

Tobacco Control Programmes and Prevention of Non-communicable Diseases (NCDs): A way forward

A Discussion Paper

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EXECUTIVE SUMMARY

Non-communicable diseases (NCDs) are one of the major threats to health and development in the 21st century. A leading cause of death globally, the four main types of NCD – cardiovascular diseases, cancers, chronic respiratory diseases and diabetes – were responsible for 68% of deaths globally in 2012. More than 40% of these NCD deaths occurred before the age of 70. 73% of all NCD deaths, and 82% of premature deaths, occurred in low- and middle- income countries (LMICs). All age and socioeconomic groups are vulnerable to the risk factors driving the global NCD epidemic, whether from unhealthy diet, lack of physical activity, tobacco use or the harmful use of alcohol. Without action the human, social and economic costs of NCDs will continue to rise and eventually overwhelm the capacity of countries to address them.

The WHO's Global Action Plan for the Prevention and Control of NCDs 2013-2020 was endorsed by the World Health Assembly in 2013. This plan laid out 9 voluntary global targets and provided Member States and the public health community with policy options to achieve them. If governments can make progress against these 9 NCD risk factor-related targets by 2025, they should be able to achieve the primary target: a 25% reduction in the risk of premature mortality from NCDs.¹ Delegates at the United Nations General Assembly high-level NCD review meeting in 2014 agreed that there is no reason why any country – regardless of income status – should delay moving forward with the implementation of NCD interventions. All countries should aim to attain the global targets by 2025.¹

Despite evidence of political commitment, insufficient attention has been devoted to NCDs till date and expressions of support have not been followed by concrete actions including availability of both financial and human resources required to reduce prevalence. Consensus at a global level is now emerging for adoption of an integrated, whole government approach to mitigate the growing burden of NCDs focusing and addressing all major modifiable risk factors. These proposals however have also aroused concerns on its ability to cater to specialist functions, such as tobacco control and if, given the maturity of programmes and policies currently in place at the national level, these will be diluted, thus compromising the effective programmes that already exist.

For example, significant progress has been made in tobacco control at national and global levels. Backed by the World Health Organization's Framework Convention on Tobacco Control, the only legally-binding international health treaty, it has delivered a decade of evidence-based strategies and solutions, honed over time and with the input of experts from the 181 countries who are party to the treaty. Development of regional and national programmes level to prevent NCDs would proceed more rapidly and effectively if drawn from the lessons learnt in tobacco control.

The challenge now is to be specific about what an integrated approach for tobacco control and other modifiable risk factors should entail and how the lessons learnt from tobacco control over the last two decades can be applied.

An integrated approach could ensure that all modifiable risk factors are addressed. But it must take into account the vital roles of various organisations and stakeholders in creating an effective, nationally focused, targeted and sustainable approach.

For integration of NCD risk factors, without impeding the existing gains in tobacco control, The Union recommends the following:

- Governments commit to establishing dedicated NCD units to coordinate whole-of-government action led by Ministry of Health and with the support of Ministry of Finance and treasury.
- Collaboration between Governments and civil society to strengthen NCD efforts by applying the lessons from tobacco control to other NCD risk factors
- Governments give priority to creating a sustainable source of funding to address tobacco control and other NCD risk factors.
- The Union develop an action plan to assist governments to take on integration of its Programmes related to prevention of NCDs
- The Union offer to assist countries with content discussion for developing national NCD targets' plans, monitoring and reporting processes
- Civil society, including NGOs and academia advocate to keep NCDs and the need for sustainable health financing on the agenda of governments.
- Governments, civil society and global partners develop policies for engagement with private sector and related industries

Since the governments and civil society have as specific role to play we also recommend the following

For Ministries of Health:

- Establishment of a dedicated NCD unit housed within the Ministry of Health (MoH) backed by a national action plan and allocation of resources for its implementation.
 - The NCD unit, while housed within the MoH, should serve as a coordinating body for a whole-of-government approach with the understanding that most NCD policy interventions will come under the jurisdiction of other ministries. The MoH should have the lead and a strong representation on policies which impact public health developed and adopted by other ministries

- Development of detailed national action plans to decrease the risk factors associated with NCDs including maintaining strong focus on TC, creating new resources through raising tobacco taxes and clear policy guidelines for engagement with the private sector
- For countries that have not yet ratified the WHO FCTC or have made little progress in policy development for tobacco control and face a high prevalence of smoking, keep the tobacco control department separate as a focal point for FCTC compliant policy development until more progress is made (ensuring close collaboration between tobacco control and the NCD departments)
- Meaningful involvement of national stakeholders, including civil society, in all public health policy debate.

For The Union and other civil society organisations:

- To undertake activities to increase the capacity of national stakeholders to develop operational plans for integration while continuing to work in close partnership with other stakeholders to ensure effective, multisectoral collaboration occurs on NCDs.
- To cement The Union's leadership role in bringing content discussion to national NCD prevention efforts with a focus on the development, passage, and implementation of specific policy measures.
- Continued contribution to the existing knowledge base on effective approaches to achieve policy change for NCD control.
- Civil society, including non-governmental organisations (NGOs) and universities need to assume an important role in promoting the integrated NCD agenda and keep this on the political agenda of the governments.
- Additionally, The Union should consider, based on its experience with the Global Fund to Fight AIDS, Tuberculosis and Malaria, advocating for the creation of an international funding scheme to achieve NCD goals by 2025.

INTRODUCTION

NCDs overview

Non-communicable diseases are receiving increased attention globally, but specific actions have not always accompanied policy statements. These diseases - comprising mainly cardiovascular diseases, cancers, chronic lung diseases, and diabetes - are the leading causes of death across the globe. The majority of these deaths occur in low- and middle- income countries (LMICs). The combined burden of NCDs is rising fastest among these countries.² Despite their rapid growth and inequitable distribution, evidence shows that much of the human and social impact caused each year by NCD-related deaths could be averted through comprehensible and cost-effective interventions.⁴

A significant percentage of NCDs are caused by four main behavioural risk factors: tobacco use, physical inactivity, harmful use of alcohol and unhealthy diet. Exposure to these modifiable risk factors – either individually or combined – impacts on other underlying metabolic and physiological causes of NCDs, such as obesity and raised blood pressure, further driving the global NCD epidemic. One effective strategy to reduce the global burden of NCDs is to reduce the exposure of individuals and populations to these modifiable risk factors and to prevent emergence of the preventable common risk factors.³

Tobacco control as an advanced public health programme

Reducing tobacco use is one of the most effective strategies to help countries achieve the global targets set out in the Political Declaration on NCDs (2011) by the UN General Assembly to propel the prevention and control of NCDs. Indeed, tobacco use has been described as the most policy-responsive NCD risk factor.⁵ Backed by an international health treaty - the WHO Framework Convention on Tobacco Control (WHO FCTC)⁶ - tobacco control has delivered a long history of evidence-based solutions from which the challenges of NCD prevention could benefit.

An integrated approach to NCDs

Consensus is emerging among public health specialists and policy makers for an approach to mitigate the growing burden of NCDs which addresses all major modifiable risk factors as an integrated package. Without a comprehensive plan, the drive to integrate work has aroused concerns that specialist functions will be compromised, and that existing tobacco control efforts may face dilution, thereby slowing the momentum and gains that have been made over the past two decades.⁷ The term "integration" means different things to different people.⁸ Little clarity currently exists on what an integrated programme for NCDs might look like and how it might be delivered.

Tobacco control offers many important lessons for NCD prevention and this model should be explored and taken into account throughout development of an integrated approach. Integrated approaches can be more cost-effective and sustainable than vertical approaches⁹. While

literature on NCDs recommends integration, there are more examples of policies in favour of integration than concrete examples of integrated programmes functioning in practice. And there has been minimal discussion about the potential effects of integration on tobacco control. It is therefore important to consider how tobacco control can be integrated to maximise gains and avoid the risk of dilution.

How to define an integrated approach

The immediate challenge is to define what an integrated approach for tobacco control and NCDs might look like. This paper discusses the growing burden of NCDs, policy responses to date, pros and cons of integration of tobacco control and NCDs, and finally offers recommendations on ways forward for Ministries of Health and NGOs. It is hoped that this paper will provide useful guidance on the issue of integrating tobacco control and NCDs, with the aim of improving global health and wellbeing.

