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## IFMSA Policy Document Non-communicable diseases

**Proposed by Team of Officials**

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### Policy Statement

#### Introduction:

Noncommunicable diseases (NCDs), including cardiovascular diseases, cancer, diabetes, chronic respiratory diseases and mental health disorders, account for major morbidity and premature death. Collectively they are responsible for the major global burden of disease, especially in low- and middle-income countries (LMICs). This makes it crucial to develop effective, context specific interventions.

The impact of NCDs extends beyond ill-health with major economic consequences worldwide and the likelihood to impede poverty reduction initiatives in LMICs. The rise of NCDs has been largely driven by five risk factors: tobacco use, physical inactivity, harmful use of alcohol, unhealthy diets and air pollution. These risk factors are interrelated and rooted in social, political, economic, cultural, environmental and commercial factors that are often outside of individuals' control. Underfunding, lack of social mobilization and conflicts of interest with the private sector make NCDs a challenging global public health issue. NCDs' prevention, control and management is essential to achieve the sustainable development goals' (SDG) target of a one-third reduction in premature NCD deaths by 2030.

#### IFMSA position:

The International Federation of Medical Students' Associations (IFMSA) affirms the need for urgent global multi-sectoral action on awareness, surveillance, prevention, control and management of NCDs. As NCDs share common risk factors there is an opportunity for comprehensive, coordinated, preventive action to tackle them as a group. The IFMSA believes that the global youth have a powerful role to play in the prevention and control of NCDs'. Both as a vulnerable and powerful group, youth has the unique capacity to add value to solutions for NCDs and to help lead their implementation in the society.

#### Call to Action:

Therefore, the IFMSA calls on:

#### Governments to:

- Recognize NCDs as a major public health threat, and commit to surveillance, prevention, control and management of NCDs at all levels particularly in low- and middle- income countries;
- Take affirmative steps to strengthen and orient health systems towards a life-course approach that addresses the burden of NCDs and the underlying social determinants;
- Establish mechanisms ensuring multi and intersectoral coordination for NCDs awareness, prevention, care and rehabilitation;
- Prioritize activities focused on vulnerable and disadvantaged groups, including youth;
- Monitor progress and trends of NCDs and their risk factors;
- Adhere to the WHO Framework Convention for Tobacco Control (FCTC) and adopt the WHO's Global Strategy to Reduce the Hazardous and Harmful Use of Alcohol;



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- Regulate the marketing, advertising and sale of alcoholic beverages, tobacco products and unhealthy food products;
- Consider re-evaluating pricing and taxation policies including, but not limited to:
  - a. Implementing an effective tax on sugar-sweetened beverages, ideally based on sugar content, rather than volume;
  - b. Providing subsidies for fresh foods where economically feasible.
- Consider policies including but not limited to: banning or limiting the availability of unhealthy products in government-run institutions, such as public hospitals and schools;
- Consider the above mentioned policy options in accordance with the WHO Action Plan 2013-2020 on prevention and control of NCDs, especially the cost-effective and evidence-based policies that can be adapted to meet the diverse needs of countries.

Private sector companies to:

- Act in the interest of public health wherever and whenever possible;
- Ensure advertising of potentially unhealthy products conforms to regulations;
- Go forward with the labelling of all products that are harmful to health.

Healthcare professionals to:

- Adequately inform patients about the influence of risk factors and upstream determinants on the development and outcome of NCDs and offer different alternatives to reduce NCDs risk factors, such as smoking and alcohol cessation programs, dietetic counseling and physical activity.
- Actively engage with an interdisciplinary approach in evidence-based strategies to screen, treat and prevent NCDs;

Universities and other providers of medical education to:

- Incorporate NCDs and their risk factors comprehensively into the medical curriculum, promoting a holistic approach to their prevention and control;
- Involving different stakeholders including youth and medical students.

