Introduction

In a historic United Nations' (UNs) Summit on September 25, 2015, the world leaders adopted the 17 Sustainable Development Goals (SDGs) to be achieved by 2030. Three interconnected, core elements, namely economic growth, social inclusion, and environmental protection are identified for sustainable and inclusive growth of all.\textsuperscript{[1,2]} In the past few decades, noncommunicable diseases (NCDs) have emerged as a major public health problem in the world due to demographic, epidemiological, and socioeconomic transition.\textsuperscript{[3,4]}

The SDGs – the global goals first time included NCDs in the health goal number 3 i.e., “ensure healthy lives and promote well-being for all at all ages.”\textsuperscript{[5,6]} Of this, goal 3.4 targeted to “reduce by one-third premature mortality from NCDs through prevention and treatment and promote mental health and well-being.”\textsuperscript{[7]} As NCDs top among the all-cause mortality, there is a need to work on the global health agenda, i.e., SDGs for NCDs which are acceptable to both developing and developed countries.\textsuperscript{[6]}

World NCD Federation (WNF) is one of the professional associations which is working on this global health agenda.

ABSTRACT

The global epidemic of noncommunicable diseases (NCDs) was recognized by the United Nations and is addressed by the Sustainable Development Goals (SDGs) to be achieved by 2030. This review article describes the proceedings of the plenary session “SDGs and NCDs: Roadmap till 2030” of the first “World NCD Congress 2017” held at Chandigarh, India. The plenary session emphasized the need for political commitment to take up NCD agenda at the national level to prevent and reduce the premature NCD deaths. Establishing the national action plan and monitoring framework for prevention and control of NCDs are the major initial initiatives to implement the best buy NCD interventions. Primary prevention of four common and shared risk factors and health system strengthening are the important interventions to achieve the SDG goal 3.4. The implementation strategies at subnational level and engagement of sectors other than health on prevention and control of NCDs can be reviewed and further researched for effective implementation of the identified interventions.

Keywords: Chronic disease, noncommunicable disease, premature death, Sustainable Development Goal, World Noncommunicable Disease Congress

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WNF in collaboration with Postgraduate Institute of Medical Education and Research, Chandigarh, a national level institute of medical excellence in India organized “The First World NCD Congress 2017 (WNCD 2017)” at Chandigarh, India. The theme of the Congress “Preventing NCDs: Realizing SDGs” is contemporary and relevant keeping in view SDGs to be achieved by 2030. “SDGs and NCDs: Roadmap till 2030” is one of the plenary sessions of the Congress November 4, 2017, and this article discusses about the proceedings of this session. The session was organized to discuss about the (a) current situation and global initiatives on the prevention and control of NCDs; (b) prioritized NCD-related SDG targets and indicators; (c) roadmap plan of action on the prevention and control of NCDs to achieve the SDGs, and (d) different approaches to be adopted by low- and middle-income countries on prevention and control of NCDs.[7] The session was taken by eminent national and international experts from World Health Organization (WHO), UNs Development Programme, and Ministry of Health and Family Welfare, Government of India.[7]

Proceedings

Current situation of noncommunicable diseases

Nearly 40 million people die each year due to NCDs equivalent to 70% of all deaths globally. Of which, 80% (32 million) of deaths are due to four major NCDs, namely, cardiovascular diseases (17.7 million), cancer (8.8 million), chronic respiratory diseases (3.9 million), and diabetes mellitus (1.6 million). Tobacco use, harmful use of alcohol, physical inactivity, and unhealthy diet are the four common modifiable behavioral risk factors of NCDs causing these diseases.[9,14]

Nearly 15 million NCD deaths (38%, 15/40 million) are premature, i.e., in the ages of 30 and 69 years which are preventable and avoidable. Of these, 80% of premature NCD deaths are due to above-mentioned four NCDs. Similarly, the premature NCD deaths are more common (≥80%) in low- and middle-income countries which still have the unfinished communicable disease agenda.[5,6] Although there was a 17% reduction in premature NCD deaths in 2015 compared to 2000 globally, the reduction is insufficient to achieve the SDG 3.4. It was estimated that around 55 million deaths will be attributed to NCDs in 2030 if the current trend (business as usual) continues.[8]