BACKGROUND

Non-communicable Diseases

Of the 57 million deaths that occurred worldwide in 2008, 36 million, or two thirds, were due to NCDs. Chiefly cardiovascular diseases, diabetes, cancers, and chronic respiratory diseases, they have reached epidemic proportions and the burden is predicted to continue to rise globally along with the ageing population.¹⁰ Mental health issues are also an important non-transmissible source of ill health, although not currently included in the official WHO definition of NCDs. Including depression, over half (54%) of disability-adjusted life years worldwide were due to NCDs in 2010, compared with 43% in 1990.¹¹

NCDs, poverty and development

Contrary to popular belief about the spread of NCDs with high income countries more affected, the data shows that LMICs are disproportionately facing the disease burden with 86% of global NCD deaths occurring in these regions. Moreover, age-specific NCD death rates are nearly twice as high in LMICs as in high-income countries.¹²

Poverty and NCDs are clearly interlinked. The epidemic threatens progress towards global poverty reduction initiatives, including the Millennium Development Goals (MDGs) and the post-MDG development agenda. The financial burden of NCDs, is forcing millions of people into poverty each year, as households face increased costs for health care and decreased income through incapacity of primary earners.¹³ Recognising this, the UN conference on sustainable development in 2012, Rio+20, referred to non-communicable diseases (NCDs) as “one of the major challenges for sustainable development in the 21st century” - the cumulative economic losses are predicted to reach US\$7 trillion over the next 15 years.³

Risk factors

The four major NCDs share the same modifiable risk factors: tobacco use; harmful use of alcohol; physical inactivity; and unhealthy diet. Current rates of NCDs in any population reflect past exposure to these risk factors and future rates will largely be determined by current levels of exposure to risk factors.¹⁰ Over 80% of coronary heart disease, up to 90% of Type 2 diabetes and 33% of cancers could be prevented by changes in lifestyle factors - particularly smoking cessation, improved diet, weight maintenance and increased physical activity.⁴

Both economic development and urbanisation tend to be accompanied by increased prevalence of NCDs; however such increases are not inevitable. Increased exposure to tobacco smoking, excessive consumption of alcohol and fast foods, and increased use of motorized vehicles can be addressed. So too can the lack of good infrastructure for purposive physical activity and active recreation in ever-growing cities. Successful health policies can mean that economic development and urbanisation are accompanied by healthier lifestyles and nutrition, and consequently with reduced rates of NCDs.⁴

Tobacco use as a major contributor to NCDs

Tobacco use causes a range of diseases. It harms nearly every organ in the body.¹⁴ Tobacco kills up to half its long-term users, amounting to nearly 6 million deaths per annum. Economic costs are 1 – 2% of the global gross domestic product, every year.¹⁵ More than five million of these deaths are the result of direct tobacco use while more than 600,000 are the result of non-smokers being exposed to second-hand smoke. Left unchecked, the global death toll from smoking is projected to increase to 8 million by 2030.³

In comparison, about 3.2 million deaths annually are caused by insufficient physical activity and about 1.7 million deaths by low fruit and vegetable consumption. Of the 2.3 million annual deaths caused by harmful drinking, half are NCD-related. In terms of attributable deaths, elevated blood pressure is the leading NCD risk factor globally, causing an estimated 16.5% of global deaths, followed by tobacco use (9%), raised blood glucose (6%), physical inactivity (6%) and obesity (5%).¹⁶

Global and national attention

Prior to July 2014's "Political Declaration of the High-level Meeting of the General Assembly on the Prevention and Control of Non-communicable Diseases" insufficient attention had been devoted to NCDs, despite their clear impact on global public health. Donor funding is extremely low.¹ New estimates indicate that just 2.3% (\$503 million) of overall development assistance for health (DAH) in 2007 was dedicated to NCDs. A review of resolutions and statements about the strengthening of health systems found that, of the sixteen resolutions studied, only three contain any reference to the need for a response to the growing burden of chronic diseases in LMICs.¹⁷ Another estimate suggests that while overall DAH is growing, with \$31.3 billion allocated in 2013, NCDs received just 1.2% (\$377 million) despite almost two-thirds of global deaths being due to NCDs.¹⁸ And just one-fifth of this was spent on tobacco control specifically.

A group of public health experts from The Lancet NCD Action Group and the NCD Alliance wrote that even where plans do exist, implementation is often slow; that other global health issues remain of more pressing concern; that growing attention to the urgency of NCDs has not led to immediate action; and that time is needed for the challenges posed by the NCDs to be understood and acted on.¹² Thus far NCDs do not have the political support and commitment needed to reduce their prevalence.

Communicable diseases have historically been higher on the political agenda. Despite the urgent threat of NCDs to populations and economies, health priorities have not yet shifted to reflect this.

A factor leading to the insufficient global response to NCDs is perhaps the public demand for ensuring provision of clinical, curative care either by governments directly or through the private sector. At present there is greater political support for a curative approach to health, yet prevention must become a priority if the global burden of NCDs is to be reduced. A reduced NCD burden will give health services greater capacity to cope with existing illness and population needs. A balance needs to be struck to ensure due emphasis on both preventive and curative care. Recognising this, the American Cancer Society has changed its expressed focus from “finding the cure” to “the fight against cancer”, with the new message “For 100 years, the American Cancer Society has been leading the way to transform cancer from deadly to preventable.”¹⁹

International responses to NCDs

There is a strong historical precedent for prioritising infectious disease over NCDs. Global agendas require time to catch up with the epidemiological shift from communicable to non-communicable disease. In recent years the focus has been intensified in response to the rapidly growing prevalence and death rates, and the threat to economic and social development. The global response to NCDs, though still limited, is growing and includes actors outside the health system.¹³ The major international responses are listed below, in Table 1.

Table 1. The Global Response to NCDs (2003 - 2015)

Response	Year	Key points
WHO Framework Convention on Tobacco Control (WHO FCTC)	2003	First legally binding global health treaty negotiated under the auspices of WHO; aimed at the control of a key NCD risk factor; contains demand and supply reduction measures; contains provisions that outline multisectoral action on the social determinants of tobacco use; sets important precedent for future international decisions in its call for a comprehensive, multisectoral approach that goes beyond health to encompass trade, tax, education, justice and law enforcement, environment and agriculture.
WHO Global Strategy on Diet, Physical Activity and Health	2004	Recommends action at multiple levels on two key modifiable risk factors for NCDs: unhealthy diet and physical inactivity.
Action Plan for the Global Strategy for the Prevention and Control of NCDs 2008-2013	2008	Consolidates comprehensive, multisectoral action on the four main NCDs into one plan with performance indicators. Most recommendations involve multisectoral action on social determinants of NCDs.
Recommendations on the Marketing of Foods and non-Alcoholic Beverages to Children	2010	Consists of policy-level recommendations aimed at changing the food environment. Recommendations represent explicit recognition of a life-course approach to NCDs by highlighting unique vulnerabilities of children to both marketing and to NCDs.
Global Strategy to Reduce Harmful Use of Alcohol	2010	Focuses on ten areas of national action including leadership; health services; community action; drink-driving; alcohol availability, marketing, pricing and informal production; impact mitigation; and monitoring.
'Best Buys'	2011	Identifies low-cost, high-return interventions to prevent and control NCDs; highlights multisectoral action on social determinants.
UN High-level Meeting on the Prevention and Control of Non-communicable Diseases	2011	Only the second time in its history that the General Assembly met to discuss a health issue (the first one was on AIDS in 2001). Led to the UN Political Declaration on NCDs.
UN Political Declaration on NCDs	2011	Recognises NCDs as a global health concern and a threat to social and economic development, including the MDGs; sets global priorities to tackle NCDs; commits the UN to five areas of action (Reduce risk factors and create health-promoting environments; strengthen national policies and systems; international cooperation, including collaborative partnerships; research and development; and monitoring and evaluation); calls on countries to develop multisectoral national policies and plans on NCDs by the end of 2013; stresses the need to adopt whole-of-government and whole-of-society approaches in the NCD response.
World Conference on the Social Determinants of Health	2011	Brought together partners to discuss action on drivers of health and health inequities, including NCDs; resulting Rio Declaration expressed "determination to achieve social and health equity through action on social determinants of health and well-being by a comprehensive intersectoral approach"; drew explicit attention to the role of non-health-sector actors in improving health and reducing health inequities.
25 by 25 goal	2012	Set a global target of a reduction in NCD-associated premature mortality by 25% by 2025.
UN Rio+20 Conference on Sustainable Development	2012	Unequivocal in its call for concerted action on NCDs; stressed the importance of national policy and plan development.
WHO Global Action Plan for the Prevention and Control of NCDs 2013–2020	2013	Sets out specific targets for country action on NCDs.
Global Monitoring Framework on NCDs (GMF)	2013	Comprises nine voluntary global targets and 25 indicators aimed at preventing, controlling and tracking the four main NCDs and their key risk factors.