IFMSA National Member Organizations (NMOs) and medical students to:

- Promote healthy behavior among themselves and lead by example;
- Raise awareness, especially among peers, and advocate towards the reduction of NCDs;

Finally, all relevant stakeholders to:

- Ensure comprehensive consultation and collaboration across sectors, including civil society organizations;
- Actively campaign to promote the importance of a healthy lifestyle and life-course approach;
- Recognize the importance of meaningful youth participation in processes related to the prevention and control of NCDs and recognizing that young people will be living in a world informed by decisions made today.



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## Position Paper

### Background information:

Of 56.4 million global deaths in 2015, 39.5 million (71%) were due to noncommunicable diseases (NCDs). The five most common NCDs are cardiovascular diseases, cancers, diabetes, chronic lung diseases and mental health illness. The burden of these diseases is rising disproportionately among lower income countries. In 2015, over three quarters of NCD related deaths (31.5 million) occurred in low- and middle-income countries (LMIC), with about 46% of deaths in these countries occurring before the age of 70. (1)

The leading causes of NCD related deaths in 2015 were cardiovascular diseases (17.7 million deaths, or 45% of all NCD deaths), cancers (8.8 million, or 22% of all NCD deaths), and respiratory diseases, including asthma and chronic obstructive pulmonary disease (3.9 million). Diabetes caused another 1.6 million deaths (1). As for mental health, the global burden of mental illness accounts for 32.4% of years lived with disability (YLDs) and 13.0% of disability-adjusted life-years (DALYs) (2). This group of illnesses tends to target younger people and remains an important cause of death in younger people in many countries. Including other non-communicable diseases such as digestive and kidney diseases, gynaecological conditions and musculoskeletal disorders, NCDs in total contribute to 19.6% of deaths and over half of disability-adjusted life-years (DALYs) (63).

The health, social, and economic burdens of NCDs are set to increase in the coming years and decades, and this group of largely preventable diseases threatens to undermine social and economic development in LMIC (3).

### NCD processes

In order to address NCDs at an international level, WHO has developed an action plan (the WHO NCD Action Plan 2013-2020), containing a 4X4 approach, addressing the 4 most common NCDs and their 4 modifiable risk factors, and 9 voluntary targets for countries to achieve to overcome them. Appendix 3 of the Plan sets out evidence-based and cost-effective policies that can be implemented at the national level. In order to increase the achievement of these processes (8). WHO member states adopted a Global Coordination Mechanism (WHO GCM on NCDs, 2014) to accelerate the implementation of the WHO Action plan, and support multi-sectoral action involving WHO member states, UN organizations and non-state actors (9).

In 2015 action on NCDs was furthermore implemented into the 2030 agenda for Sustainable Development, under Sustainable Development goal 3: healthy life and wellbeing for all. Target 3.4 aims to reduce the premature mortality from NCDs by one third by 2030, through prevention, treatment and the promotion of mental health and wellbeing. Additionally, target 3.5 mentions the prevention of harmful alcohol use (10). In 2017, the Montevideo Roadmap 2018-2030 on NCDs as a Sustainable Development priority was launched to further commit to these targets (11). In 2018, the Third UN High-level Meeting on NCDs was hosted by the President of the 73rd session of the General Assembly. The purpose of the meeting was to allow Heads of State and Government to conduct a comprehensive review of the progress achieved in reducing the risk of dying prematurely from NCDs, as agreed at the First High-level Meeting in 2011 and reaffirmed at the Second High-level Meeting in 2014. The meeting on NCDs confirmed the scope at the global level to include mental health conditions as a fifth disease and air pollution as a fifth NCD risk factor (85).

### Discussion:

#### *Social determinants of Health*



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The Social Determinants of Health are social, political, cultural and environmental factors which influence individual and group differences in health status. These health determinants are recognized as the major barrier to health equity, creating an urgent need to act upon those determinants to achieve better health for all. Below, a few social determinants specifically important to the NCD debate are highlighted.