Global initiatives on prevention and control of noncommunicable diseases

In the history, the general assembly of UNs was convened to discuss in 2011 on a health issue after AIDS and adopted “Political Declaration of the high-level Meeting of the general assembly on the prevention and control of Non-communicable Diseases” (hereafter known as “Political Declaration 2011”) to address this global epidemic of NCDs.[9] This was based on the call given through “Moscow Declaration” emerged from “First Global Ministerial Conference on Healthy Lifestyles and Non-communicable Disease Control” conducted at Moscow, Russian Federation to accelerate the reduction of NCD burden and mortality.[10]

The Political Declaration 2011 recognized the global epidemic of NCDs and asked the member states to respond the same by “a whole-of-government and a whole-of-society effort.”[16] It committed to reduce the risk factors and to create health-promoting environments through effective implementation of global strategies such as “WHO Framework Convention on Tobacco Control (FCTC),” “Global Strategy on Diet, Physical Activity and Health,” “Global Strategy to Reduce the Harmful Use of Alcohol,” “WHO set of recommendations on the Marketing of Foods and Non-alcoholic Beverages to Children,” and “International Code of Marketing of Breast-milk Substitutes.”[11-15]

Similarly, the Political Declaration 2011 asked the member states to strengthen the national policies and health systems, international cooperation including collaborative partnerships, research, and development and to establish a quality surveillance and monitoring system for prevention and management of NCDs.

Global Action Plan for the prevention and control of noncommunicable diseases 2013–2020

WHO developed the “Global Action Plan for the prevention and control of NCDs 2013–2020” to operationalize the commitments of Political Declaration 2011 for world free of avoidable NCD burden. The global action plan monitoring framework identified nine voluntary global targets and 25 indicators for monitoring the achievement of targets in 2015 and 2020. The targets and indicators were selected based on the effectiveness, cost-effectiveness, affordability, implementation capacity, feasibility of interventions/policy options, and impact of the same on improving health equity.[8] The interventions/policy options to achieve the voluntary global targets are classified as “best buy” interventions for prevention and control of NCDs and are updated time to time. Sixteen best buy interventions were selected from the total of 88 interventions (best buy, effective, and other interventions) focusing on the four common and shared risk factors for NCDs [Box 1].[16]
Box 1: Best buy interventions for prevention and control of noncommunicable diseases

| Intervention domain       | Number | Intervention                                                                 |
|---------------------------|--------|------------------------------------------------------------------------------|
| Tobacco use               | 1      | Increase excise taxes and prices on tobacco products                         |
|                           | 2      | Implement plain/standardized packaging and/or large graphic health warnings on all tobacco packages |
|                           | 3      | Enact and enforce comprehensive bans on tobacco advertising, promotion, and sponsorship |
|                           | 4      | Eliminate exposure to second-hand tobacco smoke in all indoor workplaces, public places, public transport |
|                           | 5      | Implement effective mass media campaigns that educate the public about the harms of smoking/tobacco use and second-hand smoke |
| Harmful use of alcohol    | 6      | Increase excise taxes on alcoholic beverages                                  |
|                           | 7      | Enact and enforce bans or comprehensive restrictions on exposure to alcohol advertising (across multiple types of media) |
|                           | 8      | Enact and enforce restrictions on the physical availability of retailored alcohol (through reduced hours of sale) |
| Unhealthy diet            | 9      | Reduce salt intake through the reformulation of food products to contain less salt and the setting of target levels for the amount of salt in foods and meals |
|                           | 10     | Reduce salt intake through the establishment of a supportive environment in public institutions such as hospitals, schools, workplaces, and nursing homes, to enable lower sodium options to be provided |
|                           | 11     | Reduce salt intake through a behavior change communication and mass media campaign |
|                           | 12     | Reduce salt intake through the implementation of front-of-pack labeling       |
| Physical inactivity       | 13     | Implement community-wide public education and awareness campaign for physical activity which includes a mass media campaign combined with other community-based education, motivational, and environmental programs aimed at supporting behavioral change of physical activity levels |
| Cardiovascular disease    | 14     | Drug therapy (including glycemic control for diabetes mellitus and control of hypertension using a total risk approach) and counseling to individuals who have had a heart attack or stroke and to persons with moderate (≥20%) and high risk (≥30%) of a fatal and nonfatal cardiovascular event in the next 10 years |
| and diabetes              |        |                                                                              |
| Cancer                    | 15     | Vaccination against human papillomavirus (2 doses) of 9-13-year-old girls    |
|                           | 16     | Prevention of cervical cancer by screening women aged 30-49 years, either through Visual inspection with acetic acid linked with timely treatment of precancerous lesions Pap smear (cervical cytology) every 3-5 years linked with timely treatment of precancerous lesions Human papillomavirus test every 5 years linked with timely treatment of precancerous lesions |

