural development initiatives, have demonstrated improvements in measures of psychological health (McQueen & Jones, 2007). There is also evidence that micro-finance schemes to achieve economic empowerment of poorer communities leads to improved mental health among other health benefits (McQueen & Jones, 2007).

3. STRENGTHENING HEALTH SYSTEMS

Interventions related to the broader functioning of health systems have an impact on improving mental health, including improving nutrition and reducing misuse of addictive substances (Herrman et al., 2005). Similarly, mental health and physical health are inextricably linked, and access to high quality health services to maintain and maximize physical health status is essential in promoting positive mental wellbeing (Herrman et al., 2005). Mental health in later life is strongly influenced by early childhood experiences and development (Herrman et al., 2005), and a system that offers comprehensive support to parents and their children during this period is required to promote positive mental health outcomes. For example, home-based early childhood interventions that focus on educational strategies to enhance resilience and competence in parents and families have been beneficial. Evidence from home visiting interventions during pregnancy has shown health, social and economic outcomes of great public health significance, including improvement in mental health outcomes in both the mothers and the newborns (Herrman et al., 2005). For mental health promotion, a health system also needs to provide adequate support for prevention and treatment of substance addiction, as well as access to screening and early intervention for those with mental illness. Many mental illnesses are chronic conditions, and their management requires access to a range health services, including primary care, counselling and psychiatric services, as well as reliable and affordable access to medications.

4. PARTNERSHIPS AND INTERSECTORAL ACTION

Collaboration on mental health needs to be both horizontal (linking mental health with the health, education, employment, social welfare, justice, user and family sectors) and vertical (linking national, regional and local networks) (Herrman et al., 2005). There is evidence that improved mental health is related to improvements in areas outside the health sector, such as housing, access to education and economic insecurity, indicating the potential for positive "spill-over" effects for mental health through economic policies and policies in housing, roading and urban design (McQueen & Jones, 2007). Similarly, workplace policies and legislation associated with improving job security and job conditions have been shown to have positive impacts on mental health (Jané-Llopis et al., 2005). Other effective workplace strategies to improve mental health and to prevent the risk of mental disorders include job enrichment, ergonomic improvements, reduction of noise, lowering the workload, improving role clarity, conflict resolution and social relationships (Jané-Llopis et al., 2005). Government policy can be instrumental in providing incentives for employers to employ people with severe mental illness and enforcing anti-discrimination policy (Herrman et al., 2005). Health and education have partnered in a number

of countries to develop mental health promoting settings in schools (Herrman et al., 2005). In response to high suicide rates in Indian farmers, intersectoral action at a community level simultaneously addressed mental health service needs and pesticide storage and safety (Herrman et al., 2005).

PUTTING IT ALL TOGETHER: CASE-STUDY OF AN INTEGRATED APPROACH

The World Health Organization advocates for a community based approach to mental health promotion for children in severe food shortage situations (World Health Organization, 2006), which involves a combination of nutrition and stimulation programmes that emphasize appropriate feeding practices and responsive parenting. This is based on the premise that many caregivers are unavailable or unable to provide psychosocial stimulation to their children during food crises due to their own poor physical or mental health. A lack of psychosocial stimulation has adverse consequences for children's development (cognitive, motor, language) and mental health (World Health Organization, 1999). A multi-pronged programme is necessary, which promotes the **mental health literacy** of health workers and caregivers. Dissemination of information on appropriate feeding practices and the importance of psychosocial stimulation to key groups, including healthcare providers, donors and humanitarian aid workers is essential. Through further disseminating this information and modelling appropriate parenting practices to caregivers, this programme involves **individual empowerment**. Through **partnership and intersectoral collaboration**, attempts are made to ensure that all households have an adequate quantity and quality of food. **Community empowerment** is promoted through ensuring that children spend time with other children in informal play groups, where a nurse or a volunteer develops a curriculum of play activities. The **health system** is strengthened through the provision of psychosocial activities at health facilities and therapeutic feeding centres.

REFERENCES

- Herrman, H., Saxena, S., & Moodie, R. (Eds.). (2005). *Promoting Mental Health: Concepts, Emerging Evidence and Practice*. World Health Organization, Geneva.
- Jané-Llopis, E., Barry, M., Hosman, C., & Patel, V. (2005). Mental health promotion works: a review. *Promotion & Education*, Suppl 2, 9-25, 61, 67.
- Kelly, C. M., Jorm, A. F., & Wright, A. (2007). Improving Mental Health Literacy As a Strategy To Facilitate Early Intervention For Mental Disorders. *The Medical Journal of Australia*, 187(7), S26-S30.
- McQueen, D., & Jones, C. (2007). *Global Perspectives on Health Promotion Effectiveness* (1st ed.). Springer.
- World Health Organization. (2006). *Mental Health and Psychosocial Well-Being among Children in Severe Food Shortage Situations*. World Health Organization, Geneva.
- World Health Organization. (1999). *The Critical Link: Interventions For Physical Growth And Psychological Development*. World Health Organization, Geneva.
- Image from: http://www.flickr.com/photos/un_photo/3546066619/

DIABETES

1. INDIVIDUAL EMPOWERMENT - HEALTH LITERACY AND HEALTH BEHAVIOUR

Lifestyle modification programs, with the goals of weight loss and physical activity, can be more effective than using medication to prevent the development of diabetes in adults with impaired glucose tolerance (Knowler et al., 2002). Intensive patient education has also been the strategy most frequently used to encourage optimum self-management in patients with diabetes. Education alone however does not always result in behaviour change that leads to sustained improvement in glycaemic control, unless there is frequent contact with diabetes education providers or clinicians (Hayes, McCahon, Panahi, Hamre, & Pohlman, 2008). Nurse coaching has shown promise as a strategy for facilitating behaviour change and can lead to improved patient outcomes (Hayes et al., 2008). Group-based training for self-management strategies in people with Type 2 diabetes is effective in improving fasting blood glucose levels, glycated haemoglobin and diabetes knowledge and reducing systolic blood pressure levels, body weight and the requirement for diabetes medication (Deakin, McShane, Cade, & Williams, 2005).