High-Level Panel of Eminent Persons on the Post-2015 Development Agenda	2013	Preventing 'priority' NCDs is a proposed target.
Ashgabat Declaration on the Prevention and Control of NCDs	2014	High-level European government support to three areas: NCDs and development; tobacco-free Europe; and national responses to NCDs. Tobacco control is being used as an entry point due to low-cost implementation and self-funding mechanism through taxation
EU Summit on Chronic Diseases	2014	First ever EU summit to address NCDs; addressed the medical, social and economic burden of NCDs in the EU; brought together key policymakers, stakeholders, and interest groups to explore ways to tackle NCDs effectively; EC called for political leadership to address the burden of chronic diseases.

Current scenario - insufficient progress to date?

Despite evidence of political commitment to addressing NCDs, more strategic planning needs to be done at global and national levels to tackle the NCD burden. Expressions of support for NCD programming have not yet been followed by funding or the other resources required to act on those commitments. Strategies to target specific risk factors have also faced significant challenges.

The WHO FCTC, for example has been widely adopted and made significant ground for public health. But uptake has not been universal, nor has implementation been without problems. Securing symbolic support has been easier than enacting concrete measures. Government officials at the UN 'Rio+20 Conference on Sustainable Development' in June, 2012, for example, called for accelerated implementation of the WHO FCTC both in the Political Declaration, 'Rio Declaration on Social Determinants of Health', and the outcome document 'The Future We Want.' In response, a UN Economic and Social Council resolution of July 2012 emphasized the need for the UN to work across sectors to facilitate WHO FCTC implementation, specifically encouraging, "integration of the World Health Organization Framework Convention on Tobacco Control implementation efforts within the United Nations Development Assistance Frameworks, where appropriate, in order to promote coordinated and complementary work among funds, programmes and specialized agencies."²⁰ Till now recognition of the need for action has not necessarily translated into anything beyond than symbolic commitment as indicated by the relative levels of DAH funding.

Uptake of the Global Strategy on Diet, Physical Activity, and Health is also lagging. A review of government policies in 140 LMICs to identify those that address salt consumption, fat consumption, fruit and vegetable intake, or physical activity found that: "More than eight years after the WHO Global Strategy was agreed upon, only a minority of the LMICs included in this analysis have comprehensive policies in place."²¹

NCD policies in low- and middle-income countries

Although one objective of the WHO Global Action Plan on NCDs was "to establish and strengthen national policies and strategies for the prevention and control of NCDs... more than half of LMICs do not have a national NCD policy, despite the growing burden of such diseases within these countries."²² The literature^{23,33} indicates that there are several barriers to successful

implementation of the WHO FCTC and other international health policy documents on NCDs, including:

- the global financial crisis that began in 2008, which has eviscerated government and donor budgets
- failure of governments and funding agencies to prioritise NCDs and failure to commit financial and technical resources
- tobacco industry interference specifically in preventing or delaying implementation of the WHO FCTC
- the absence of national NCD policies and a weak national capacity for policy formulation and implementation in LMICs

ADDRESSING HEALTH THROUGH A TREATY

Decades after the evidence linking tobacco use to disease was clear and despite the ever increasing burden of disease caused by tobacco consumption, interventions to reduce tobacco use continued to focus on individual-based approaches like cessation advice. It was believed that by educating people about the harms of tobacco use, with a special emphasis on educating children, rates of use would decline. Instead we got educated smokers continuing to smoke as before. School-based programmes became the norm, but they omitted well-designed long-term evaluations that would reveal whether they were achieving their desired effect. For decades, such programmes were carried out. Tobacco use continued to rise steadily as industry advertising and promotion took effect, as did the widespread acceptability of smoking and its perceived affordability.²⁴

Over time, tobacco control workers realised that it made little sense to give the tobacco industry the monopoly over policy debates.²⁵ Health groups, having been “generally absent from policy discussions” while “the tobacco industry made itself heard”²⁶ began to approach tobacco control from a policy perspective. As laws and policies - specifically taxation, comprehensive bans on advertising and promotion, expansion of smokefree places (which also reduced the acceptability of smoking), and graphic health warnings - became the norm, tobacco use declined significantly.²⁷ This policy oriented approach taken by tobacco control should form the basis of work for other NCD risk factors.

This recognition within tobacco control community and relevant stakeholders including policy makers for a policy-based approach as the only effective way to achieve significant and sustainable decreases in tobacco use, along with the difficulties of confronting the tobacco industry separately in every single country, led to the decision to take a global, policy-based approach under the auspices of the World Health Organization. The resulting treaty, the Framework Convention on Tobacco Control (WHO FCTC) is a landmark not only in tobacco control, but in public health. The WHO FCTC is the only legally binding health treaty, and in dealing with tobacco, it also tackles NCDs. It has been broadly ratified, with 181 Parties as of March 2015. The WHO FCTC uses a multi-sectoral approach, covering supply- and demand-side measures to reduce tobacco use. The WHO FCTC also addresses governance issues- Article 5

calls for multisectoral national plans, coordination structures, and policymaking that is independent from tobacco industry interests.²⁰ In summary, the WHO FCTC has successfully:

- raised the global profile of tobacco control
- strengthened governments in their fight against the tobacco industry, both politically and legally
- contributed to the global de-normalisation of the tobacco industry
- catalysed the formation and strengthening of transnational civil society coalitions
- facilitated the sharing of experiences, expertise and capacity among governments and non-governmental organizations
- brought new resources--political, financial and human--into the field²⁸

ADDRESSING THE TOBACCO EPIDEMIC IN THE CONTEXT OF NCD PREVENTION AND CONTROL

Though an integrated, multi-sectoral approach for any public health challenge has the potential to be both cost effective and beneficial for improving health the various modalities and practical implications of such an approach need to be analysed carefully.

It is also important to gain further understanding of the ways in which integration may affect or alter the ability of tobacco control programmes to reduce tobacco use and contribute towards the decrease in incidence of NCDs. The following sections address these issues by examining how integration will impact multisectoral partnerships, national policies, working with industry and availability of resources.

Maturity of approach within the NCDs modifiable risk factors

The programmes developed to tackle different modifiable risk factors for NCDs are at various stages of development and maturity. While there is no benefit of any form of tobacco trade or use, the same cannot be said about the other NCD related risk factors.²⁹ This factor and the availability of legislation for tobacco control at national level, and an international health treaty (WHO FCTC) makes tobacco control efforts unique. Since tobacco control has a much longer history of working towards policy change it thus has many lessons that can be directly applicable to the other risk factors, and therefore is in a strong position to strengthen the overall NCD approach.

Policies to reduce tobacco use are extremely well-researched. Though the evidence base of the impact of the NCD risk factors on global public health continues to grow, the other risk factors for NCDs do not have as much evidence to support policy approaches.³⁰ Lessons learned from tobacco control are likely to be applicable for control of the other risk factors. For example, we know that targeting behaviour changes at the individual level is no more likely to work and as with tobacco, changes to policy and the physical environment will be critical for other risk factors. The body of evidence as to what specific changes are needed (if not on how to achieve

them) is building. So, while “little exists in the literature linking fiscal policy and health promotion except in relation to tobacco”²⁰ and “there is a much larger body of evidence on intervention-related studies for tobacco than for the other two behaviors [physical activity and healthy eating]”³¹, initial evidence suggests that the enabling environment approaches taken by tobacco control will also work for the other risk factors³².

Big Industry

Important similarities exist between Big Tobacco and other industries; hence the common use of ‘Big Food’ to describe the major companies promoting products high in fat, sugar, and salt, and low in nutrients. As with Big Tobacco, Big Food also exerts significant influence over governments - this makes it difficult to pass legislation restricting related activities that are harmful to health. Article 5.3 of the WHO FCTC offers comprehensive guidance on banning tobacco industry representation from any forum related to developing policy to protect public health from the harms of tobacco. This offers an invaluable reference point for developing parallel policies to deal with other Big Industry. Public health policy development has to be independent from any commercial interests but keeping the BIG industries away would need a policy which clearly outlines the parameters of any engagement with these industries similar to Article 5.3 of WHO FCTC. Failure to learn lessons from tobacco control, in our opinion, would lead to a delay in effective policy development and thus allowing a far larger toll of disease and death from NCDs that we could otherwise prevent.