These voluntary global targets focused on four major NCDs (cardiovascular diseases, cancer, chronic respiratory diseases, and diabetes mellitus) and four common shared risk factors (tobacco use, harmful use of alcohol, physical inactivity, and unhealthy diet). The identified voluntary global targets are given in Box 2. Similarly, the targets included the availability and affordability of drugs for prevention and control of NCDs as part of health system strengthening. India is one of the South-East Asia Region (SEAR) countries developed and adopted the national action plan and monitoring framework in 2013 as part of the WHO-Government of India Biennial work plan. Apart from the nine voluntary global targets, India targeted to reduce the indoor air pollution by 25% and 50% in 2020 and 2025, respectively, as tenth target.

United Nations time-bound commitments on noncommunicable diseases

In 2014, the UN adopted the outcome document (hereafter known as 2014 UN outcome document) following the high-level meeting of the General Assembly on the comprehensive review and assessment of the progress achieved after political declaration 2011 in the prevention and control of NCDs. The 2014 UN outcome document identified four time-bound commitments which are assessed based on ten progress monitoring indicators to be achieved by 2015 and 2016. The indicators for first commitment were to set the national NCD targets, generation of reliable mortality data, and periodic (every 5 years) STEPS risk factor survey. Availability of integrated national NCD policy along with multisectoral strategy is the indicator to assess the progress of second commitment. The remaining two are to reduce the NCD risk factors exposure and to strengthen the health systems.

Other Sustainable Development Goals related to noncommunicable diseases

Apart from SDG 3.4, reducing the death and illness related to (air, water, and soil) pollution (target 3.9) and road traffic injuries (target 3.6), reducing the harmful use of alcohol (target 3.5) and hepatitis B incidence (target 3.3), strengthening the implementation of WHO FCTC (target 3.3), support the research and development of vaccines and medicines for NCDs (target 3.3B), provide access to affordable essential medicines and vaccines for NCDs (target 3.3B), and ultimately achieving the universal health coverage (target 3.8) are the other SDGs directly/indirectly related to NCDs.

Multisectoral action for prevention and control of noncommunicable diseases

Prevention and control of NCDs need strong involvement of sectors other than health, i.e., multisectoral action...
especially for implementation of best buy interventions in sectors such as agriculture, food processing, finance, excise, women and child development, youth affairs and sport, urban development and planning, environment, human resource development, road transport and highways, and others. Similarly, multisectoral action is also needed to reduce deaths due to disasters (target 1.5, 11.5, and 13.1), reduce violence against women, children, or general population (target 5.2 and 16.1), clean household energy (target 7.1) and to reduce ambient air pollution (target 11.6), and to have good quality data (target 17.18).[1,17]

### Progress beyond 2015

The member countries were assessed in 2017 using ten progress monitoring indicators [Box 3] for the next UN high level meeting scheduled in 2018 before upscale of “best buy” interventions in different countries.[18,19] Thailand was the top performer in SEAR as the country already rolled out universal health coverage successfully and

#### Box 2: Voluntary global targets under global action plan for the prevention and control of noncommunicable diseases 2013-2020

- A 25% reduction in risk of premature mortality from cardiovascular diseases, cancer, diabetes, or chronic respiratory diseases
- At least 10% reduction in the harmful use of alcohol
- A 10% reduction in prevalence of insufficient physical activity
- A 30% reduction in mean population intake of salt/sodium
- A 25% reduction in the prevalence of current tobacco use in persons aged 15+ years
- A 25% reduction in the prevalence of raised blood pressure
- Halt the rise in diabetes and obesity
- At least 50% of eligible people receive drug therapy and counseling (including glycemic control) to prevent heart attacks and strokes
- An 80% availability of the affordable basic technologies and essential medicines, including generics, required to treat major NCDs in both public and private facilities