2. COMMUNITY EMPOWERMENT

Participatory approaches have been used in a number of indigenous communities, to plan strategies to address diabetes in ways acceptable and meaningful to the community. These have included addressing environmental and social determinants of diabetes in these communities, as well as behavioural factors (Daniel et al., 1999). It needs to be recognized that empowerment programs require a long time course to impact on more distal diabetic outcomes such as HbA1c. The Kahnawake Schools Diabetes Prevention Project (KSDPP) was a participatory project that involved partnership between the local Mohawk community, researchers and local health service providers, in response to requests from the community to develop a diabetes prevention program focusing on young children. The long-term goal of KSDPP was to decrease the incidence of Type 2 diabetes, through the short-term objectives of increasing physical activity and healthy eating, but equally important objectives were to promote community capacity building and program ownership, while respecting Mohawk traditions and culture (Potvin, Cargo, McComber,



Delormier, & Macaulay, 2003). CDC initiatives in the Pacific, guided by the principles of community building and the goal of empowering coalitions to take action around diabetes, have used culturally appropriate strategies to gain access to the community, transfer knowledge and skills, build coalitions, and provide technical assistance. Evidence of empowerment has been seen in increased individual competence, enhanced community capacity, reduced barriers, and improved supports to address diabetes (Braun et al., 2003).

3. STRENGTHENING HEALTH SYSTEMS

Strengthening health systems to enable the identification of high risk groups and screening is imperative to shift the focus to prevention and early detection of diabetes. Robust risk factor surveillance and monitoring is required to inform prevention efforts. Reorienting primary health services, for example the use of provider incentives for diabetes training and risk assessment, nurse case managers, and diabetes self-management education programs, have been shown to positively impact on diabetic patient outcomes (Hayes et al., 2008). Prolonging the healthy life of those with diabetes requires universal access to comprehensive primary health care, including allied health services for the assessment and prevention of complications, and equitable access to essential medicines such as insulin. Online training courses offer an innovative approach to enhance health system capacity for diabetes health promotion, such as a course targeted at workers in remote indigenous communities in the Arctic to foster learning related to the Nunavut Food Guide, traditional food and nutrition, and diabetes prevention (Hamilton et al., 2004).

4. PARTNERSHIPS AND INTERSECTORAL ACTION

As part of the city-wide *Let's Beat Diabetes* initiative in South Auckland, the district health board partnered with local government to upgrade parks to make safer environments for physical activity, and worked with the Food Industry Group to develop a collaborative approach to reduce consumption of sweetened soft drinks and energy dense foods, and to promote healthier choices at retail outlets (Counties Manukau District Health Board, 2005). Other interventions included partnering with major fast food retailers to make sugar-free soft drinks the default option provided to customers, unless specifically requested otherwise. Intersectoral action on risk factors for diabetes also acts on the determinants of the other major risk factors for the non-communicable disease burden, such as heart disease, cancer and respiratory disease, so given the co-benefits it makes sense to consider health promotion for these issues collectively. For example, the Global Strategy on Diet, Physical Activity and Health (DPAS) was adopted by the 57th World Health Assembly (WHA) in 2004 and this strategy within countries will lead to a significant reduction in the mortality and morbidity of major NCDs and the NCD risk factors, including diabetes (World Health Organization, 2008). The strategy outlines a range of evidence-based intersectoral interventions, including working with governments, schools and the food industry to reduce salt, saturated fat and sugar composition of food, promote marketing of healthy food choices and regulate the marketing of unhealthy food to children, and working with urban planners, transport authorities, schools and local governments to provide safe opportunities for active transport and play.