A multisectoral partnership approach

What is true of tobacco control is true of other public health issues—that a policy-based approach to change the environment in which people make their decisions will be the most effective means to changing behaviour. Sustained change requires policies that impact and environments. These methods are often low cost, have high reach, and provide a supportive environment for the more targeted interventions that can follow later. For example, a community-based programme to promote healthy eating and physical activity is unlikely to succeed if there is a lack of access to healthy foods or places for physical activity.³¹ Significant declines in tobacco use have followed strong policy measures: raising prices through taxation; decreasing attractiveness by banning advertising, promotion, and sponsorship and by placing graphic warnings on packets; and reducing acceptability by making places smokefree.³³ Similar approaches are likely to have similarly strong effects on other NCD risk factors.

In order to pass and implement the policies that reduce tobacco use, various sectors including finance, foreign affairs, trade, and agriculture must be included.¹⁷ Indeed, one of the overarching principles in the WHO Global Action Plan for the Prevention and Control of NCDs is multisectoral action. WHO recommends the sectors outlaid in table 2 for policy debate.³

Table 2. Recommended Sectors for Policy Debate

Sector	Tobacco	Physical inactivity	Harmful use of alcohol	Unhealthy diet
Agriculture	✓		✓	✓
Communication	✓	✓	✓	✓
Education	✓	✓	✓	✓
Employment	✓	✓	✓	✓
Energy		✓		✓
Environment	✓	✓	✓	✓
Finance	✓	✓	✓	✓
Food/catering	✓	✓	✓	✓
Foreign affairs	✓	✓	✓	✓
Health	✓	✓	✓	✓
Housing	✓	✓		✓
Justice/ Security	✓	✓	✓	✓
Legislature	✓	✓	✓	✓
Social welfare	✓	✓	✓	✓
Social & economic dev.	✓	✓	✓	✓
Sports	✓	✓	✓	✓
Tax and Revenue	✓	✓	✓	✓
Trade & industry (excl. tobacco)	✓	✓	✓	✓
Transport	✓	✓	✓	✓
Urban planning	✓	✓	✓	✓
Youth affairs	✓	✓	✓	✓

WHO/UN and other public health researchers' position on integration

The UN Political Declaration on NCDs “recognised that to be effective, national actions need to go beyond the health system to address the social determinants of health and prevent exposure to NCD risk factors...National governments should also collaborate with other sectors in society, such as civil society, academia, and, when relevant and appropriate, the private sector.”³⁴

WHO, has itself integrated the Tobacco Free Initiative (TFI) into Prevention of Non-communicable Diseases (PND), which falls under its Non-communicable Diseases and Mental Health Cluster. In its Global Action Plan,³ WHO states that “Effective non-communicable disease prevention and control require multisectoral approaches at the government level including, as appropriate, a whole-of-government, whole-of-society and health-in-all policies approach”. Some of the approaches suggested in the plan include:

- assessment of the Ministry of Health and of other sectors required for multisectoral action
- analyses of areas which require multisectoral action
- development of plans
- use of a framework to develop common understanding between sectors
- strengthening of governance structures, political will and accountability mechanisms
- enhancement of community participation
- adoption of other good practices to foster intersectoral action
- monitoring and evaluation

The plan suggests that “Member States can also promote change to improve social and physical environments.” According to the Global Action Plan, WHO anticipates the following benefits: “strengthened stewardship and leadership, increased resources, improved capacity and creation of enabling environments for forging a collaborative multisectoral response at national level, in order to attain the nine voluntary global targets.” The plan also refers to “constructive engagement with relevant private sector actors” which, however, should be viewed with extreme caution - its inclusion in the plan may have more to do with industry lobbying than willingness to improve public health.

According to the WHO, integration should, “become a significant component of the monitoring of the implementation of national health and development strategies that are discussed at national reviews, such as annual health sector reviews. Multi-sector platforms such as the International Health Partnership should be considered along with NCD-specific monitoring platforms. There needs to be a link with the existing efforts to monitor progress, such as those under the WHO FCTC, and those at the regional level. Global partners should closely work together to minimize duplication and fragmentation. WHO should play a leadership role in the implementation of the global monitoring framework. Because of the multi-sectoral nature of NCD prevention and control, it is desirable that progress is also reviewed at the UN General Assembly.”³⁵

Other examples

Finland has successfully reduced various NCD risk factors through an integrated model using a multisectoral approach that included regulating food labelling, tobacco regulations, and shifting agricultural subsidies to encourage low-fat alternatives.³⁶ Singapore has a Health Promotion Board, established in 2001, which engages multiple sectors in coordinated national health promotion efforts and disease management programmes to reduce NCDs including public education through the media, food labelling and tobacco control policies. In Thailand, the National Health Commission (NHC) is a cross-sectoral mechanism chaired by the Prime Minister that comprises three broad sectors: government, academia and civil society. The multisectoral approach is used to emphasize health promotion and support development of Healthy Public Policies. Brazil provides an example of how an NCD action plan can be developed quickly through high-level leadership and multisectoral coordination.³⁴

Box A. Brazil: an example response

Brazil's response to the UN political declaration on non-communicable diseases

Almost three quarters of deaths in Brazil are from NCDs. In 2011-12, President Dilma Roussef launched a national plan of action to tackle NCDs, in response to the UN political declaration on NCDs. The NCD plan was led by the Ministries of Health and Treasury. The plan involved multisectoral actions, with more than 20 sectors and stakeholder groups involved, including the government, private sector, civil society organisations, medical organisations, and the National Health Council that publishes health guidelines in Brazil. These partners and the government signed a declaration of commitments to reduce preventable NCD mortality. The plan specifically includes other government sectors: agriculture, education, sport, social communication, and the ministry of social development. The plan was presented to the tripartite council, which has representatives from the health secretaries of 27 states and more than 5000 municipalities.

An important part of Brazil's plan was tobacco control - this approach was carried over to other areas. Brazil passed a comprehensive tobacco law in December 2011, to accelerate the implementation of the WHO FCTC. The law covers smokefree environments, an increase of cigarette taxes to 85% of the retail price, health warnings, and a ban on all forms of tobacco advertising, promotion, and sponsorship. In addition, the government signed agreements with the food industry to reduce salt in processed foods and eliminate trans-fats, with an overall goal of a reduction in daily salt consumption from 12g per person to 5g by 2022. Interventions are underway in cities to promote physical activity.³⁴

The National Action Plan for Prevention and Control of Non-communicable Diseases and Health Promotion in Pakistan, officially released in May 2004, represents a collaborative initiative of the Pakistani Ministry of Health, World Health Organization Pakistan, and the non-governmental organisation Heartfile. The partnership aims to develop and implement a long-term national strategy to prevent and control NCDs and to health.³⁷

In Mexico, the National Council for the Prevention and Control of Chronic Non-Communicable Diseases was established by presidential decree. The National Council serves as the permanent coordinating body for national action on NCDs and their risk factors. The National Council connects senior health ministry executives with their counterparts in other ministries, including finance, trade, agriculture, and education. The role of the National Council includes coordination of actions among federal government agencies, and between the federal and state governments.³⁴

An example of regional collaboration is the Healthy Caribbean Coalition, which was established when heads of government of Caribbean nations recognised that collaborative programmes, partnerships, and policies that were supported by governments, non-governmental

organisations, and other regional and international partners could be effective for reducing the NCD burden.³⁴

Dealing with industry

While many lessons from tobacco control are directly applicable to other NCD risk factors, there are some clear differences related to the products themselves. While there is no need to consume tobacco, the same cannot be said of food, or some level of alcohol consumption. While these differences exist, it is nevertheless true that Big Food and Big Alcohol use similar tactics to Big Tobacco, and that they have closely observed the regulations and policies adopted by governments on tobacco control. According to WHO Director General Dr Margaret Chan, “Efforts to prevent non-communicable diseases go against the business interests of powerful economic operators. In my view, this is one of the biggest challenges facing health promotion. It is not just Big Tobacco anymore. Public health must also contend with Big Food, Big Soda, and Big Alcohol. All of these industries fear regulation, and protect themselves by using the same tactics.”³⁸

For example, it was recently revealed that Mars confectionery warned the UK government in 2012 not to pass laws on plain packaging for tobacco: “Mars is concerned that the introduction of mandatory plain packaging in the tobacco industry would also set a key precedent for the application of similar legislation to other industries, including the food and non-alcoholic beverage industries in which Mars operates.”³⁹

