

# Technical meeting on addressing real-life complexities in the prevention and control of Noncommunicable Diseases

10 March 2015, Tel Aviv, Israel

**MEETING REPORT** 

# ABSTRACT

On 10 March 2015, 32 participants including Noncommunicable Diseases (NCDs) technical experts from 10 Member States, met for a technical discussion to address the increasing trend of co-existing multiple risk factors for NCDs and the complexities associated with NCD multi-morbidity. There were opportunities to share country and international experience on data-driven health monitoring that address these increasing challenges of tackling NCDs. This technical meeting also included the inauguration ceremony of the new WHO Collaborating Centre for NCD Research, Prevention and Control at the Clalit Research Institute. This new Collaborating Centre will benefit the Member States in utilizing data-driven proactive preventive models for prevention and control of NCDs.

#### **KEYWORDS**

CHRONIC DISEASE HEALTH POLICY MEETING REPORTS MORBIDITY RISK FACTORS SURVEILLANCE

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# Introduction

The Clalit Research Institute has recently received designation as a WHO Collaborating Centre on Research, Prevention and Control of Noncommunicable Diseases (NCDs). As part of its mandate as a WHO Collaborating Centre, it undertakes activities to contribute to policy development, prioritization and planning pertaining to the implementation of the Global Action Plan for the prevention and control of Noncommunicable Diseases 2013-2020. Additionally, the Clalit Research Institute as a WHO Collaborating Centre aims to provide technical support in the follow-up of the September 2013 Tallinn meeting on the use of new data sources in NCD surveillance and follow-up of the December 2014 Vilnius meeting on integrated NCD surveillance.

The Clalit Research Institute organized this technical meeting on the use of health data for policy development in the area of prevention and control of NCDs in collaboration with the World Health Organization Regional Office for Europe. This meeting served as a second platform for a group of experts in the area of data-driven health monitoring to discuss country support and future activities on the potential for broad application of innovative data-driven methodologies in their countries, as a means to address the increasing challenges and complexities of tackling NCDs.

This technical meeting also included the inauguration ceremony of the new WHO Collaborating Centre for NCD Research, Prevention and Control at the Clalit Research Institute.

# Outline of the meeting

This meeting brought together experts from ten Member States to address the increasing trend of co-existing multiple NCD risk factors and the complexities associated with NCD multi-morbidity, as well as to discuss innovative data-driven approaches that can assist in tackling these challenges.

The meeting objectives were as follows:

- 1. To discuss the use of health data for policy development, specifically in the area of NCD prevention and control;
- 2. To present examples of types of data-driven health monitoring that address the increasing challenges and complexities of tackling NCDs;
- 3. To consider the impact of real-life complexities associated with multiple concomitant NCD risk factors and multi-morbidities;
- 4. To support the potential for future application of innovative data-driven methodologies in member state countries;
- 5. To inaugurate the new WHO Collaborating Centre for NCD Research, Prevention and Control at the Clalit Research Institute.

# Welcome and introduction

The meeting was opened by greetings from Prof Alex Leventhal of the Ministry of Health Israel, who introduced the health care setting in Israel as one that merges the spirit of a 'startup nation' encouraging innovation, with the quality of care standards of traditional health care organizations such as Clalit Health Services.

This was followed by addresses of Dr Gauden Galea of the WHO Regional Office for Europe, Prof Arnon Afek of the Ministry of Health Israel, Prof Haim Bitterman of the Clalit Health Services, and Prof Ran Balicer of the Clalit Research Institute. The speakers reflected on the fact that while Israel and other countries in the European Region have a relatively high quality of life, the NCD epidemic of this century is pivotal and still needs to be controlled with the minimal health resources that are available. They reinforced the need for a new commitment of alternative resources and governmental involvement, to secure the health of our future. It was suggested that the opportunity to work with Clalit can promote and connect ideas and knowledge for how to address some of the key challenges facing health care systems. This is because Clalit has the size (4 million), the market share (52%), the breadth (over 40,000 employees, 1400 clinics, 14 hospitals, and 30% of the inpatient beds), and longterm continuous membership to observe acute and chronic diseases, often from 'cradle to grave.' It was also presented that multi-morbidity and multiple risk factors represent a new scenario from that in which doctors are traditionally trained. Therefore, it was emphasized that there is a need to develop modern techniques to help clinical managers design, establish, and activate intervention models.