REFERENCES

- Braun, K. L., Ichiho, H. M., Kuhaulua, R. L., Aitaoto, N. T., Tsark, J. U., Spegal, R., et al. (2003). Empowerment through community building: Diabetes Today in the Pacific. *Journal of Public Health Management and Practice: JPHMP, Suppl*, S19-25.
- Counties Manukau District Health Board. (2005). Let's Beat Diabetes. A Five Year Plan to Prevent and Manage Type 2 Diabetes in Counties Manukau. Counties Manukau District Health Board. Retrieved from <http://www.letsbeatdiabetes.co.nz/file/Reports/lbd-5-year-strategic-overview.pdf>.
- Daniel, M., Green, L. W., Marion, S. A., Gamble, D., Herbert, C. P., Hertzman, C., et al. (1999). Effectiveness of community-directed diabetes prevention and control in a rural Aboriginal population in British Columbia, Canada. *Social Science & Medicine* (1982), 48(6), 815-832.
- Deakin, T., McShane, C. E., Cade, J. E., & Williams, R. D. R. R. (2005). Group based training for self-management strategies in people with type 2 diabetes mellitus. *Cochrane Database of Systematic Reviews (Online)*, (2), CD003417. doi: 10.1002/14651858.CD003417.pub2.
- Hamilton, S., Martin, J., Guyot, M., Trifonopoulos, M., Caughey, A., & Chan, H. M. (2004). Healthy living in Nunavut: an on-line nutrition course for inuit communities in the Canadian arctic. *International Journal of Circumpolar Health*, 63(3), 243-250.
- Hayes, E., McCahon, C., Panahi, M. R., Hamre, T., & Pohlman, K. (2008). Alliance not compliance: coaching strategies to improve type 2 diabetes outcomes. *Journal of the American Academy of Nurse Practitioners*, 20(3), 155-162. doi: 10.1111/j.1745-7599.2007.00297.x.
- Knowler, W. C., Barrett-Connor, E., Fowler, S. E., Hamman, R. F., Lachin, J. M., Walker, E. A., et al. (2002). Reduction in the incidence of type 2 diabetes with lifestyle intervention or metformin. *The New England Journal of Medicine*, 346(6), 393-403. doi: 10.1056/NEJMoa012512.
- Potvin, L., Cargo, M., McComber, A. M., Delormier, T., & Macaulay, A. C. (2003). Implementing participatory intervention and research in communities: lessons from the Kahnawake Schools Diabetes Prevention Project in Canada. *Social Science & Medicine*, 56(6), 1295-1305. doi: 10.1016/S0277-9536(02)00129-6.
- World Health Organization. (2008). *Prevention and control of noncommunicable diseases: implementation of the global strategy (2008-2013)*. World Health Organization. Retrieved April 16, 2009, from http://www.who.int/gb/ebwha/pdf_files/A61/A61_8-en.pdf.
- Image from: lajino sanrosendo http://www.flickr.com/photos/lajino_sanrosendo/3621809976/

TOBACCO

1. INDIVIDUAL EMPOWERMENT - HEALTH LITERACY AND HEALTH BEHAVIOUR

Most tobacco users are unaware of the extent of health harms, to themselves and others, from their tobacco use. Large and sustained information and advocacy campaigns increase public awareness of the health risks of smoking and of second-hand smoke, the addictive nature of tobacco and the benefits of quitting tobacco (World Health Organization & International Union Against Tuberculosis and Lung Disease, 2007). This includes appropriate training, sensitization and awareness programmes on tobacco control addressed to health community and social workers. Successful measures for encouraging behaviour change (cessation and prevention of relapse) in those who are tobacco dependent include motivation, advice and guidance, counselling, telephone and internet support, and appropriate pharmaceutical aids (World Health Organization & International Union Against Tuberculosis and Lung Disease, 2007). Repeated advice at every medical visit reinforces the need to stop using tobacco and advice from health-care practitioners can greatly increase abstinence rates (World Health Organization, 2008). The display of prominent health warnings on tobacco packages is effective in increasing knowledge about tobacco risks and motivating smokers to quit. Evidence shows that health warnings and messages that contain both pictures and text are far more effective than those that are text-only. They also have the added benefit of potentially reaching people with low levels of literacy and those who cannot read the language(s) in which the text of the health warning or message is written (World Health Organization & International Union Against Tuberculosis and Lung Disease, 2007).

2. COMMUNITY EMPOWERMENT

Community empowerment programmes that aim to increase the control that communities are able to exercise over their own lives, can contribute to reduced tobacco consumption without tobacco control needing to be the primary focus of the programme. For example, programmes with low income women that were based around their immediate concerns such as food budgets, parenting and body image, led to increased social support and perceived power, creating the



environment for the women to then raise other health concerns such as smoking (Laverack & Labonte, 2000). Similarly, those trying to implement a smoking cessation programme with Latin American migrant men in Canada quickly realized that efforts to reduce smoking rates would not be successful unless accompanied by a wider empowerment process that aimed to address the other more pressing concerns that these men had in their lives, such as lack of opportunities for their children (Laverack & Labonte, 2000). It is women and children who are most exposed to the health effects of second-hand smoke, yet women in developing countries often have little control over tobacco use or expenditure in their families (Esson K M. & Leeder S.R., 2004). Empowerment of women will improve women's ability to negotiate smoke-free environments in their homes, advocate for smoking cessation in their families and exercise more control over the family budget.

3. STRENGTHENING HEALTH SYSTEMS

Tobacco control efforts require the support of good monitoring systems to track indicators of the prevalence of tobacco use (including surveys on consumption levels by age group, sex, income and other demographic subdivisions), the impact of policy interventions, as well as tobacco industry marketing, promotion and lobbying (World Health Organization, 2008). This monitoring system must be sustainably funded, and capable of disseminating results to governments and civil society. The addictive element of tobacco use means that health promotion efforts must be associated with a health system that can adequately respond to tobacco dependence. This includes tobacco cessation advice incorporated into primary health-care services, easily accessible and free quit lines, and access to low-cost pharmacological therapy, specially access to nicotine replacement therapy (NRTs) in the form of patch, gum, and nasal spray, which are now part of WHO's essential drug list (World Health Organization, 2008). These treatment methods do not have a uniform impact on individual tobacco users (World Health Organization, 2008), so health systems needs to offer a range of options.

