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Policy Implications for Diabetes Prevention and Control: An Experience from Iran

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Abstract

Background: Diabetes and its complications threaten the life of communities at global, national, and sub-national levels. Following the United Nations' call to action and develop a global action plan for the prevention and control of NCDs by The World Health Organization (WHO), all countries have a commitment to halt the rise in diabetes prevalence across the world. But the different situations of disease and risk factors, different priorities, and the context of the health care systems moved the countries to develop adapted targets and action plans.

On the same ground, Iran established a national authority construction as the Diabetes Sub-committee which is part of the Iranian Non-Communicable Diseases Committee (INCDC) and incorporated a multi-sectoral mechanism to develop the national service framework for diabetes. Accordingly, this paper is aiming at sharing Iran's experience regarding the policy implications for diabetes prevention and control. Exchange this experience could be beneficiary to other countries to lead a systematic action to prevent disability and mortality due to diabetes.

Keywords: Diabetes, Policy, Iran

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Introduction

In 2021, the number of people with diabetes (millions) was 536.6 (424.2–612.3) in the world and estimated it will be raised to 783.2 (605.2–898.6) in 2045. In Iran, the number of adults with diabetes (20–79 y), was more than 5,4 million in 2021. It is estimated this number will reach 7.1 million in 2030, and 9.5 million in 2045. Furthermore, nearly 50000 death occurred due to diabetes in 2021 in Iran (1).

If we follow the previous trends based on previous health-driven, our country might be faced with a dramatic situation (2). A modeling study in Iran revealed that the proportional mortalities for diabetes would be changed from 2.3 in 2001 to 5.8 in 2030 (3). This is an alarming trend. In addition to the increase in diabetes mortality, its economic burden faced with a noticeable situation. In 2009, the estimated annual cost of diabetes in Iran was $3.64 billion (US$) and it is predicted to rise to reach $9.0 billion (US$) by 2030 (4).

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↑What is "already known" in this topic:
Several policies from the diabetes national commitment and subcommittee collaborating with different deputy ministries of health have been implemented for decades in different parts. Still, there is no comprehensive view of policy implications for diabetes management.

→What this article adds:
With a broad perspective on diabetes prevention and control in Iran, we understand the importance of setting up a high-level policy-making committee to deliver highly coordinated direct efforts, multi-sectoral collaboration, and additional resources.

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According to WHO global action plan (5), and sustainable development goals (SDGs) (6) that target halting the rise in diabetes prevalence and reducing premature death due to diabetes, we have considered it as a national target in Iran, and made the diabetes national committee through the multi-sectoral mechanism for prevention and control diabetes (7).

The aim of this paper is present policy implications based on the experiences of Iran in leadership, capacity building, and informed decision-making regards to prevention and control of diabetes.

Political Response

In response to the global and national commitment, Iran's National Action Plan for Prevention & Control of Non-Communicable Diseases and related risk factors developed by the Iranian Non-Communicable Diseases Committee (INCDC) as a high-level political structure that approved by the Supreme Council for Health & Food Security (SCHFS) led by the president (6). In this way, the diabetes national committee as a sub-committee of INCDC, was formed by considering the multi-sectoral approach (7, 8).

Figure 1 depicts a flow chart of the Diabetes Sub-committee's structure (7), and Table 1 presents the national objectives for the prevention and control of diabetes (9).

Move to Action

Regards to diabetes prevention and control, the diabetes sub-committee has followed the national priorities including: establishing a multi-sectoral mechanism, providing necessary infrastructure, promoting of a healthy lifestyle, increasing participation of high-risk individuals in screening programs (10), increasing access and utilization of diabetes health services, improve research and development, and promote monitoring and evaluation. Accordingly, essential strategies in four dimensions are proposed for implementing related interventions (Table 2). In this way, the National Service Framework (NSF) for diabetes has been developed.by diabetes sub-committee (9) This superior document has six objectives as; Preventing the increase in diabetes prevalence and related risk factors, increasing insurance coverage for service provision, encouraging patients for regular medical examinations, improving diabetes