Business interests may also be one of the reasons for the slow response to NCDs. As Lawrence Gostin, professor of global health law and director of the WHO Collaborating Center on Public Health Law and Human Rights at Georgetown University writes, “This anaemic political response can be attributed, in part, to governments beholden to business interests. The agriculture industry lobbies for subsidies that lower prices of unhealthy foods, for example, for maize — some of which is turned into high-fructose corn syrup. The food and alcohol industries lobby for low taxation and light regulation...So too do industries that emit air pollutants. Companies and the media resist advertising limits...Without strictures such as those that the WHO FCTC places on tobacco; industries shape the policies that should be reining them in. Food and alcohol companies design and market compelling unhealthy products often with misleading labels. Despite peddling large quantities of sodium, sugar and trans-fats, junk-food companies have manoeuvred their way into schools and hospitals. Yet NCDs are often framed as a problem of individual responsibility, with prevention policies criticized as paternalistic.”²

It is a widespread practice in UN documents to call for industry participation in policy development. An approach which deals with all BIG industry carries risks especially at a national level where a lack of transparency and accountability may exist. The WHO FCTC clearly defines the parameters around tobacco industry involvement in public policy and has called it ‘an inherent conflict of interest’⁶ while there are no legal international frameworks for alcohol and food corporations involvement in public health policy or in this case NCD prevention. In our opinion a similar approach cannot be taken for all the private sector involved in NCD related work. The tobacco control community remains rightly concerned that while the signatories of

the WHO FCTC have to abide by its rules on tobacco industry's engagement in public health policy, it would be challenging to gauge their influence as industry representatives of food and alcohol are invited to the table, resulting in an easier access for the tobacco industry. Such involvement risks undoing years of concerted effort to lessen or eliminate industry interference in national and international policymaking on tobacco control.

One area where industry involvement is warranted is in the reformulation of foods to make them healthier. A harm reduction approach, would infer that as people are likely to continue to consume fast food, soft drinks and other highly processed foods, population level health improvement could be achieved by working with the food industry to reformulate these products. This approach is difficult to apply to alcohol, and in tobacco control leads directly into the controversial area of alternative products such as e-cigarettes.

In terms of comprehensive bans on advertising and information on constituents of these products, lessons learned from tobacco control indicate that relying on voluntary actions by companies is unlikely to achieve useful results. In fact, allowing the industry to make suggestions for voluntary changes to improve marketing practices (whether in tobacco or food or alcohol) is most likely to delay bans on promotion. The issue becomes more complicated when the information on the constituents needs to be displayed. While it is important to see the constituents of a food product and the consumer needs to make an informed decision on which product to buy same cannot be said or applied to any tobacco product. Any information on tobacco product' constituents or use of descriptors such as 'low' 'mild' can lead to a misperception of it being 'safe' and therefore is not allowed under WHO-FCTC. Simply there are no healthier or less harmful cigarettes but there are healthier foods.

Public education about the harm of a product including 'responsible' use is also an area that, should be regarded with caution. Adverts for public health information, e.g. an advert about responsible drinking, may in fact encourage drinking more than it makes people think about drinking responsibly. The experience of tobacco control shows that the industry will use voluntary regulations to avoid or postpone the more serious regulations mandated by government. In most cases, voluntary industry self-regulation is not an adequate replacement for government policies.

In terms of collaboration with the private sector, it is thus important to distinguish between areas where it is likely to do good and those in which it is likely to do more harm. Reformulation of food products (e.g. to reduce sodium, sugar, trans-fats, and saturated fats) makes sense; reformulation of alcohol and tobacco does not and remains questionable.

In terms of overall industry involvement, evidence exists on how the food, drink, and alcohol industries use similar tactics and strategies to the tobacco companies in order to undermine public health interventions^{40,41} and how sugar companies have convinced policymakers that actions to reduce sugar consumption would harm economies (an argument that is entirely familiar to those working in tobacco control).¹⁰

While many documents call for private sector involvement in NCD prevention, others speak quite strongly against it, pointing out, for example, that industry "should have no role in the

formation of national or international policy for non-communicable disease policy. Despite the common reliance on industry self-regulation and public–private partnerships to improve public health, there is no evidence to support their effectiveness or safety.”⁴⁰ In view of the present and predicted scale of non-communicable disease epidemics, the only evidence-based mechanisms that can prevent harm caused by unhealthy commodity industries are public regulation and market intervention.⁴ Tobacco control advocates may be able to help strengthen this position with the other risk factors because of their successes in reducing industry’s involvement in policymaking.

Strong leadership, as in the tobacco control movement, is essential to resist attempts by powerful organisations and corporations with vested interests to undermine the development and implementation of effective policies and laws.³⁴ Regional and international cooperation is imperative to ensure that individual countries do not have to take on the powerful food, sugared beverages, and alcohol industry separately. The recent litigations by the tobacco industry on countries with limited resources are a good example on how important and vital a coordinated response by the public health communities across the globe to these challenges can be.

Serious considerations about whether to involve the private sector should undergo “rigorous, timely, and independent assessment” to show whether they are contributing to reducing NCDs.⁴⁰

Table 3. Private sector involvement in NCD prevention

Potential area for industry involvement	Comments
Product reformulation	Controversial for tobacco; probably not relevant for alcohol; important for food products and potentially sugar-sweetened beverages.
Advertising/promotion/sponsorship (APS)	Overall, industry involvement is not productive in addressing APS; exceptions may be needed for promoting healthier alternative formulations
Public education	Best left to government without industry involvement; industry programs likely to mislead and downplay risks.
Taxation	Best left to government without industry involvement; industry is likely to strongly resist any attempts to impose taxation to reduce attractiveness/affordability of unhealthy products.
Other	To be determined on case-by-case basis but in general, industry involvement in policy decisions will weaken those decisions.

Opportunity to strengthen national policy and programs

As the domain of public health expands as illustrated with both demand and supply side measures under tobacco control, some of these actions do not lie directly under the ambit of a Ministry of Health and require coordination with other ministries and departments as outlined above. These ministries not directly involved in public health may not have all the information and capacity to undertake policy development for tobacco control and other modifiable risk factors associated with NCDs. This is also made more complex with inadequate funding available for preventive health in most LMICs.¹⁸ An integrated national policy on NCDs led by the

ministries of health would help overcome this obstacle and offer broader scope to address behavioural risk factors and their determinants. Integration also avoids the duplication which would occur with separate tobacco control programs within policies or programmes for cancer, cardiovascular disease, and other NCDs.⁴³

Coordination of strategies, plans, and activities is needed in order to work effectively and efficiently towards mutual goals. A system of accountability is also important - annual global progress reports, for example. In order to be successful, a response to NCDs will require strong national laws and policies that create a supportive and enabling environment for positive behaviour change. Some specific areas are:

- Introducing taxation measures
- Regulation of production and sales
- Comprehensive bans on tobacco advertising, promotions and sponsorship, restricting marketing, labelling, advertising and sponsorship of alcohol, and, to some degree, of highly processed foods and beverages, for example, those that target children.
- Removing subsidies that contribute to low prices of highly processed foods and tobacco. Creating subsidies that lead to local production and consumption of healthy food.
- Application of human rights law to justify government interventions designed to reduce NCDs, particularly amongst marginalised and vulnerable populations. [Paradoxically, human rights law has been used to both justify limits on government interventions for public health, as well as upholding government interventions to reduce tobacco use.^{44,45}]
- Assessment of how trade and investment agreements enable or prevent countries from enforcing laws and policies relating to the sale of tobacco, food, and alcohol.⁵

Allocation of resources

Although much public health literature^{47,48} argues that integration will be more efficient than tackling each risk factor independently, how resources will be equitably allocated remains to be determined. Even with an equitable resource allocation, spending needs to be priority-based and strategic. In tobacco control, governments have favoured funding low impact activities such as school-based education programmes rolling out soft messages, or opening cessation clinics which over the years have not proven to be the most effective strategies. They are likely to want to take this approach for NCD control as well.

It is vitally important to prioritize the interventions based on their effectiveness to reduce the harms caused. For a decade we have tobacco control strategies which work as illustrated under WHO-FCTC and yet tobacco control has been underfunded⁶⁵. Worse, tobacco control is considered a threat to economic health in some nations, as the tobacco industry is perceived to contribute substantially to the tax base, and job creation. Intensive lobbying from the tobacco industry caused many governments to avoid funding tobacco control. There is a possibility that an integrated approach may lead to BIG industry aligning their approach to argue possible economic losses when faced with policies similar to tobacco control and interfere with the allocation of resources for effective policy development and implementation efforts.

