



SHORT COMMUNICATION

## Research opportunity for Prevention and Control of No communicable Diseases

### Oportunidad de investigación para la prevención y el control de enfermedades no transmisibles

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#### ABSTRACT

**Introduction:** Palestine is facing an epidemiological transformation that affects its health to the major health diseases of Non communicable diseases (NCDs) and the majority of mortality rates. The aim to know the contextualize the research requirements and prevention for Non communicable diseases (NCDs)

**Method:** using both systematic and other literature search, we identified and reviewed NCD and reported since 2000. Information was extracted from published papers. The extracted information was refined through further review and then underwent a textual narrative synthesis.

**Result:** cardiovascular disorders, asthma, cancer and chronic obstructive pulmonary diseases (COPD) are the main NCDs The key risk factors common for many chronic diseases are smoking, diet, physical inactivity, high blood pressure, and obesity.

Important epidemiological descriptions have told us of the causes and distribution of NCDs and the insufficiencies in tackling NCDs have been demonstrated by their risk factors, including non-health determinants (poverty, schooling, jobs, and health system assessments. In the shaping of the research agenda, many global initiatives and publications have given guidance.

**Conclusion:** major progress has been made in research related to Non communicable diseases in the nation. As we take its stock, it is evident that to optimize research outputs to address the increasing burden of chronic Non communicable diseases, a strategic path and thrust is needed. It needs simultaneous galvanization of monitoring, surveillance and cooperation activities, thus reinforcing efforts to provide universal health care for all people.

**Keywords:** Non Communicable Diseases; Research.

#### RESUMEN

**Introducción:** Palestina se enfrenta a una transformación epidemiológica que afecta a su salud a las principales enfermedades de salud de las enfermedades no transmisibles (ENT) y la mayoría de las tasas de mortalidad. El objetivo es conocer el contexto de los requisitos de investigación y prevención de las enfermedades no transmisibles (ENT).

**Método:** mediante una búsqueda bibliográfica sistemática y de otro tipo, se identificaron y revisaron las ENT notificadas desde el año 2000. La información se extrajo de los artículos publicados. La información extraída se refinó mediante una revisión posterior y luego se sometió a una síntesis narrativa textual.

**Resultados:** los trastornos cardiovasculares, el asma, el cáncer y las enfermedades pulmonares obstructivas crónicas (EPOC) son las principales ENT Los factores de riesgo clave comunes a muchas enfermedades crónicas son el tabaquismo, la dieta, la inactividad física, la hipertensión arterial y la obesidad.

Importantes descripciones epidemiológicas nos han hablado de las causas y la distribución de las ENT, y

las insuficiencias a la hora de abordarlas han quedado demostradas por sus factores de riesgo, incluidos los determinantes no sanitarios (pobreza, escolarización, puestos de trabajo y evaluaciones del sistema sanitario). A la hora de configurar la agenda de investigación, muchas iniciativas y publicaciones mundiales han servido de orientación.

**Conclusiones:** se han hecho grandes progresos en la investigación relacionada con las enfermedades no transmisibles en la nación. Al hacer balance, es evidente que para optimizar los resultados de la investigación con el fin de hacer frente a la creciente carga de enfermedades crónicas no transmisibles, se necesita un camino y un impulso estratégicos. Es necesario galvanizar simultáneamente las actividades de seguimiento, vigilancia y cooperación, reforzando así los esfuerzos para proporcionar asistencia sanitaria universal a toda la población.

**Palabras clave:** Enfermedades No Transmisibles; Investigación.

## INTRODUCTION

Non-communicable diseases (NCDs), basically hypertension, diabetes, cardiovascular malady, cancer, and inveterate respiratory maladies, slaughter 41 million individuals each year, contributing to 71 % of worldwide passing.<sup>(1)</sup> NCDs excessively influence individuals in low and middle-income nations (LMICs), where more than 75 % of worldwide NCD passing happen. The developing burden of NCDs in LMICs includes to existing wellbeing dangers and declines destitution.<sup>(2)</sup>

Such challenges are exacerbated in delicate settings, which are characterized by frail wellbeing frameworks where anticipation and administration are exceptionally challenging.<sup>(3)</sup> studies have recognized four behavioral hazard variables for the major NCDs which cause up to 80 % of mortality-tobacco utilization, hurtful utilize of liquor, unseemly count calories, and physical dormancy.<sup>(4)</sup> It is known that these chance components are decided by a many determinants within the social, financial, commerce, social, etc which are implanted within the environment and are experiencing quick move. Palestine is encountering a rising burden of NCDs.<sup>(5)</sup>

It has been estimated that about two-thirds of elderly Palestinians suffer from unremitting illnesses. In 2016, cardiovascular disease remained the primary driving cause of passing among Palestinians, reported bookkeeping for 30,6 percent of passing; cancer was the latest driving cause of passing, with 14,0 percent of passing; diabetes complications ranked fourth with 8,0 percent.<sup>8</sup> (Ashour et al.2008) study assessed that 12,7 % of population had at slightest one NCDs.<sup>(6)</sup>

The scope of NCDs is fair past health-they inseparably drive the financial status and largely advancement of people, families, communities, countries, and the world. Accomplishment of doable diminutions in hazard, such as a 2 % lessening in NCD passing rates per year, is assessed to extend financial development by 1 % per year after a decade.<sup>(5)</sup>

The “No Health without Research” WHO World Health Study (2012).<sup>(5)</sup> underpins the important but under-recognized aspect of research to be carried out to reinforce health systems, increase the equal delivery of high-quality health care and foster human growth.