4. PARTNERSHIPS AND INTERSECTORAL ACTION

Many of the most effective interventions to decrease tobacco-related health harm lie outside the health sector. Increasing tobacco taxation to raise the price is the most effective method of decreasing the use of tobacco (especially initiation amongst youth), and has the added benefit of providing government revenue, which could be used to offset some of the health care costs incurred by tobacco-related health conditions (World Health Organization, 2008). Restrictions on the marketing and promotion of tobacco products are other effective strategies that require co-operation and leadership beyond the health sector, and although some progress has been made, only 5% of the world's population currently lives in countries with comprehensive national bans on tobacco advertising, promotion and sponsorship (World Health Organization, 2008). The WHO Framework Convention on Tobacco Control (FCTC), adopted by the World Health Assembly in 2003, represents a landmark example of global co-operation on tobacco control. It has become one of the most widely embraced treaties in UN history with 166 parties, although much more is required before the commitments are fully implemented. At a global level, parties to the FCTC are negotiating a new, legally binding protocol on illicit trade that will fight smuggling and counterfeiting. At country levels, a number of governments are implementing cross-sectoral approaches to tobacco control. For example, Kenya has a new Tobacco Control Board to advise the government on policies to regulate production, manufacture, sale, advertising, promotion and use of tobacco products, and membership includes the Attorney General, the Director General of

the National Environmental Management Authority (Convention Secretariat, WHO Framework Convention on Tobacco Control, 2009). At a community level, partnership between the regional public health unit and local council in rural New Zealand in 2007 led to banning of smoking at council events and public places, including beaches, parks, playgrounds, and sports fields (Toi Te Ora – Public Health Service, 2009).

REFERENCES

Convention Secretariat, WHO Framework Convention on Tobacco Control. (2009). *Convention News - A quarterly publication of the Convention Secretariat WHO Framework Convention on Tobacco Control*. World Health Organization, Geneva. Retrieved August 30, 2009, from http://www.who.int/fctc/issue2_2009.pdf.

Esson K M., & Leeder S.R. (2004). *The Millennium Development Goals and Tobacco Control: An opportunity for global partnership*. World Health Organization. Retrieved from http://www.who.int/tobacco/publications/mdg_final_for_web.pdf.

Laverack, G., & Labonte, R. (2000). A planning framework for community empowerment goals within health promotion. *Health Policy and Planning*, 15(3), 255-262.

Toi Te Ora – Public Health Service. (2009). Opotiki Smoke-free Outdoor Public Spaces Evaluation Report. Toi Te Ora – Public Health Service, Bay of Plenty District Health Board, New Zealand. Retrieved from <http://www.toiteorapublichealth.govt.nz/vdb/document/135>.

World Health Organization. (2008). *WHO Report on the Global Tobacco Epidemic 2008: The MPOWER Package* (1st ed.). World Health Organization.

World Health Organization, & International Union Against Tuberculosis and Lung Disease. (2007). *A WHO/The Union Monograph on TB and Tobacco Control: Joining efforts to control two related global epidemics*. World Health Organization, Geneva.

Image from: Toi Te Ora - Public Health www.toiteorapublichealth.govt.nz

ALCOHOL

1. INDIVIDUAL EMPOWERMENT - HEALTH LITERACY AND HEALTH BEHAVIOUR

When it comes to influencing individual behaviour, population based strategies such as restricting the time, place and age of alcohol sales are more effective than strategies such as classroom education and mass-media campaigns (Casswell & Thamarangsi, 2009; WHO Expert Committee on Problems Related to Alcohol Consumption, 2007). School education campaigns and public warnings on the risks of alcohol have been shown to produce changes in knowledge but not in drinking behaviour (Anderson, Chisholm, & Fuhr, 2009; WHO Expert Committee on Problems Related to Alcohol Consumption, 2007). Mass media campaigns can be effective at improving public awareness and support for policies designed to reduce alcohol related harm, such as availability restrictions or drink-driving bans (WHO Expert Committee on Problems Related to Alcohol Consumption, 2007). There is some evidence that interventions delivered in the workplace setting, such as brief interventions, contained within health and life-style checks, psychosocial skills training and peer referral have potential to reduce alcohol problems (Webb, Shakeshaft, Sanson-Fisher, & Havard, 2009). When backed up by enforcement from police or licensing inspectors and formal house policies, “responsible server programmes”, in which serving staff are trained to deny service to those who are already intoxicated or under age, have been effective in reducing drink-driving and alcohol-related violence (WHO Expert Committee on Problems Related to Alcohol Consumption, 2007). Brief interventions from a health care provider for hazardous and harmful alcohol consumption can be effective at improving individual awareness at drinking related harms, and drinking behaviour (Casswell & Thamarangsi, 2009) and have been shown to reduce alcohol consumption, mortality and mortality (Anderson et al., 2009). Mandatory treatment for repeat drinking drivers can also be an effective strategy for assisting problem drinkers modify their behaviour (Casswell & Thamarangsi, 2009).

2. COMMUNITY EMPOWERMENT

It is important to recognize that for many groups, alcohol use is a symptom of marginalization and disempowerment, particularly for indigenous peoples dispossessed of their traditional lands



and cultures. Strategies aimed at empowering these communities are thus essential in addressing the root determinants of alcohol harm, and may take the form of much broader interventions such as increased political participation, land rights, and cultural revitalization. Efforts to empower communities can not focus on alcohol alone. For example, three-day camps have been organized with men and boys in Aboriginal communities in Australia. Discussion at the camps covers issues including drugs and alcohol, mental health, anger management and grief and loss as well as Aboriginal history, culture and identity and positive role models (Community Builders. New South Wales Government, 2009). Community action projects in less disadvantaged communities have led to community demand for a number of changes in alcohol policy, including increased regulation of licensed alcohol premises, training, policies and codes of practice for bar staff, bans on public drinking, shortening of hours of operation of licensed premises, and increased age-verification checks, resulting in reductions in alcohol-related injuries and harm (Laverack, 2006). Community empowerment programmes have been used in low-income countries to mobilize action to address local determinants of alcohol consumption and problems, such as counteracting the attractiveness of the image of alcohol drinking, reducing unfair privileges attached to alcohol use, improving recognition of the nature and magnitude of health and social consequences of harmful use of alcohol, and, encouraging quitting or reduction of use or change in patterns of consumption (WHO Regional Office for South-East Asia, 2006).