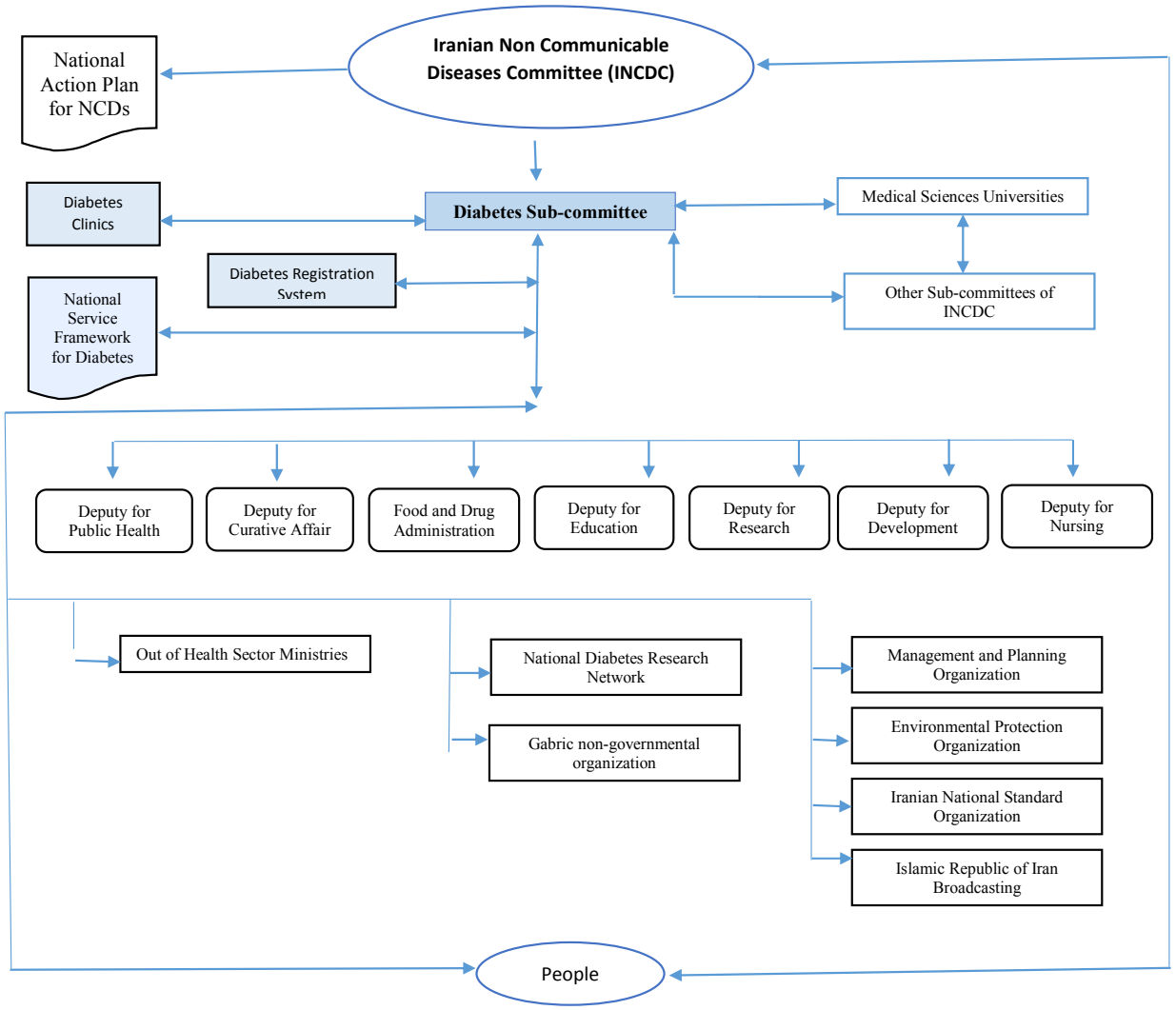

Fig. 1. Multi-sectoral structure of Diabetes Sub-committee of INCDC (7)

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Table 1. The national objectives of the Diabetes Sub-committee of INCDC

Zero increase in the prevalence of diabetes and a significant decrease in its risk factors
Expansion of diabetes health coverage to 90% of all diabetics by 2025
Decreasing HbA1c levels of patients with diabetes to lower than 7% in 85 percent of diabetics by 2025
Ensuring that 100% of diabetic patients regularly attend periodic diabetes health checks by 2025
100% registration of diabetes patients on the national diabetes register by 2025
Full insurance coverage of all basic diabetes medications and instruments by 2025

Table 2. The Essential strategies of the Diabetes Sub-committee of INCDC

Governance:

- Multi-sectoral collaboration with other sectors and the health insurance system
- Evidence-based policy making for efficient and effective interventions,
- Development of national guidelines, and national service framework for diabetes

Prevention and reduction of risk factors:

- Risk factors of prevention and control in the healthy population and diabetic patients
- Addressing special groups such as children, and pregnant women
- Improving the general population, and patients' health literacy

Health care:

- improve access and utilization of diabetes-care services, use of professional staff,
- Providing the best specialized and subspecialized care and services for diabetic patients,
- Development of a functional diabetes referral system
- Optimize care for hospitalized patients and diabetes emergencies

Surveillance, monitoring and evaluation:

- Knowledge promotion and research development about diabetes epidemiology and the burden of diseases at national and sub-national levels
- Design and implementation of performance evaluation processes by medical universities in all provinces of Iran
- Complete registration of diabetic patients in both inpatient and outpatient settings,
- Ongoing monitoring of diabetic patients under the supervision and auspices of medical universities,
- Conduct STEP's survey and present information on national, provincial, and district levels

patients' life quality, expanding the National Diabetes Registration System, and insurance coverage for diabetes devices (9).

The Diabetes Sub-committee of INCDC has a leadership role at the national level and sub-national levels (Provincial and university levels) to make policies with due regard to the prevention and control of diabetes. As a result, the National Service Framework (NSF) for diabetes along with NCDs' national action plan, was announced to different parts of the Health system (11).

It is noticeable that conducting national programs needs high-level policy-making structure to deliver coordinated efforts in different parts of the health system, and out of health sectors. The diabetes sub-committees INCDC as the high-level policy-making committee could be helpful in setting up health in all policies among all governmental sectors, human and financial resource mobilization, private and non-governmental sector motivation towards prevention and control of diabetes by considering national targets and strategies.

Besides our achievements, we faced noticeable challenges in recent years. A sanction, and the dramatic syndemic of covid-19 and NCDs have made our way more difficult (12, 13).

Conclusion

In conclusion, we benefit from inter, and intra-sectoral collaboration approach in policy-making, planning, and implementing programs. Also, international agencies' support could be helpful in accelerating the prevention and control of diabetes programs in the difficult way forward.

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Conflict of Interests

The authors declare that they have no competing interests.

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