Globally, Development Assistance to Control Tobacco (DACT) “grew from US\$1.2 million in 2000 to US\$44.2 million in 2009, primarily due to private philanthropy. Average annual funding (2000-2009) amounted to about US\$0.003 per adult (US \$0.0003 per adult in 2000 and US\$0.011 per adult in 2009). DACT has been supplemented by domestic public funding that reached US\$0.009 per adult in 2008.”⁴⁶ Most funding has come from Bloomberg Philanthropies and the Gates Foundation over the last decade. Extremely low levels of funding prior to this had left tobacco control in the poorer countries “underfunded and vulnerable.”⁴⁶. Proper planning will need to be undertaken to improve efficiencies before an integration of work can happen for all modifiable risk factors of NCDs.

Sustainable funding

A practical solution to tobacco control funding limitations and resources available for other modifiable risk factors for NCDs is to earmark a portion of tobacco tax revenues for this work. Down the line, a similar approach could be taken for other NCD risk factors. Where there is a direct link between a product and NCDs, as with alcohol⁴⁹, sugar^{50,51}, heavily-processed foods⁵², cars⁵³, and televisions^{54,55}, then surtaxes on the products, as well as congestion charges on car use in cities⁵⁶, could be used to fund NCD prevention programmes.

Tobacco surcharges have been used to fund health programs at VicHealth in Australia, the Thai Health Promotion Foundation (partly funded by surtax on alcohol as well), health promotion fund in Korea and the Jamaica National Health Fund. And in Nepal, a portion of cigarette tax revenues is used to fund a cancer hospital.

The funding from tobacco taxes is significant; in South Korea alone, the fund provides an annual budget of more than US\$30 million for tobacco control, thanks to progressively increasing cigarette taxes.³⁴ Integration could mean that health promotion funding would be collected from a surtaxes on tobacco, alcohol, sugar-sweetened beverages and fast food. This would widen both the base of programmes to be funded, and the funding base itself. For more details on health promotion funding models please refer to the International Union against Tuberculosis and Lung Disease discussion paper, *Sustainable Funding Models for Tobacco Control*.*

Global tobacco tax revenues far outstrip expenditure on tobacco control. More than US\$167 billion was collected in tobacco tax worldwide in 2008 - less than 1% of this amount was spent on tobacco control. In addition to taxes on tobacco products, tobacco companies paid more than \$10 billion in corporate income tax in 2008. In low-income countries, just \$1 in every \$9,100 received in tobacco tax was spent on tobacco control. The ratio was 1:4,200 in middle-income countries and 1:340 in high-income countries in the year 2008. If tobacco control was a global health priority, it would be easier to find funding for it within existing government mechanisms.⁴⁶

* <http://www.theunion.org/what-we-do/publications/technical/english/Sustainable-Funding-Models-for-Tobacco-Control-a-Discussion-Paper.pdf>

Key interventions to reduce the prevalence of NCDs are relatively inexpensive. Yet the economic costs of NCDs could exceed US\$7 trillion in LMICs alone between 2011 and 2025. Basic interventions to curb this epidemic would cost as little as \$1.00–2.00 per head. This funding could easily be found from donors and additional taxes on tobacco and other harmful products.³⁴ In 2007 the annual cost to implement three priority interventions tobacco control, salt reduction, and treatment of cardiovascular risk in 23 high-burden countries was estimated to be about \$6 billion, for example. A new global fund is not needed to implement these priority interventions. Countries depending on aid should ensure they include NCDs in their priority list of requests for assistance, in their national health and development plans, and in their UN Development Assistance Frameworks so that funds are earmarked for this work.⁵⁷

Human resources

Given the under-resourcing of health programmes, there is concern that integrating tobacco control efforts with other modifiable risk factors associated with NCDs could increase the burden on both the human and financial resources available. This could reduce the effectiveness of already under-resourced tobacco control programmes and stretch the availability of human resource. Any effort to integrate tobacco control with NCD work cannot be a simple transition of adding the increased work rather a systematic approach with clear plans to make the transition.

Experience suggests that staff of NCD departments within Ministries of Health often have oversight of other areas of public health. Development and implementation of a comprehensive plan for NCDs must take into account continuity and availability of resources for work proven to have the greatest impact. Governments could start with a small set of priority interventions, and work to implement those with partners in civil society. As the governments increase the availability of human and financial resources, countries can work towards implementation of a broader range of interventions. Since many countries have similar challenges, sharing experiences with those in the same region, is important.³⁴ As skills increase and familiarity with integrated work-plans increase, coordination would reduce the burden on human resources and avoid duplication of work. Civil society organisations play a vital role - supporting governments to fulfil their NCD commitments by offering their assistance and technical expertise.

Tobacco control advocates have acted as a resource for governments and more so since the start of the FCTC negotiating and implementation process. They can therefore continue to support the application of lessons learned from tobacco control to other NCD risk factors.

Multisectoral coordination in the tobacco control and NCD context would entail inter-ministerial executive committees, task forces, action teams and joint strategies. Shared, interdepartmental goals and integrated budgets are important for effective utilization of resources.³⁴ This contrasts with an approach that focuses on individual diseases, organs, or risk factors.⁵⁸ Any long-term, sustainable approach requires such integration, as focus on any single disease eventually wanes, as it has done with AIDS.

According to E. Mills & N. Ford (2012):

“High-level political commitment to a particular group of diseases may be relatively straightforward to secure, but the challenge for chronic diseases such as HIV/AIDS and NCDs is to ensure that this political commitment translates into sustainable programmes that will serve patients for longer than the tenure of the politicians who signed the declaration.”⁵⁹

DISCUSSION

Public health professionals, researchers and literature cite various reasons for an integrated approach to NCDs rather than separate policies to address individual diseases and their associated modifiable risk factors. Some of these reasons are:

- Integration facilitates the efficient use of resources and reduces duplication of efforts
- An integrated policy can reduce the demand and burden on the public health workforce responsible for policy development and implementation, thus increasing the effectiveness of existing programmes.
- An integrated policy could attract resources more successfully.
- Integration can facilitate coherent, high-level, inter and multisectoral action, which is needed not only for tobacco control but for all the major NCD risk factors.⁶⁰

In our opinion, a thorough assessment of the various programmes designed to tackle NCDs need to be undertaken in order to establish relative maturity. Tobacco control is the only NCD intervention thus far to be backed by an international health treaty. Work would need to be undertaken to list, assess and prioritize the ‘Best Buys’ interventions as described in Appendix 3 of World Health Organization, "Global Action Plan for the Prevention and Control of NCDs", Appendix 3.¹

The first major global commitment to addressing NCDs was the WHO FCTC. It set an important precedent as the first global public health treaty. Parties to the treaty are required to build collaborative working relationships between health and other key sectors, including finance and trade. Yet many countries have still not implemented WHO FCTC fully. In face of limited resources the most cost effective demand-side measures were prioritised. Given that the inclination in the majority of governments can be towards adopting a non-controversial, education and awareness based ‘soft approach’ for the control of NCDs - similar to those that were undertaken in the years before WHO FCTC ratification - a lesson learnt from decades of tobacco control is that these approaches have a limited utility. The focus has to be on policies involving finance and trade that have a higher impact. This work can prove extremely challenging, yet is vital.³³

To raise the profile of NCDs, Ministries of Health must work with other ministries and departments to establish a balance between preventive and curative care.³ Shifting the focus from cure to prevention will require an extensive and coordinated effort. Shifting the balance from predominantly vertical approaches that have existed for many years to an integrated

approach will be challenging, as there are understandable concerns about the danger of diluting attention to individual issues. Again the need for a well planned out strategy and implementation plan would be vital to undertake such work.

The various plans, conferences, strategies, and commitments that make up the global response to NCDs have some important points in common [see Table 1 above]. They all advocate for a multisectoral approach. They all recommend a high-level approach to addressing NCDs. They all indicate the growing momentum towards tackling NCDs. The utility for integration can easily be seen but threats certainly exist if the public health community does not strategically design this process.

The four major risk factors for NCDs have many influencing factors in common - the role and character of the industries involved, perceptions around individuals' rights and choices, and influence over stakeholders including government ministries. Similarities between the industries behind products that increase NCDs are apparent - they are weary of tax increases, limits to the way they advertise, health warnings on their products, restrictions on sales, and product regulation.⁶⁴ It is therefore very important to assess how this integration of work for tobacco control into other NCD risk factors would alter the nature of the partnerships with other sectors and also the way public health professionals interact with the industries linked with NCD risk factors.