### Socioeconomic determinants

Contrary to popular belief, the biggest toll from NCDs is in LMIC. More than three quarters of all deaths, and over 80% of premature deaths, occur in these countries (12). This disproportionate disease burden is not just felt on a global scale, however. People of low socioeconomic status in all countries suffer more from NCDs, and are more likely to exhibit many of the causes of these diseases. Smoking, poor diets, and, increasingly, physical inactivity are more common in these populations, and the burden increases along the social gradient (13).

A large proportion of deaths in many low-income countries is still caused by communicable diseases, especially lower respiratory diseases and diarrheal diseases. Despite the larger absolute burden of NCDs in LMIC than in higher income countries, the proportion of deaths due to these conditions decreases steadily as income drops (14). Nonetheless, many countries are now facing a double burden of communicable and noncommunicable diseases, which may place already fragile healthcare systems under greater pressure (15). Furthermore, this trend is increasing rapidly – by 2020 it is predicted that 70% of deaths in these countries will be due to NCDs (16). NCDs are becoming more common, while rates of communicable diseases are dropping. To prevent this from reaching a breaking point, investment in prevention is needed, and attention must be focused first and foremost on LMIC if we are to see the greatest benefits.

The vast differences in prevalence of NCDs between and within communities and countries of differing socioeconomic status and income is striking. NCDs cause and perpetuate inequality, and will continue to do so without coordinated action.

### Commercial determinants

Beyond social determinants, there has always been critical public health analysis of the power of the corporate sector and attention has turned to other areas of influence in recent years, including profit-driven and corporate practices harmful to health. The focus on NCDs as just a consequence of lifestyle choices has also been extensively critiqued, especially in relation to marketing to children (17).

A growing argument is that these choices are largely driven by the so called commercial determinants of health, defined as “strategies and approaches used by the private sector to promote products and choices that are detrimental to health”. This concept unites consumer behavior, individualization and choice on the micro-level as well as global risk society, global consumer society and the political economy of globalization on the macro level (18).

Corporations gain influence through four main channels:

- i) marketing, which makes the desirability and acceptability of unhealthy commodities grow;
- ii) lobbying, which can limit policy barriers such as plain packaging and minimum drinking ages;
- iii) corporate social responsibility strategies, which can rebuild corporate reputation and redirect attention;
- iv) and extensive supply chains, which amplifies company’s influence around the globe (18). Health outcomes are determined by the influence of corporate activities on the social environment in which people live and work: namely the availability, cultural desirability, and prices of unhealthy products. The environment shapes the so-called lifeworlds, lifestyles, and choices of individual consumers—ultimately determining health outcomes (19).

### Urbanization and its impact on NCDs



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Over the last few decades, traditional societies in many developing countries have experienced rapid and unplanned urbanization, which has led to lifestyles characterized by unhealthy nutrition, reduced physical activity and increased tobacco consumption (20). The United Nations (UN) recognizes that urbanization has implications for health including increased pollution and higher rates of both communicable and non-communicable diseases (21).

Throughout the process of development and urbanization, national economies further shift away from physically active economic activities such as farming, mining and forestry, and move towards more sedentary occupations, many of which are office-based. Technological innovation leads to decreased activity in previously physically demanding jobs (22). Studies found positive associations between urbanization and the prevalence of NCD risk factors, especially in developing countries (23).

## **Tobacco**

Tobacco remains one of the leading risk factors for NCDs as a result of both direct use and exposure to secondhand smoke. Each year it is responsible for over 7 million deaths worldwide(24). Tobacco use is also a significant contributor to health inequalities, with people from low and middle socio-economic groups representing 80% of cigarette consumers (25). In addition, nearly 40% of adults who are smokers or ex-smokers started smoking before the age of 16 (26). Therefore, we believe that the protection of young people and the fight against health inequalities must be the focus for any new tobacco control strategy. Further steps need to be taken in preventing young people from becoming addicted to this lethal habit.