In Palestine, not sufficient data on the quantity and scope of NCDs and war injuries, and health research on the management of NCD and war injury has been largely neglected and received little attention.<sup>(7)</sup>

The geography of the development of NCD research in the Arab world is not even plain; instead, in some higher-income countries there are towering mountains of research, while in others there are gaping voids of unmet needs. The widening inequality between higher and lower-income countries and the discrepancy between the performance of research and the burden of disease may suggest a misdirection of research funds and information development differences between countries in the area and within them. states that the degree to which national governments contribute to research funding in the Arab region varies from country to country and where available, investments are often not sufficiently matched with priority health issues.<sup>(7,8)</sup> In this paper, the creators audit the current situation of NCDs within the nation and arrangements for its avoidance and control in arrange to contextualize the inquire about necessities.

## METHOD

We have established and reviewed NCD-RCS programs, which have been introduced in LMICs and published since 2000, using both systematic and other literature searches. Knowledge was collected using a semi-structured checklist from published articles and websites relevant to these initiatives.

### Study design

A comprehensive review of particular NCD-RCS programs that have been adopted has been undertaken. This analysis concentrated on NCD Palestine, which was systematically discussed. As the study theme is not the best fit for a traditional systematic analysis, we direct the conduct of the review and report the results.

### Study settings

This study concentrated on NCD initiatives in Palestine, although most of the initiatives were carried out in partnership with high-income universities and research institutions.

### NCD in Palestine

The burden of non-communicable infections in Palestine is high, according to the Palestinian Ministry of Health (2017). Cardiovascular infections, cancer, cerebrovascular infections, perinatal time disorders, and diabetes are the driving causes of passage, associated risk factors such as smoking, unfortunate slim down, and common stationary way of life.

Life expectancy in Palestine has increased to 73,8; 74,1 in the West Bank and 73,3 in Gaza; 75,4 for females and 72,3 for males. Disability rates are 2,7 % in the West Bank and 2,4 % in Gaza.<sup>(10)</sup>

A shows that around 29 % of Palestinians live in poverty, while 2,5 million are in need of humanitarian assistance<sup>(10)</sup>. According to the World Food Program (2018), 22,5 million are food insecure.

In Palestine the (NCDs) represent the top ten killers. .Cardiovascular disease represented 29,9 % of total death (2,7/1000, 12 672 case) followed by Cancer with 15,5 %, Diabetes complication represented the third leading cause of death with 12,1 % (30,1/100 000) in west bank and come next the cerebrovascular disease 11,3 %.<sup>(12)</sup>

The Global Adult Tobacco Survey (GATS) 2010 report<sup>(14)</sup> found that 35 % of adults use tobacco in some form or other (smoking, chewing, teeth and gum application, sniffing), 21 % use only smokeless tobacco, 9 % smoke only, and 5 % smoke as well as smokeless tobacco. users in India is 274,9 million, of which 163,7 million use only smokeless form, 68,9 million smoke, and 42,3 million use both smoking and smokeless tobacco. In the region, middle east, observe high levels of behavioral risk factors have been discerned such as tobacco smoking (26,3 % in Jordan, 18,9 % in Egypt, 37,6 % in Lebanon, and 19,3 % in Palestine); low physical activity (46,8 % in Lebanon and 46,5 % in Palestine); and obesity (34,3 % in Jordan, 28,2 % in Lebanon, 34,6 % in Egypt, and 26,8 % in Palestine).<sup>(3)</sup>

The results of the study show that there is a need for significant improvements and major reforms in the health system to make healthcare programs more efficient, timely and effective. The study showed that multiple stakeholders and healthcare professionals were not using clinical guidance as well as suboptimal sectoral task-sharing.<sup>(8)</sup>

An effective health policy and multi-sectoral efforts and support are required to manage the risk factors for NCD. Such interventions in the Gaza Strip, sadly, are still missing. Policies have not been formulated yet to fix lifestyle habits. Unreliable provision of required medicines, particularly in the Ministry of Health, is a major challenge for the management of NCDs in the Gaza Strip include unreliable provision of necessary medicines, particularly in the Ministry of Health (MOH) facilities.<sup>(10)</sup>

### Research opportunity for NCDs

From the above analysis, it is evident that Palestine has adequate data to identify the epidemiology of NCDs to a large extent and inadequate data on risk factors to call for programmatic interventions. It is time, however to reflect on and reposition ourselves in order to draw up a pragmatic research agenda, driven by some core principles.