3. STRENGTHENING HEALTH SYSTEMS

Strengthening health systems is important in reducing harm from alcohol use, for example through the availability of emergency care for alcohol related violence and injury, as well as treatment for people with alcohol use disorders. Strengthening health systems to include data collection on the prevalence and pattern of alcohol use are important because the cost-effectiveness of interventions varies, depending on the penetration of alcohol use in the population (Casswell & Thamarangsi, 2009). Widespread simple help for hazardous and harmful alcohol consumption should be made available through primary-care facilities, supported by more intensive help for alcohol dependence (Anderson et al., 2009). To adequately respond to the needs of those with drinking problems, the health system needs to be able to provide detoxification, cognitive-behavioural therapies and pharmacological treatments (Casswell & Thamarangsi, 2009).

4. PARTNERSHIPS AND INTERSECTORAL ACTION

Some of the most cost-effective measures to reduce alcohol harm lie outside the health sector. These include measures to reduce alcohol affordability (taxation), availability (regulation of alcohol production, times and places of sale and minimum purchasing age) marketing restrictions (including bans on sponsorship and promotional activities) and drink-driving legislation and enforcement (Casswell & Thamarangsi, 2009; WHO Expert Committee on Problems Related to Alcohol Consumption, 2007). Any measures which increase the price of alcohol need to be associated with adequate control of sources of illegal production or smuggling (WHO Expert Committee on Problems Related to Alcohol Consumption, 2007). Advocacy with bodies such as the WTO and finance ministries, regarding how trade agreements directly and indirectly affect alcohol policies, can produce changes, for example laws restricting alcohol advertising in both France and Sweden were challenged, before being allowed on public health grounds (Casswell & Thamarangsi, 2009). A useful national model is a hypothecated tax or levy on alcohol sales, which is used to fund NGO activity, such as the StopDrink Network in Thailand supported by the Thai Health Promotion Foundation, which is funded by an earmarked tax of 2% on alcohol and tobacco

(Casswell & Thamarangsi, 2009). In 2006, 37 countries of the Western Pacific region endorsed a regional strategy to reduce alcohol-related harm which although lead by the health and welfare sector, also includes key roles for the education, finance, transportation and traffic, public order, and law enforcement sectors (Casswell & Thamarangsi, 2009).

REFERENCES

- Anderson, P., Chisholm, D., & Fuhr, D. C. (2009). Effectiveness and cost-effectiveness of policies and programmes to reduce the harm caused by alcohol. *The Lancet*, *373*(9682), 2234-2246. doi: 10.1016/S0140-6736(09)60744-3.
- Casswell, S., & Thamarangsi, T. (2009). Reducing harm from alcohol: call to action. *Lancet*, *373*(9682), 2247-2257. doi: 10.1016/S0140-6736(09)60745-5.
- Community Builders. New South Wales Government. (2009). Making a difference. New South Wales Government, Australia. Retrieved from http://www.communitybuilders.nsw.gov.au/download/FinalVersionPart5make_dif41-48.pdf.
- Laverack, G. (2006). Improving health outcomes through community empowerment: a review of the literature. *Journal of Health, Population, and Nutrition*, *24*(1), 113-120.
- Webb, G., Shakeshaft, A., Sanson-Fisher, R., & Havard, A. (2009). A systematic review of work-place interventions for alcohol-related problems. *Addiction (Abingdon, England)*, *104*(3), 365-377. doi: 10.1111/j.1360-0443.2008.02472.x.
- WHO Expert Committee on Problems Related to Alcohol Consumption. (2007). WHO Expert Committee on Problems Related to Alcohol Consumption. Second Report. World Health Organization, Geneva.
- WHO Regional Office for South-East Asia. (2006). Reducing harm from use of alcohol: community responses (Alcohol Control Series, No. 5). World Health Organization, New Delhi.
- Image from: publik16 <http://www.flickr.com/photos/publik16/3092071922/>

SLUMS

1. INDIVIDUAL EMPOWERMENT - HEALTH LITERACY AND HEALTH BEHAVIOUR

Education on urban agricultural options for the urban poor has been implemented in Kenya, to improve skills and knowledge about healthy and sustainable food production in urban settings, to reduce food insecurity for those living in slums (Knowledge Network on Urban Settings (KNUS), 2008). Other strategies to improve health literacy can be successfully delivered in slum settings, although innovative approaches may be required to compensate for the lack of formal settings and infrastructure, for example by adapting to where people congregate, be it bars in Venezuela or dance halls in Kenya, or private pharmacies (Unger & Riley, 2007). Hand washing education together with distribution of soap have been successful in promoting hand washing and reducing diarrhoea in urban slum settings (Curtis & Cairncross, 2003). Education sessions targeted at police and health workers, for example in Bangalore, have also been important in changing attitudes regarding the situation of slum dwellers, and have resulted in improvements in the responses of these services to complaints such as domestic violence (United Nations Human Settlements Programme (UN-HABITAT) & World Health Organization (WHO), 2008; Murthy et al., 2008). Other important strategies to improve health literacy and health behaviour for slum dwellers include improving access to education and literacy, access to family planning education and resources, door to door health campaigns, and training of local community educators, providing health manuals to all households, providing child health and first aid training for mothers and incentives for visiting health centres (Knowledge Network on Urban Settings (KNUS), 2008).