Finally, it was reaffirmed that this meeting was also in celebration of the launch of the WHO Collaborating Centre on NCD Research, Prevention and Control, at the Clalit Research Institute, through which innovative methodologies and data for interventions could serve as opportunities for ongoing future collaboration.

Ms Chandra Cohen-Stavi of the Clalit Research Institute introduced the meeting objectives followed by a round of introduction of the participants in the room.

# Multiplicity and complexity of NCD control (Plenary I)

This session was chaired by Prof Arnon Afek, Ministry of Health Israel, who underscored the importance of respecting the multicultural background in order to achieve the shared goal of preventing chronic disease.

Presentations were given by Dr Gauden Galea of the WHO Regional Office for Europe, and Prof Ran Balicer of the Clalit Research Institute.

- Dr Galea emphasized the value of data as a portal for clinical and political forces to facilitate needed changes in health care. It was acknowledged that while basic epidemiological indicators (mainly cause-specific mortality) are actively monitored in Europe, there have been dramatic changes in the distribution of NCD incidence, with the accumulation of multiple risk factors and multiple chronic diseases. These trends are, in part, attributed to the increase in life expectancy across the European region;
- Prof Balicer then noted the seven-year gap between males and females in the development of multiple risk factors. Moreover, the need for observational research, risk stratification, and focus on synergistic effects was highlighted as a way to overcome the limited applicability of clinical trials in real-world medicine. It was suggested that a transformation is required to shift the paradigm from reactive single patient medicine to proactive population management.

The trends in NCDs could reflect changes in the immediate political history. Poland's rapid reversal of CVD mortality in relation to a growing economy was highlighted. Rates of obesity, alcohol consumption, and tobacco use responded rapidly to price fluctuations alongside outcomes of NCDs. The use of registries, alerts, surveillance systems, and interoperable health information exchanges to track and drive policy adaptations were presented, as well as the current frameworks for addressing these trends (Global Action Plan, Health 2020, Global Monitoring Framework). The effect of 'dirty politics' on the ability to enact real-time interventions was also presented, as were the challenges facing the use of electronic medical records to implement changes.

Key points of discussion were:

- The treatment of patients requires a holistic system, whereas the fragmentation and division that exists within and among institutions often prevents achieving effective treatment and care for patients;
- Competition can be offered as an influential driver of improvement in health care delivery;
- The complex involvement of economic advisers, particular in describing long-term financial and economic gains, is a critical component in engaging politicians;
- The need for converting a best buy into a quick win. All groups want to spend less money overall, and that the cheapest way is also most likely the best way: to base health care on primary care;
- An important consideration was raised as to how health research and advisers can identify what can be achieved during politicians' office tenures.

# **Inaugural ceremony**

The Masters of Ceremonies of the inaugural ceremony was Dr Alex Leventhal of the Ministry of Health Israel who thanked the members of the Clalit Research Institute and the supporting leadership. The institute presented a demonstrative video on the utility of identifying data markers to support proactive patient care. A plaque was presented by Dr Gauden Galea of the WHO Regional Office for Europe, to Prof Ran Balicer of the Clalit Research Institute, recognizing their designation as the WHO Collaborating Centre for NCD Research, Prevention and Control.

At the ceremony, Dr Galea expressed his enthusiasm at the designation and noted that "information systems have become crucial to the management of the individual patient, to the planning of health services, and to the development of personalized risk scores that can adapt the advice of providers to the personal needs of the patient. In Clalit Research Institute, WHO sees a unique resource, pioneering the use of advanced data analytics in the pursuit of higher quality and improved cost-effectiveness. It is hoped this conference will raise the visibility of this work and catalyse other Member States to emulate it."

Prof Balicer, the founding director of Clalit Research Institute and head of the new collaborating centre, stated his hopes that the new collaborating centre will benefit the Member States in utilizing data-driven proactive preventive models for control of NCDs.

The Director General of the Israel Ministry of Health, Prof Arnon Afek, and chief physician of Clalit, Prof Haim Bitterman, attended the ceremony and shared their enthusiasm for the designation. Prof Bitterman noted the importance of this collaboration for Clalit and his gratitude for the inauguration, and Prof Afek noted, "this is an important landmark for us, and an important recognition for Clalit Research Institute, that through its innovative use of health data to support proactive care delivery programmes, can serve as a model for other health systems".