Tobacco control has the benefit of an internationally ratified treaty which takes precedence over these industry concerns. The example cited earlier in this document Mars' opposition to 'plain packaging for tobacco products' is not an isolated incident. It illustrates industry surveillance of government and civil society moves to push for tighter controls on products that harm health. On the other hand the tobacco industry may already be asking governments to treat it in the same way it treats food and alcohol industries, thereby seeking a place at the negotiating table for regulatory measures. Tobacco control is protected by the WHO FCTC articles and associated guidelines, specifically Article 5.3. But ministries of trade and finance in some LMICs continue to engage in dialogue with the industry due to the nature of their primary scope and work.

So questions around how to integrate work on all NCD risk factors is more complex than simply how to efficiently use resources. Considerations such as those mentioned above need to be included in any strategic plan developed for integration.

From a public health perspective, it is possible that integration will create competition for resources between programmes designed to reduce the incidence of NCDs. A positive scenario could be that integration would enable piggybacking between programmes, thus enabling measures to reduce one risk factor to reach sectors and populations that it previously found inaccessible. The benefits of integration are clear. But the public health community must carefully draw up plans detailing how integration will work practically, taking both benefits and dangers into account. A comprehensive case can be made for adopting an integrated approach and tobacco control can offer solutions to challenges for effective control faced by other risk factors. How best to integrate work on all NCD risk factors still remains unclear at this point. TC can offer solutions on measures, but a broader discussion needs to happen on how to create an

integrated framework for tackling NCDs. Tobacco control offers an exemplar for other risk factors, and this could be used as a foundation for such a framework. A rigorous planning process is required. Our research did not find evidence of any institution having done this to date in detail.* Preventive health and public health units have various titles within Ministries of Health, including 'NCD Units'. These units are frequently under-resourced. In contrast, tobacco control units have developed to involve the more resourceful ministries. They are involved in debates including taxation, illicit trade, trade protocols and other topics not traditionally under the ambit of health. This leads to the intersectoral action so vital for the most powerful tobacco control policies. As some determinants of NCDs are also outside the health sector, intersectoral action is vital here too.²² This intersectoral action can decrease complexity of the multi stakeholder dimension of the debate on integration given the number of sectors that are relevant to controlling NCD risk factors.^{3,18}

Simply restructuring national units set up for public health programmes such as tobacco control, or changing organograms without a well-resourced operational plan will not lead to effective integration of work on NCDs. The capacity of civil society and governments will need to be built to achieve this effectively. Tobacco control organisations working at both national and international level such as The Union, based on their experience of tackling similar issues in other public health programmes - are well placed to take on this work - developing operational plans in consultation with local and international partners to oversee integration, and to discern the most feasible approach for specific countries and regions.

Tobacco control has achieved significant successes in terms of policy and legislation change similar to those that will be needed to reduce NCDs. While the WHO FCTC does not address risk factors beyond tobacco use, the approach it takes in terms of addressing fiscal policy (taxation), promotion/marketing, restrictions on use (smokefree areas), packaging and labelling, are directly applicable to the other key risk factors -- alcohol, poor diet and, to some degree, physical inactivity. Using the tobacco control model as a foundation to strengthen national public health policies and programmes is too important an opportunity to be missed. Examples of policies that are likely drawn from the tobacco control model not only indicate current successes but also suggest positive developments for the future. The Government of Tonga, for example, has increased import duties on tobacco, lard and fizzy drinks, and decreased import duties on fresh fish; Nauru and French Polynesia have raised taxes on sugary beverages; Colombia is addressing physical activity through the environment by encouraging cycling.²⁰

An integrated approach drawn from the tobacco control model could offer a possible solution to the limited availability of resources, offering a template for sustainable preventive health. Tobacco taxes have been used to finance health programmes and have been instrumental in the creation of Health Promotion Foundations (HPFs). HPFs evolved as a solution for long-term tobacco control funding. Indeed they have been described as an 'invention designed to solve a health problem which was also a political problem'.⁶¹ A health promotion foundation can be

* Last performed 17 February 2015 using PubMed, Google Scholar, plus the wider web.

defined as 'an autonomous or semi-autonomous statutory body which has, as its major purpose, the promotion of health'.⁶²

Tobacco control also offers a model for surveillance of monitoring of NCD levels and the impact of programmes to reduce incidence of these diseases. Its Global Adult Tobacco Surveillance (GATS) is a practical tool that could be replicated to integrate NCD surveillance into the national health information system, as well as strengthening country accountability processes. efforts.⁷

While integration is needed, it may be wise to start gradually in LMICs. A broad policy dialogue needs to happen first, involving governments, civil society and public health experts to ensure the momentum of work for the individual modifiable NCDs risk factors continues.

RECOMMENDATIONS

Various agencies and individuals have contributed towards the formulation of recommendations for future NCD programming. Those making recommendations include people with many years' experience in tobacco control. The key element in common across the recommendations is the importance of an integrated, rather than vertical, approach to NCDs (Annex 1).

The recommendations in this paper take into consideration the compelling need to take urgent action to address the growing burden of NCDs and the lack of resources allocated for this work and outline the role different organisations and stakeholders need to play to move towards an effective, nationally focused, targeted and sustainable integration of programmes to address modifiable risk factors of NCDs.

In order to reduce the burden of disease caused by the modifiable risk factors associated with NCDs, it is important that:

- Governments commit to establishing dedicated NCD units to coordinate whole-of-government action led by Ministry of Health and with the support of Ministry of Finance and treasury.
- Governments and civil society collaborate to strengthen NCD efforts by applying the lessons from tobacco control to other NCD risk factors including: the necessity of a policy-based approach; the evidence for an integrated approach to NCDs; and the need for multi-sectoral action.
- Governments give priority to creating a sustainable source of funding to address tobacco control and other NCDs by enabling a fully functioning infrastructure to build capacity to implement effective interventions. This will involve securing adequate and sustainable funding from increases in tobacco taxes (with potential to include taxes on other unhealthy products) as well as establishing an appropriate administrative model.
- The Union develop an action plan to assist governments to take on integration of its programmes related to prevention of NCDs

- The Union offer to assist countries with content discussion for developing national NCD targets' plans, monitoring and reporting processes; and funding opportunities based on recommendations provided by WHO and the on-going work of the GCM/NCD Working Group on financing and non-financial means of implementation for NCDs.
- Civil society, including NGOs and academia need to assume an important role in promoting an integrated NCD agenda and advocating to keep NCDs and the need for sustainable health financing on the agenda of governments.
- Governments, civil society and global partners develop policies for engagement with stakeholders in health, sustainable development, industry and other actors to strengthen health outcomes at same time as preventing tobacco industry interference and other “unhealthy” influences on public health policies.
- The Union based on its long history of working with governments to reduce global epidemics, including tuberculosis, HIV, AIDs and tobacco control, provide ongoing technical advice on NCDs with a focus on how to implement sustainable funding mechanisms for financing health infrastructure and operational programs for implementation and evaluation of national health policies.

Recommendations for the role civil society and governments need to undertake

For Ministries of Health:

- Establishment of a dedicated NCD unit housed within the Ministry of Health (MoH) backed by a national action plan and allocation of resources for its implementation.
 - The NCD unit, while housed within the MoH, should serve as a coordinating body for a whole-of-government approach with the understanding that most NCD policy interventions will come under the jurisdiction of other ministries. The MoH should have the lead and a strong representation on policies which impact public health developed and adopted by other ministries
 - Development of detailed national action plans to decrease the risk factors associated with NCDs including maintaining strong focus on TC, creating new resources through raising tobacco taxes and clear policy guidelines for engagement with the private sector
- For countries that have not yet ratified the WHO FCTC or have made little progress in policy development for tobacco control and face a high prevalence of smoking, keep the tobacco control department separate as a focal point for FCTC compliant policy development until more progress is made (ensuring close collaboration between tobacco control and the NCD departments)
- Meaningful involvement of national stakeholders, including civil society, in all public health policy debate.

For The Union and other civil society organisations:

- To undertake activities to increase the capacity of national stakeholders to develop operational plans for integration while continuing to work in close partnership with other stakeholders to ensure effective, multisectoral collaboration occurs on NCDs.
- To cement The Union's leadership role in bringing content discussion to national NCD prevention efforts with a focus on the development, passage, and implementation of specific policy measures.
- Continued contribution to the existing knowledge base on effective approaches to achieve policy change for NCD control.
- Civil society, including non-governmental organisations (NGOs) and universities need to assume an important role in promoting the integrated NCD agenda and keep this on the political agenda of the governments.
- Additionally, The Union should consider, based on its experience with the Global Fund to Fight AIDS, Tuberculosis and Malaria, advocating for the creation of an international funding scheme to achieve NCD goals by 2025.