2. COMMUNITY EMPOWERMENT

Community level interventions aiming to build social capital and cohesion among urban slum dwellers have proven successful in areas such as Thailand and India (Knowledge Network on Urban Settings (KNUS), 2008), where fostering horizontal linkages and peer groups among the poor were key factors in increasing access to power. These peer groups can become intermediary organizations to network with other partners (NGOs, donors, governments) to lobby for



increased access to social, technical or financial resources, including access to better health, such as the “demand-led participatory approach” for the construction of toilets in Mumbai slums (Chinai, 2002). In South Africa, community mobilization and increased social capital have been achieved by linking a micro-finance scheme with participatory learning/action training programme (Pronyk et al., 2008). A community mobilization project in Sao Paulo, Brazil, involved partnership between the community and police against violence, contributing to a 50% reduction in homicide and violent crimes (Knowledge Network on Urban Settings (KNUS), 2008).

3. STRENGTHENING HEALTH SYSTEMS

Adequate data collection regarding the needs of slums populations is required to inform health systems strengthening. The Bangalore Healthy Urbanization Field Research Site followed four steps in the Healthy Urbanization Project implementation: situation analysis (surveying slum dwellers as well as a number of government organizations and services providers), strategy development, multisectoral stakeholder implementation/evaluation, and advocacy/social mobilization (Murthy et al., 2008). A central component to implementing many of the recommendations of this project was the support of primary health care facilities, including addressing access barriers such as adding in extra bus services to enable slum dwellers to attend clinics. Tools such as the Urban Health Equity and Response Tool (Urban HEART) proposed by the Knowledge Network on Urban Settings (KNUS) of the WHO Commission on Social Determinants of Health can assist ministries of health generate evidence to assess and respond to unfair health conditions and inequity in the urban setting. Cash transfers for slum dwellers can support gaps in the social protection system. Urban cash transfer programs, such as Mozambique's Food Subsidy Programme (Knowledge Network on Urban Settings (KNUS), 2008), delivered through elected community representatives can help prevent inadequate food consumption for slum dwellers. Community banking schemes have also been used to pool funds for healthcare costs, to overcome access barriers posed by user-charges.

4. PARTNERSHIPS AND INTERSECTORAL ACTION

Local governments, particularly in relation to urban planning, building codes and land tenure regulations have strong potential to impact on the living conditions and wellbeing of slum dwellers. There are a number of examples of intersectoral action in these areas, often in partnership with slum dwellers' organisations. In Namibia, lowering the minimum plot-size and infrastructure requirements by local authorities meant that more low income households could afford a legal housing plot (Muller & Mitlin, 2007). Partnerships with other government agencies have been successful in improving living conditions for slum dwellers, such as sanitation and public transport authorities, in improving public transport access and reducing polluting types of vehicles (Kumaresan, 2008) Public private partnerships have also been used in slum upgrading, for example in an urban slum on government land in Cambodia. In an agreement with a private developer, the land was divided into 3 portions, with one portion retained by the government, six-storey apartment blocks for free housing built by the developer on the second portion, and the remaining land given to the developer for business development (United Nations Human Settlements Programme (UN-HABITAT) & World Health Organization (WHO), 2008). The Commission on Social Determinants of Health led to the development of a UN-HABITAT/WHO partnership, to provide global guidance on improving health in urban settings, including fostering increased action on urban health and mobilizing additional resources from other partners

(United Nations Human Settlements Programme (UN-HABITAT) & World Health Organization (WHO), 2008).