1. Evaluation of needs of different stakeholders
2. Generate contextualized proof for efficient use of study results
3. To obtain reliable, affordable and realistic research results, be resource-conscious
4. Encourage the cooperation of various research stakeholders between academia, health systems, industry, planners, program managers, funding agencies and the community. It is important to include the aforementioned categories of non-health sectors in research activities to address the non-health determinants of NCDs and their risk factors.
5. Creation of sufficient and equitably trained human capital

### Domains of Research opportunity

At the global level, important research prioritization activities have been carried out that are applicable to our ecosystems. We are now suggesting some important fields of research and some main issues to be tackled, although they are not meant to be comprehensive and complete.<sup>(10)</sup> In a domain, the things mentioned can affect those in the others. In order to be applicable to more than one NCD, the research priorities identified are general and common.

### Burden and epidemiology

Establishment of methods and tools for monitoring trends of NCD morbidity, mortality, and risk factors. There

are a few well-developed tools and methods used globally for monitoring NCDs, and they should be validated in our settings and adapted accordingly. This will allow comparisons at global level and tracking changes to global variants. Longitudinal assessments of social, cultural, and economic determinants of behavioral risk factors to characterize their relationship and impact.

1. To determine current and potential threats, measure personal risk linked to phenotypes, genotypes, and multiplicative risks.
2. Establishment of complementary, low-cost and practical screening and early detection methods for effective use of NCDs in the settings of the health system.
3. Characterize the transition to diet, physical inactivity and its local context determinants and national diversity.
4. Explore the biological basis of poverty-related health threats to improve our understanding of the link to the burden of illness
5. Examine and determine the mechanism of the effect of poverty on the adoption of high-risk actions to provide an epidemiological basis for planning interventions
6. Identify the adverse health effects of economic development by disease burden evaluations
7. Build extensive and sustainable NCD and risk factors databases (including

#### **Prevention and control for NCD Intervention**

1. Work out cost-effective and sustainable strategies for comprehensive risk mitigation in the cultural and socioeconomic settings of the country at the individual, family and community level.
2. Develop/adapt approaches that are globally accessible through operational research to treat particular NCDs and their risk factors (e.g. CVD, diabetes, tobacco).
3. Establishing and reviewing known methods used to motivate NCD prevention and control groups
4. Assessment of various risk prevention and early detection/treatment techniques, organizational structures, interventions, innovations (e.g. IT).
5. Studying behavior modification techniques to change risky habits at the level of people, families, and neighborhoods.
6. Assess the effect of economic policies on NCD risk reduction.
7. Education of the Society and its empowerment through information and the provision of facilities for use.

#### **Multi-sectoral partnerships**

1. Undertake self-assessment of the issues, provisions for resolving them within the health sector and other sectors so as to define area of concern
2. For a successful result, identify the role and mechanism of other sectors' interaction with the health sector.
3. Evolve frameworks to include government departments in NCD prevention partnerships; also include those needed within the health sector
4. Health research activities that interconnect government departments (e.g., transport, civic planning, health, education, environment)

#### **NCD surveillance systems**

1. Self-assessment of the issues, arrangements to resolve them in the health sector and other sectors in order to create an area of concern.
2. For a successful result, identify the role and mechanism of other sectors' interaction with the health sector.
3. Evolve frameworks to include government departments in NCD prevention partnerships; also include those needed within the health sector.
4. Health research activities that bridge government departments (e.g., transposition).
5. Build strategies among various stakeholders to boost understanding and advocacy of NCDs.
6. Help to create public forums that raise awareness of NCD issues on a sustainable basis.
7. Develop/adapt appropriate options for fair health care funding.
8. Establish frameworks for the equal use of necessary drugs and in the delivery of health services (accessibility and affordability).
9. Invest in studies for affordable diagnostics, medicines, vaccinations and technologies (including combined drugs), vaccines, and technology,
10. Disease/behavior population studies, DLHS/health facility rapid evaluation methods, disease registries, data from non-health industries, policy and program metrics, etc.).
11. Building capacity and processes for the effective use of data collected by disseminating information

in a timely manner, connecting strategy, preparation and execution of the program and providing research impetus.

## CONCLUSION

Major progress has been made in research related to noncommunicable diseases in the nation. As we take its stock, it is evident that to optimize research outputs to address the increasing burden of chronic noncommunicable diseases, a strategic path and thrust is needed. It needs simultaneous galvanization of monitoring, surveillance and cooperation activities, thus reinforcing efforts to provide universal health care for all people.

## Strength

The first paper that's discussed the researcher need for noncommunicable diseases, in Palestine.

## Weakness

In the future we discusses needs with stakeholder of health in Palestine.

## Summery

In this paper, the authors review the present status of NCDs and their risk factors in the country and propose a strategic research agenda to provide adequate thrust to accelerate research towards a useful outcome.

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