Second-hand smoke exposes the public, including children to the noxious and carcinogenic effects of tobacco. Smoke-free laws are a crucial part of the solution as they protect the health of non-smokers and encourage smokers to quit without directly harming the industry (86). Taking into account that counselling and medication can more than double the chances of quitting successfully (50). Progress still needs to be made, as only 18% of the world's population is protected by national smoke-free laws and that 15% have access to comprehensive cessation services with cost-coverage (24).

The WHO Framework Convention on Tobacco Control is one of the most rapidly embraced treaties in the history of the United Nations, with 186 signatories and Parties covering 95.8% of the world's population (28). It contains legally binding obligations for its Parties, addresses the need to reduce both demand for and supply of tobacco, and provides a comprehensive direction for implementing tobacco control policy at all levels of government. To help make the guidelines set by the FCTC, MPOWER measures were introduced corresponding to the articles of the Framework Convention (29). In 2017, 4.7 billion people were covered by at least one best-practice policy intervention from MPOWER, a steady increase from the 1 billion 10 years ago (30). Progress in the implementation has been steady since its entry into force, but varies between different articles, ranging from 20 to 88% (31). There is a need for parties to accelerate their activities in order to reach the NCD target to reduce tobacco use by 30% between 2010 and 2025 (31).

The economical and legal stakes of the tobacco industry have a major impact on health. WHO has recommended several cost-effective measures in this regard such as adding a tax to tobacco products, labelling tobacco products with warnings about associated health risks, introducing plain packaging, placing comprehensive bans on tobacco advertising and disseminating educational mass media campaigns (32). Furthermore, limiting tobacco purchase and consumption to a certain minimal age and eliminating all forms of illicit trade in tobacco products are important measures that need to be considered around the world (33).

The WHO and other relevant stakeholders recently drew attention to the harmful impact of tobacco on the environment in terms of water pollution, deforestation, climate change, and the waste it produces (34, 35). Tobacco farming is a complicated process involving heavy use of chemicals that can create environmental health problems, particularly in low and middle-income countries. For example, the



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industry in those regions frequently hire children, putting them at risk of green-tobacco sickness (nicotine absorbed through the skin) (35).

Additionally, there is increasing interest surrounding the use of electronic nicotine delivery systems, with electronic cigarettes being the most common type (78, 79). The health impacts of electronic cigarettes are still debated, with some brands posing a higher risk than others (79). Importantly, although electronic cigarette use is touted as a harm reduction strategy for regular cigarette smokers, almost 80% do not quit smoking upon switching to e-cigarettes - this places them at higher risk of adverse health outcomes. This highlights the need for more research and regulatory policy in this area. A wide range of regulatory strategies pertaining to e-cigarettes exists globally, with many countries lacking specific legislature about this issue (80).

## **Alcohol**

The harmful use of alcohol results in approximately 3.3 million deaths each year; accounting for 5.9% of all global deaths and 5.1% of the burden of injury and disease as measured in disability-adjusted life years (DALY) (36).

The level of alcohol consumption considered harmful by the WHO is defined as an average of more than 40 grams of pure alcohol per day for males, and 20 grams per day for females. Whereas Heavy Episodic Drinking (HED) is defined as 60 or more grams of pure alcohol on at least one occasion at least once a month (81). It should however be noted that recommended alcohol consumption implemented by governments vary across the world (38).

Alcohol consumption is associated with many harmful diseases and is targeted in SDG 3.5; "Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and the harmful use of alcohol" (82). In addition to this, it is a causal factor in more than 200 disease and injury conditions (as described in Classification of Diseases and Related Health Problems (ICD): alcohol dependence, liver cirrhosis, cancers and injuries. Alcohol consumption can have an impact not only on the incidence of diseases, injuries and other health conditions, but also on the course of disorders and their outcomes in individuals.

Drunk – driving injuries are also strongly linked to the harmful use of alcohol. Majority of the WHO member states have enforced a limit on the Blood Alcohol Level (BAC) to reduce drunk - driving (ranging from 0.05% to 0.08%), with 31 countries yet to impose any sort of limit.