REFERENCES

- Chinai, R. (2002). Mumbai slum dwellers' sewage project goes nationwide. *Bulletin of the World Health Organization*, 80(8), 684-685.
- Curtis, V., & Cairncross, S. (2003). Effect of washing hands with soap on diarrhoea risk in the community: a systematic review. *The Lancet Infectious Diseases*, 3(5), 275-281. doi: 10.1016/S1473-3099(03)00606-6.
- Knowledge Network on Urban Settings (KNUS). (2008). Our cities, our health, our future. Acting on social determinants for health equity in urban settings. Report to the WHO Commission on Social Determinants of Health from the Knowledge Network on Urban Settings. World Health Organization.
- Kumaresan, J. (2008). Health System Strengthening using Primary Health Care Approach. Panel A: Equity in Health Topic: Healthy urbanization and social determinants of health. Regional Conference on "Revitalizing Primary Health Care" Jakarta, Indonesia, 6-8 August 2008. WHO, SEARO. Retrieved from http://www.searo.who.int/LinkFiles/Conference_Panel-A3.pdf.
- Muller, A., & Mitlin, D. (2007). Securing inclusion: strategies for community empowerment and state redistribution. *Environment and Urbanization*, 19(2), 425-439. doi: 10.1177/0956247807082822.
- Murthy, T., Devi, K., Gayatri, Varghese, C., Rajan, K., Venkataraman, K., et al. (Eds.). (2008). An Enquiry into the Social Determinants of Health Through Healthy Urbanization Learning Circles. Report of the recommendations and follow-up actions (Collaborative project of WHO-Kobe Centre, WHO India & SEARO, Bruhat Bengaluru Mahangara Palike and Partners). WHO, India Country Office, New Delhi, India. Retrieved from http://www.searo.who.int/LinkFiles/SDH_BHUP_Bangalore.pdf.
- Pronyk, P. M., Harpham, T., Busza, J., Phetla, G., Morison, L. A., Hargreaves, J. R., et al. (2008). Can social capital be intentionally generated? a randomized trial from rural South Africa. *Social Science & Medicine* (1982), 67(10), 1559-1570. doi: 10.1016/j.socscimed.2008.07.022.
- Unger, A., & Riley, L. W. (2007). Slum health: from understanding to action. *PLoS Medicine*, 4(10), 1561-1566. doi: 10.1371/journal.pmed.0040295.
- United Nations Human Settlements Programme (UN-HABITAT), & World Health Organization (WHO). (2008). Report on Workshop on Sustaining Action on Social Determinants of Health in Urban Settings. 9-10 July 2007, Gigiri, Nairobi, Kenya. World Health Organization, Japan. Retrieved from http://www.who.or.jp/2008/UN_HABITAT_WHO_WORKSHOP.pdf.
- Image from Richard Franco http://www.flickr.com/photos/richard_franco/136577473/ (Mobile immunisation team in the Calcutta slums)

HEALTHY AGEING

1. INDIVIDUAL EMPOWERMENT - HEALTH LITERACY AND HEALTH BEHAVIOUR

Successful risk reduction programmes directed at older populations share certain characteristics that make them effective in changing health behaviour, such as being anchored in behaviour change theory, using tailored and personalized interventions, being sufficiently intensive, and complemented by adequate social supports (Goetzel et al., 2007). Programmes appear to work effectively even if they are not delivered face-to-face, but instead provided by telephone, internet, and mail (Goetzel et al., 2007). Health promotion programmes that engage older participants in self-care activities and increase their involvement in healthcare decision-making can achieve long-term behaviour change and risk reductions (Goetzel et al., 2007). Education combined with on-road training and physical retraining for older drivers improves driving performance and knowledge, but an educational intervention alone is not effective in reducing crashes (Korner-Bitensky, Kua, von Zweck, & Van Benthem, 2009). Classroom education has been used in Colombia, to educate youth about the needs of older people (Tout, 1992).

2. COMMUNITY EMPOWERMENT

There are a number of examples from developing countries where empowerment programmes have been used to overcome the problems of abandonment and destitution among older people, brought about by poverty, urbanization and changing family structures. In Colombia, a bakery was acquired so that older people could be employed in bread baking, donating loaves to institutions, and selling half the loaves on the street, associated with projects to improve housing conditions (Tout, 1992). The cultivation and sale of herbs by older people was promoted in Vilcabamba in Ecuador, and in Jamaica a memory bank was established for preserving cultural traditions leading to the revitalization of abandoned industries and contributing to the social capital of the whole community (Tout, 1992). In more developed countries, many aged care facilities already have residents' committees and other forms of organization, and participation in place, and these represent an opportunity to further build capacity and empower older residents to take more control over their lives (Harris, Grootjans, & Wenham, 2008). Befriending schemes



have been used to reduce loneliness and improve social networks and participation, especially with older women (Herrman, Saxena, & Moodie, 2005).

3. STRENGTHENING HEALTH SYSTEMS

Health services play an important role in keeping older people healthy and maximizing their quality of life. Simple interventions, such as the provision of hearing aids through primary care, can improve older people's social and cognitive functioning as well as their mental health (Herrman et al., 2005). Ageing is not in itself a disease process - with health systems that incorporate disease prevention, early detection and treatment throughout the life-course, as well as social protection, it is possible to compress the disability experienced by older adults into a few short months before death (Fries, 1983). A modelling exercise in China demonstrated that "eminently feasible improvements in diet and smoking" can offset the anticipated adverse effects of ageing on the rising incidence of coronary heart disease in Beijing (Cheng et al., 2009). Aged living and care accommodation represents a potential context in which to implement the settings approach to health promotion. This could improve the lives of older people by providing safe, healthy and aesthetically pleasing, environments that are providing space for activities and socializing (Harris et al., 2008). Other health promotion efforts, for example nutritional education to prevent malnutrition in older adults, will not be maximally effective unless part of a wrap-around system that addresses other barriers to healthy nutrition in older adults, such as mobility, vision, transport, income and social support.

4. PARTNERSHIPS AND INTERSECTORAL ACTION

Active ageing is identified as a core theme in the WHO Age-friendly cities project (World Health Organization, 2007), an example of an intersectoral approach to generate strong local political commitment and to introduce policies and planning processes that will ensure the optimization of opportunities for health participation and security in order to enhance the quality of life as people age. This project involves many sectors of society, including older city dwellers, to describe the advantages and barriers that they experience in eight areas of city living: housing, social participation, respect and social inclusion, civic participation and employment, communication and information, and community support and health services. The first phase of the project resulted in a global guide (World Health Organization, 2007) that offers a checklist outlining the essential features of an age-friendly city in relations to the eight above-mentioned areas. Intersectoral efforts to promote healthy ageing in the Czech Republic included working with the education department to develop computer skills for older people, and with the transport department to facilitate their use of public transport (Ståhl, 2006). There are examples of intersectoral action on specific areas where there is a clear link between the health of older people and a policy in another area, such as between the price of fuel and deaths of older people from hypothermia (Ståhl, 2006).