#### Box 3: Time-bound commitments of 2014 United Nations outcome document on noncommunicable diseases and progress monitoring indicators

| Time-bound commitments                                                                 | Indicators                                                                                       |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| By 2015, consider setting national NCD targets for 2025                                 | Member State has set time-bound national targets and indicators based on WHO guidance            |
|                                                                                       | Member State has a functioning system for generating reliable cause-specific mortality data on a routine basis |
|                                                                                       | Member State has a STEPS survey or a comprehensive health examination survey every 5 years       |
| By 2015, consider developing national multisectoral policies and plans to achieve the national targets by 2025 | Member State has an operational multisectoral national strategy/action plan that integrates the major NCDs and their shared risk factors |
| By 2016, reduce risk factors for NCDs, building on guidance set out in the WHO global NCD action plan | Member State has implemented the following four demand-reduction measures of the WHO FCTC at the highest level of achievement |
|                                                                                       | Reduce affordability of tobacco products by increasing tobacco excise taxes                       |
|                                                                                       | Create by law completely smoke-free environments in all indoor workplaces, public places, and public transport |
|                                                                                       | Warn people of the dangers of tobacco and tobacco smoke through effective health warnings and mass media campaigns |
|                                                                                       | Ban all forms of tobacco advertising, promotion, and sponsorship                                   |
| By 2016, strengthen health systems to address NCDs through people-centered primary health care and universal health coverage, building on guidance set out in WHO global NCD action plan | Member State has implemented, as appropriate according to national circumstances, the following three measures to reduce the harmful use of alcohol as per the WHO global strategy to reduce the harmful use of alcohol |
|                                                                                       | Regulations over commercial and public availability of alcohol                                    |
|                                                                                       | Comprehensive restrictions or bans on alcohol advertising and promotions                          |
|                                                                                       | Pricing policies such as excise tax increases on alcoholic beverages                             |
|                                                                                       | Member State has implemented the following four measures to reduce unhealthy diets              |
|                                                                                       | Adopted national policies to reduce population salt/sodium consumption                          |
|                                                                                       | Adopted national policies that limit saturated fatty acids and virtually eliminate industrially produced trans fatty acids in the food supply |
|                                                                                       | WHO set of recommendations on marketing of foods and nonalcoholic beverages to children         |
|                                                                                       | Legislation/regulations fully implementing the international code of marketing of breast-milk substitutes |
|                                                                                       | Member State has implemented at least one recent national public awareness program on diet and/or physical activity |
|                                                                                       | Member State has evidence-based national guidelines/protocols/standards for the management of major NCDs through a primary care approach, recognized/approved by government, or competent authorities |
|                                                                                       | Member State has provision of drug therapy, including glycemic control, and counseling for eligible persons at high risk to prevent heart attacks and strokes, with emphasis on the primary care level |

NCDs - Noncommunicable diseases, WHO - World Health Organization, FCTC - Framework Convention on Tobacco Control
other best buy interventions to achieve the time-bound commitments. India yet to establish integrated national NCD policy, strong interventions to reduce the tobacco use and harmful use of alcohol, and increase the availability and accessibility of essential medicines and vaccines for NCDs.[19]

The WHO global conference on NCDs 2017 at Montevideo came up with the “Montevideo roadmap 2018–2030 on NCDs as a sustainable development priority” to guide the member countries to establish policy coherence of health sector with sectors beyond health. Along with multisectoral action, the Montevideo roadmap discusses about the reinvigoration of political action, enabling the health systems to respond more effectively to NCDs, improving the health-care financing and international cooperation, and involvement of nonstate actors on public health.[20]

Key challenges in achieving noncommunicable disease targets
The limited public expenditure on health is one of the key challenges in achieving the NCD targets. Most of the countries with a higher number of premature NCD deaths still have the unfinished communicable disease agenda which hampers the uptake of global action plan and NCD agenda at national level. Bringing health in all policies is another great challenge to achieve the NCD targets which needs national level integrated NCD policy and multisectoral action plan. The vested interest of tobacco, alcohol, and food industry should be tackled through regulatory measures to ensure timely achievement of NCD targets. Rapid urbanization and mechanization increase the sedentary lifestyle which should be tackled with creating enabling environment to increase the physical activity. As most of the population are unaware of their NCD and risk factor status, the accessibility, availability, and affordability of NCD services should be improved by implementing universal health coverage.[20]

Conclusion
The plenary session emphasized the need for political commitment to take up NCD agenda at the national level to prevent and reduce the premature NCD deaths. Establishing the national action plan and monitoring framework for prevention and control of NCDs are the major initial initiatives to further implement the best buy interventions for NCDs. Primary prevention from four common and shared risk factors and health system strengthening to address the NCDs are the important interventions to achieve the SDG goal 3.4. The implementation strategies at subnational level and engagement of sectors other than health on prevention and control of NCDs can be reviewed and further researched for effective implementation of the identified interventions.

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