Moreover, there is a close relationship between drinking and violent crime, including domestic violence. Alcohol - related harm is determined by three related dimensions of drinking: the volume of alcohol consumed, the pattern of drinking and the quality of alcohol consumed (36).

Marketing and advertising of alcohol is known to increase consumption (83). While a majority of countries have some sort of ban on beer advertisements on TV and radio, almost half of countries have not imposed a ban on advertising through the internet. An alarming thirty - five countries have no ban on advertising in any sort, mostly located in the Africa and Americas.

## **Obesogenic environment**

Many people today are faced with an environment that simultaneously promotes physical inactivity and unhealthy eating. This makes it difficult for people to make healthy choices, as it is often easier, more accessible, and more convenient to take the unhealthy option. The impact of environment on the development of NCDs, as for other risk factors, follows the social gradient. Shaping our environment, then, must be key in any effort to combat obesity and NCDs (19).

## Childhood and Adolescence Obesity



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In 2016, a total of 124 million children and adolescents (aged 5 to 19) were obese in comparison to one tenth of this number (11 million) in 1975. In addition, a total of 213 million are overweight yet didn't cross the threshold of being obese (87). Factors driving this rise include poor diet and lack of exercise, and are mainly driven by systemic factors such as a lack of fiscal policy discouraging intake of unhealthy food and drinks, poor access to healthy food and exercise-conducive environments, rather than individual choice (44). Many children are growing up in a society which promotes high energy intake while encouraging physical inactivity. Consequently, many are becoming overweight or obese. Most of these children will remain above the recommended BMI into adulthood, which makes them more susceptible to develop NCDs (45).

Education plays a vital role in reducing obesity through its relationship with diet and physical activity. Education is also paramount in inculcating good lifestyle habits as well as providing teaching on health prevention and establishing a life-course approach to combat obesity and NCDs in general (42). It is thus important for states and institutions to continue to promote physical activity and healthy diet in schools, but also to raise awareness about a healthy lifestyle.

### The nutrition transition

The economical and technical improvements that have come with urbanization, have increased access to supermarkets resulting in large-scale reduction in the prices of unhealthy food (46). These developments are partially responsible for a change in diet contributing to the obesity epidemic, in which children and adults are both victims. The habitual food consumption changed into a diet dominated by higher intakes of fat, added sugars, animal source foods, refined and processed foods, coupled with a fall in fiber and cereal intake (46,47). Despite the fact that access to supermarkets has been improved in many countries, there is still a lack of access to healthy and nutritious food for many people, especially in rural and poorer urban areas. Economically disadvantaged areas have been referred to as 'food deserts' due to the absence of modern supermarkets (48). The relatively poor access to affordable and nutritious food can result in malnutrition.

### Food marketing and advertisements

Multinational food and beverage companies are an indisputable cause of the obesogenic environment, encouraging the over-consumption of unhealthy food and beverages for profits through industry tactics such as lobbying, undermining independent science and the threat of litigation. Besides, industry promoted voluntary guidelines, codes of conducts and cooperation with the government are often used to avoid governmental regulations (51). Multinational food corporations have billions of dollars available to block or manipulate governmental actions or regulations, with the overall aim to prevent a decrease in the consumption of their products.

Despite this, it has been proven that government regulations such as taxes, labeling and marketing restrictions have a significant effect on the consumption of unhealthy food products [ref]. One specific sugar-control policy that has gained significant support and evidence in recent years is a tax on sugar-sweetened beverages (SSBs). Mexico implemented the tax in 2014, and the results suggest that taxation has a strong influence on purchasing patterns, which has the potential to greatly reduce obesity (52,53). Furthermore, it has also been proven that different front-of pack labeling systems guide healthier food choices amongst consumers (54). Countries like the United Kingdom, Ecuador and South Korea have adopted the so called 'traffic light labelling system', in which red, amber and green colors are used on food packages to represent high, medium and low amounts of each nutrient respectively (55). Food marketing and advertisements towards children and young adults also contribute to the incidence of obesity. It has been demonstrated that children prefer branded packages over plain packages, and that they would prefer packages that feature characters from children's movies (56).