PUTTING IT ALL TOGETHER: CASE-STUDY OF AN INTEGRATED APPROACH

Istanbul's experience with Age Friendly Cities (AFC) (Ciftci, 2009), demonstrates many elements of an integrated approach to health promotion. Beginning in 2006, the Istanbul Metropolitan Municipality took leadership of the project, implementing the WHO "Age-friendly Cities Guide" with the help of many civil society partners as governmental and non governmental organizations

of Istanbul. An action plan was jointly developed, resulting in improvements in the following areas:

- **City Council:** There was previously no department or representative body for older people in the City Council of Istanbul, and the Council committed to establish an Istanbul commission for older people's services.
- **Housing:** The two biggest government housing companies in Istanbul committed to apply all of the items described in the AFC checklist. Now Istanbul has an affordable supply of safe and comfortable housing for older residents. In most of the buildings, apartments are designed especially for them, on the first two floors, with a convenient interior layout and level surfaces.
- **Metropolitan Planning Department:** New developments in Istanbul now include increased consideration of green spaces, outdoor seating, pedestrian crossings, situating essential services together, and age-friendly recreational areas.
- **Transportation:** The Istanbul Metropolitan Municipality, the traffic department and the government company responsible for public transport in Istanbul worked together to make public transport more age-friendly. Public transportation is 50 % cheaper for older people, and specialized transportation is available for people with disabilities. New regulations are planned for transport stops and stations in order to maintain the safety of elderly people, and the number of priority parking and drop off spots for people with special needs has been increased.
- **Health services:** Efforts have been made to strengthen health systems to provide more gerontology services and staff in health institutions, and to improve staff training to make health services more age-friendly. The Health and Social Services Department has started to give support to people with decreased mobility to attend cultural activities and essential services (such as hospitals, banks, etc) through the use of specially designed vehicles.
- **Community strengthening:** Collaboration with the Ministry of Education has led to thousands of primary and high school students undertaking "social responsibility projects" with older people. Each local government in Istanbul has committed to ensure at least one restaurant or cafe in their district is accessible, affordable and safe, and these are a frequently used social setting for older people. Community centres for older people are being established, to socialise together and with the younger generation in various local community spots. Elderly clubs, which were not discussed before, are now in the agenda of every mayor of townships of Istanbul. Efforts, including knowledge-exchange programmes, have been made to strengthen the volunteer sector for the elderly, focusing especially on ways to increase participation from the younger population in the community.

After the implementation of the project, older people in Istanbul report that they are able to be more physically active, and have more opportunities for social interaction. When developing their own approach, Istanbul found that learning from the experiences of other cities with AFC was especially helpful. To encourage this further, Istanbul hosted a meeting in 2008 attended by 6 different countries participating in AFC, to share successful practices. Istanbul has also now partnered with Essen, in Germany, on the "Ageing In A Foreign Land Project" to improve services for older people who have migrated to different countries. Other cities in Turkey and some other

countries are now taking part of the new WHO Network of Age-friendly Cities to replicate similar steps as Istanbul.

REFERENCES

- Cheng, J., Zhao, D., Zeng, Z., Critchley, J., Liu, J., Wang, W., et al. (2009). The impact of demographic and risk factor changes on coronary heart disease deaths in Beijing, 1999-2010. *BMC Public Health*, 9(1), 30. doi: 10.1186/1471-2458-9-30.
- Ciftci, A. (2009). Turkish Experience On Age-Friendly Cities. Health and Social Services Department, Istanbul Metropolitan Municipality.
- Fries, J. F. (1983). The compression of morbidity. *The Milbank Memorial Fund Quarterly. Health and Society*, 61(3), 397-419.
- Goetzel, R. Z., Shechter, D., Ozminkowski, R. J., Stapleton, D. C., Lapin, P. J., McGinnis, J. M., et al. (2007). Can health promotion programs save Medicare money? *Clinical Interventions in Aging*, 2(1), 117-122.
- Harris, N., Grootjans, J., & Wenham, K. (2008). Ecological aging: the settings approach in aged living and care accommodation. *EcoHealth*, 5(2), 196-204. doi: 10.1007/s10393-008-0176-y.
- Herrman, H., Saxena, S., & Moodie, R. (Eds.). (2005). *Promoting Mental Health: Concepts, Emerging Evidence and Practice*. World Health Organization, Geneva.
- Korner-Bitensky, N., Kua, A., von Zweck, C., & Van Benthem, K. (2009). Older driver retraining: An updated systematic review of evidence of effectiveness. *Journal of Safety Research*, 40(2), 105-111. doi: 10.1016/j.jsr.2009.02.002.
- Ståhl, T. (Ed.). (2006). *Health in all policies: prospects and potentials*. (Finland): Ministry of Social Affairs and Health. Retrieved September 1, 2009, from <http://openlibrary.org/b/OL16258286M/Health-in-all-policies>.
- Tout, K. (1992). Does 3rd age plus 3rd world equal 3rd class? *Community Development Journal*, 27(2), 122-129.
- World Health Organization. (2007). *Global Age-friendly Cities: A Guide*. World Health Organization, Geneva. Retrieved from http://www.who.int/ageing/publications/Global_age_friendly_cities_Guide_English.pdf.
- Image from: Health and Social Services Department, Istanbul Metropolitan Municipality