CONCLUSION

The literature on NCDs offers a near universal recommendation for an integrated approach. The experience of tobacco control provides many useful lessons for the other NCD risk factors in terms of how to deal with industry, the necessity of a policy-based approach, the need for multisectoral action and how to engage a variety of stakeholders.

The literature is less explicit about the details of integration. Given the maturity of tobacco control, the integrated approach will benefit greatly from involving and giving a lead to tobacco control, such that other NCD risk factors use the same policy-based approach to reduce disease prevalence. Tobacco control also offers a template for low-cost high-impact interventions, as well as a solution for sustainable funding, as in the mechanism, earmarking tobacco tax revenues for health promotion.

To maximise the advantages of integration, the initial focus of all stakeholders should be on how to achieve integration using the lessons learnt in tobacco control. This foundation will provide a sound basis for developing and implementing comprehensive NCD programmes.

The eagerness to involve Big Industry in NCD discussions, (as mentioned in many NCD-related strategy documents), deserves special reflection given the tobacco control experience. Any decision to involve industry in public health policymaking should not be taken lightly. There is a strong case for a precautionary approach which assumes that Big Industry's priority is profit well before public health. A broad alliance of health, environmental, and human rights groups could unite to resist pressure from industries that are working to dilute the strong policies needed to effectively reduce the NCD epidemic.⁶⁰

APPENDICES

Appendix 1. Overview of recommendations of different agencies

Agency	Response
WHO	Integration; develop national-level NCD action plans; special attention to surveillance, prevention, and health care; analysis of social, economic, behavioural and political determinants in order to provide guidance for policy; legislative and financial measures.
UNDP	Integration; need for attention to root causes; leadership vital
The Lancet NCD Action Group and the NCD Alliance	International cooperation; raise the priority of NCDs on global agendas; increase funding for NCDs; promote synergies between programmes for NCDs and other global health priorities.
Various agencies/individuals	Advocacy; formation of effective partnerships; political leadership; include NCDs in any health aspect of the post-2015 development agenda.
Samb et al	Avoid fragmentation of the response (by single condition or subgroup); coordinate advocacy efforts to allow for heightened political commitment and action on NCDs as a unified cause; collate NCD and other health data into one national information system; get more NCD funding to flow through comprehensive national health plans; broaden ownership of responses to NCDs and of health-systems strengthening; implement measures to improve collaboration and joint planning.
Various authors	Be wary of industry involvement; do not automatically involve the corporate sector (see Moodie et al below for specifics).
Mendis & Fuster	Establish a high-level, national, multisectoral advisory board to coordinate development and enactment of national NCD policy; involve high-level staff members of various ministries; establish a multidisciplinary national NCD taskforce & working groups.
Wipfli and Samet	Tobacco control should share its strategies, experience and advocacy to support global NCD control; ensure that chronic diseases and tobacco use are addressed together; while continuing to maintain resources and focus on tobacco control, ensure that resources support integrated programs; channel energy from tobacco control towards spearheading the emerging NCD control movement.
Moodie et al	Allow no role for unhealthy commodity industries in the formation of national or international policy for NCDs; restrict interactions with tobacco industry consistent with FCTC recommendations; deny funding and other support for research, education, and programmes from the tobacco, alcohol, and ultra-processed food and drinks industries or their affiliates and associates; independently and objectively monitor all approaches; prioritise and accelerate funding of policy development research into modes of regulation and market interventions; develop a new scientific discipline that investigates industrial diseases and the transnational corporations that drive them

Appendix 2. Some relevant sectors to an integrated approach to NCDs

Sector	Tobacco control	Other risk factors
Health	Cross-cutting	Cross-cutting
Finance	Taxation to keep prices of tobacco products rising above inflation	Taxation policy to encourage healthy eating and active transport and to discourage unhealthy food and inactive travel
Law/justice/security	Legislation regarding marketing and labelling of tobacco products; smoke-free areas; attempts to address smuggling	Legislation regarding marketing, labelling, and sales of food, beverages, and alcohol; addressing illegal alcohol
Trade	International agreements that affect ability of government to implement policies on tobacco products	International agreements that affect ability of government to implement policies on alcohol, food, and beverages
Customs/revenue	Tobacco taxation; potentially health promotion fund from surtax on tobacco	Taxation on alcohol, unhealthy food/beverages; surtax could go towards a health promotion fund
Employment/labour	Employment issues regarding decline in tobacco use	Employment issues regarding decline in consumption of unhealthy products; potential increases in employment (bike repair, farmers' markets, ...)
Energy	Energy use from transport is a main contributor to climate change and contributes to the obesity epidemic	Increased active travel would reduce energy use in transport
Environment	Negative effect on the environment of tobacco cultivation	Growing more chemical-free produce; reductions in pollution due to decreased passive and increased active travel
Industry	Promotion of local industry vs. transnational tobacco companies	Promotion of local industries to produce healthy foods, and of bicycle industry rather than cars/car imports
Social and economic development; poverty alleviation/social welfare	Potential to increase employment in other sectors to compensate for any loss in the tobacco sector	Potential for increased jobs and other social gains from active transport and more local production/availability of fresh produce
Agriculture	Subsidies/assistance to grow food crops vs. tobacco	Shifting from subsidies to corn (HFCS) to policies to encourage local production of fresh fruits and vegetables
Education	Integration of tobacco control into the curriculum (with strong evaluation component)	School-based education as well as policies on sale/use of healthy vs. unhealthy foods in educational settings
Urban planning	Smoke-free public spaces	Proximity of destinations facilitates active travel; access to healthy foods and to recreational areas; maintenance and preservation of public spaces (for outdoor physical activity)
Housing	Smoke-free housing policies	Policies to ensure outdoor recreational opportunities and access to healthy foods near housing areas
Transport	Smoke-free public transport; avoid advertising unhealthy foods/drinks/alcohol and cars on public transit	Policies to encourage walking/cycling and discourage car use facilitate active travel
Sports	Sporting events that are free of smoking and of tobacco promotion	Physical activity in schools/community settings; sporting events that do not market unhealthy foods/beverages

Food	Encouragement to spend money on food not tobacco	Encouragement of urban gardening, initiatives to increase availability and lower price of healthy foods
Youth affairs	Programs (not industry-supported) to encourage youth to avoid tobacco/resist the tobacco industry	Programs to encourage active travel e.g. Active and Safe Routes to School; keeping junk food/soft drinks out of educational institutions
Communications	Bans on all forms of advertising and promotion of tobacco products; public education on harms of tobacco	Bans/limits on promotion of unhealthy foods and of cars; public education on healthy lifestyles

Appendix 3. Potential UN agencies to involve in NCD prevention and control, and their potential roles (selected examples from WHO Global Action Plan)

Agency	Potential role
UNDP	<ul style="list-style-type: none"> ▪ Support non-health government departments in their efforts to engage in a multisectoral whole-of-government approach to non-communicable diseases ▪ Support ministries of planning in integrating non-communicable diseases in the development agenda of each Member State ▪ Support ministries of planning in integrating non-communicable diseases explicitly into poverty-reduction strategies ▪ Support national AIDS commissions in integrating interventions to address the harmful use of alcohol into existing national HIV programmes
WTO	<ul style="list-style-type: none"> ▪ Operating within the scope of its mandate, support ministries of trade in coordination with other competent government departments (especially those concerned with public health), to address the inter face between trade policies and public health issues in the area of non-communicable diseases
WFP	<ul style="list-style-type: none"> ▪ Prevent nutrition-related non-communicable diseases, including in crisis situations
UNICEF	<ul style="list-style-type: none"> ▪ Strengthen the capacities of health ministries to reduce risk factors for non-communicable diseases among children and adolescents ▪ Strengthen the capacities of health ministries to tackle malnutrition and childhood obesity
UN Women	<ul style="list-style-type: none"> ▪ Support ministries of women or social affairs in promoting gender-based approaches for the prevention and control of non-communicable diseases
UNFPA	<ul style="list-style-type: none"> ▪ Support health ministries in integrating non-communicable diseases into existing reproductive health programmes, with a particular focus on (1) cervical cancer and (2) promoting healthy lifestyles among adolescents
UNESCO	<ul style="list-style-type: none"> ▪ Support the education sector in considering schools as settings to promote interventions to reduce the main shared modifiable risk factors for non-communicable diseases ▪ Support the creation of programmes related to advocacy and community mobilization for the prevention and control of non-communicable diseases using the media and world information networks <p>Improve literacy among journalists to enable informed reporting on issues impacting the prevention and control of non-communicable diseases</p>

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