### Physical inactivity



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Physical inactivity attributes to 3.2 million deaths globally (57). It is estimated that physical inactivity is implicated in 21–25% of breast and colon cancers, 27% of diabetes and 30% of ischemic heart disease (58). Globally, 23% of adults and 81% school-going adolescents are insufficiently active (59). In 2008, a range of 31% of adults globally were reported to be insufficiently active and hence at risk of NCDs on the long term.

Modern lifestyle patterns such as sedentary behavior at work and home, and insufficient participation in recreational sports has led to an overall decreased level of physical activity. Urbanization has furthermore created an unfavorable environment of increased violence, high-density traffic, low air quality, pollution, and a lack of parks, sidewalks and sports/recreation facilities has discouraged participation in physical activity (60).

For the 10% relative reduction in prevalence of insufficient physical activity by 2025 agreed in WHA 66.10, key areas of the interventions namely Environment (urban design and transport), Schools, Healthcare, Sports, Community-wide programs, Workplaces and Public Education/awareness are recommended. Providing counseling as part of primary health care services and implementing community wide public awareness campaigns have been shown to be cost-effective measures (61).

### **Environmental Health Risk Factors**

23% of all global deaths are linked to the environment (84). Two thirds of the 12.6 million deaths resulting from environmental health risk factors are due to NCDs. The most leading environmental health risk factor in the death toll is air pollution. Environmental Health Risk Factors contribute to increasing global burden of disease of the NCDs through sharing in the upscaling and wide spreading of cancers, mental illness, Cardiovascular diseases, COPD, Asthma and Musculoskeletal diseases.

According to the World Health Organization, around 91% of the world's population is living in areas where the quality of air is not matching the WHO guideline limits (90). Air pollution as a risk factor for NCDs can be subdivided into Ambient and Household Pollution. 4.2 million lose their lives annually due to ambient air pollution and 3.8 million face the same consequence as a result of the usage of and the exposure to primitive cookstoves and their fuel.

Ambient air pollution contributes to 29% of DALYs lost by lung cancer, 43% of DALYs lost due to chronic obstructive pulmonary disease, as well as 24% and 25% of strokes and ischemic heart disease respectively (88).

Household air pollution on the other hand, contributes to the upscaling of NCDs through releasing dangerous chemicals within the confined environment of primitive housing. Such chemicals include carbon monoxide, polyaromatic hydrocarbon, particulate matter, methane and volatile organic compounds as a result of incomplete combustion of solid fuels like wood, dung and coal in inefficient stoves (89).

### **Finances**

Globally, domestic and international funding for cost effective interventions for NCDs is grossly inadequate compared to the financial burden of disease. Consensus is growing that the SDGs will not be primarily financed from international aid budgets, and countries require catalytic funds to build national capacity to address NCDs. Despite the fact that NCDs account for almost 70% of global deaths (many of which are premature) (66), donor support for programs such as communicable disease and maternal and child health greatly outweighs that of NCDs (67).

Regulatory and fiscal policies such as taxation on health-harming products have been proven in many occasions to be effective as part of a comprehensive strategy, to prevent and control NCDs. A financial incentive for individuals to avoid health-harming behaviors sends a strong message about the importance of preventing NCDs, and when combined with education, empowers individuals to feel confident in making the right choices for their health. Not only do regulatory and fiscal policies prevent





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NCDs, they are also highly cost effective for governments, and provide an opportunity to increase financing for health and development at a national level. A cost-benefit study showed that for every US dollar invested in implementing a tobacco price increase of 125% in a low or middle income country (LMIC), which would achieve a 50% reduction in tobacco use, the government would receive 10 US dollars in return (68). A meta-review on the effectiveness of fiscal policy interventions for improving diets and preventing NCDs showed that evidence was strongest for the effectiveness of sugar sweetened beverages (SSBs) taxes in reducing consumption, and of fruit and vegetable subsidies in increasing consumption (69). Money raised through the taxation of health-harming products can be reinvested into other public health programs such as health education and promotion activities and subsidizing health-promoting behaviors.

### ***The role of youth as a vulnerable group with an operational role***

Adolescents and youth are a tremendous resource that is often overlooked in the fight against NCDs. The WHO estimates that 70% of premature deaths in adults are the result of risk factor behaviors that began during adolescence and youth (70). As a result, two thirds of premature deaths in adulthood are associated with childhood conditions and behaviors. Behavior associated with NCD risk factors is common in young people: over 150 million young people smoke; 81% adolescents don't get enough physical activity; 11.7% of adolescents partake in heavy episodic drinking and 41 million children under 5 years old are overweight or obese. Adolescence is an opportunity to reinforce the benefits of positive behaviors through appropriate messages and programs. Experts estimate that the projected burden of NCDs could be cut in half or more by focusing on health promotion and disease prevention (71).

Furthermore, young people are generally considered to be healthy, and a likely consequence of this misconception, adolescents benefited the least from the epidemiological transition as represented by the smallest drop in mortality across all age groups since 2000 (72). Recently, there has been an increased focus on the specific needs, characteristics and potential contribution of young people in health, although, at the global level, this recognition has largely been confined to the area of sexual and reproductive health. However, non-communicable diseases (NCDs) and its risk factors have great importance to young people as well. For example, suicide is the third largest cause of death during adolescence, and depression is the top cause of illness and disability (73).

Apathy to change current behaviors and practices will add to the current and future NCD burden, with severe consequences for future populations and their health systems. Today's youth are today's and tomorrow's leaders and carers will bear the brunt of these costs, both financially and personally. Youth everywhere therefore have a vested interest in NCD prevention. Young people have the capacity to add value to solutions for NCDs. Complementary to the technical expertise that older generations might offer, the voices of youth may bring new perspectives, media channels and solutions to NCDs.

Youth have a right to the highest attainable standard of health and well-being. However, they often lack access to relevant and reliable health information and to high-quality and youth-friendly health services without facing discrimination or other obstacles. Young people are often targeted by companies advertising unhealthy food, tobacco or alcohol. Furthermore, many people grow up at the moment in environments that are not favorable to adopting healthy lifestyles, such as participating in sports and adopting and maintaining a balanced and healthy diet (74). Young people are furthermore highly susceptible to marketing messages (76) with those living in low- and middle-income countries experiencing the greatest barriers (75). An important aspect of NCDs prevention is therefore to limit the marketing of health compromising behaviors and products to young people.

Since youth spend much of their time at school, the school environment should also promote healthy lifestyles and reduce NCD risk factors, for example, by prohibiting smoking on school grounds, ensuring that nutritious meals are served, implementing physical activity programs, and teaching other important life skills for a healthy future.

### ***NCDs in the medical curriculum***



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In preparation for the IFMSA March Meeting 2017 and NCD Youth Caucus, Budva Montenegro, a survey was conducted within IFMSA National Member Organizations (NMOs) on current medical education practices around NCDs. There were 128 respondents of the survey, each representing the medical student population in their respective country. In the survey, around 75% of NMOs agreed or strongly agreed that more teaching was required on the topic of upstream determinants of health - that is, the social, cultural, environmental, and political conditions in which we are born, grow, study, work and age - at their medical schools. Only 7% believed that teaching on upstream determinants was adequate (77).

Another question revealed that perceptions are hugely variable concerning the perceived quality of teaching on preventive health, including the main risk factors for NCDs. Encouragingly, almost 40% of NMOs thought the quality of their education on preventative health was good or excellent. However, 32% rated it as insufficient, and 5 countries rated the quality of their medical education on preventive health as very poor. These results demonstrate the need for new and innovative ways to incorporate important topics, such as the social determinants of health, into the medical curricula, such that future medical professionals are equipped to address NCDs in a holistic and effective fashion. (77)

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