# NCD Risk Monitoring and Target Prevention (Plenary II)

This session was moderated by Dr Gauden Galea, of the WHO Regional Office for Europe. The session had presentations and discussion on the following topics:

 Dr Tiina Laatikainen of the National Institute for Health and Welfare in Helsinki, Finland, addressed how to develop surveillance systems that can inform policy. She focussed on how interventions related to multiple risk factors can help to rapidly improve mortality rates. She raised the issue of how to integrate the assessment of risk factors from a population-based strategy to the primary care delivery setting. Examples presented included SCORE, Framingham, AUDIT, Fagerstrom, and the FINRISK score which weighs total risk indicators, and suggests how to go from interviews, measures, test, records, and counselling, to intervention. Through systematic, organized screening, prime opportunities can be identified, responsibilities designated, and options for self-screening produced;

- Dr Stefano Campostrini of the University Ca' Foscari Venice, Italy, described the benefit of targeted interventions and continuous risk factor surveillance over time, as well as a change in the interaction between individuals and physicians. The speaker pointed out that social determinants of health are regularly an under-measured contributor; often, inequalities are masked by the improvement found in one group, e.g. higher income populations, while a low-income population can remain stable over time without any improvement. This was evidenced by an analysis of smoking data from Italy that suggested that the rich population was the driver of a positive trend;
- Prof Rutger Engels of the Trimbos Institute in Utrecht, the Netherlands, addressed mental health and addiction as an important contribution to NCDs. He mentioned that risky behaviours are more prevalent among those with low socio-economic status and also that the causal relationship between multiple factors and conditions cannot always be clearly defined. For example, depression can cause obesity and obesity can cause depression. Addressing mental health requires a fundamental understanding of the various contributors, as well as a developmental approach that targets preventative interventions to younger populations in primary care and schools. The example is given of an innovation in mental health care through the use of video games as a tool for treating depression and anxiety in children.

Key points of discussion were:

- A data-driven approach builds on what doctors know they should do, but are too overloaded to do so. Therefore, a multi-professional approach is important to develop, with, for example, nurses taking on larger roles, particularly in rural areas where there are shortages in health professionals;
- Joint research efforts between public health researchers and clinicians could be a fruitful collaborative model towards improvement;
- Financing structures must be aligned with change management engines to facilitate quality health care delivery;
- Challenges in disaggregation on the basis of social determinants were highlighted, and differences across countries were raised as a possible barrier (e.g. failed introduction of FINLAST in Israel although it was agreed that underlying mechanisms are the same);
- Several participants emphasized the need to identify simplicity out of the complexity surrounding NCDs, particularly in order to address policy aspects of NCD prevention and control. It was further argued that 'simple' solutions often lead to a better result;
- Health behaviours impacting NCDs are influenced by mental health and can be communicable, which is one reason why there is a need to incorporate mental health into the NCD agenda.

# 360-view of the patient – Addressing NCD multi-morbidity (Plenary III)

This session was moderated by Prof Ran Balicer, of the Clalit Research Institute. The session had presentations and discussions on the following topics:

- Dr Efrat Shadmi of the University of Haifa, Israel, presented a care management strategy for patients with multi-morbidity, that addresses how to navigate the care burden of these patients using limited resources. A key component of this is that it is based in primary care, with physician-nurse teams, in which the nurse serves as the coordinator. The strategy entails reconciling multiple clinical guidelines and establishing a tailored care plan with the patient;
- Prof Volker Amelung of the Medical University of Hannover, Germany, addressed how to change incentives so that the benefit that is gained comes from keeping people healthy. This can be promoted by the use of long-term contracts, mobile health and social care, and technology that serves to empower individuals. It was noted that it is important to have a fund that is dedicated to innovative initiatives as a single basket of money for greater coordination. The speaker also raised the challenge of resource shortages because of which health professionals do not want to move to rural areas. However, a lack of resources, while a challenge in itself, can also provide an opportunity for change.

Key points of discussion were:

- Because chronically ill patients need the support of multiple providers who are not trained to manage multiple guidelines simultaneously, the care delivered in silos has limited efficiency. Care delivered through telemedicine was described as a way to lower costs while maintaining quality;
- Several participants noted the need for models that balance multiple financial and political interests;
- Pilot projects are an important first step but should include a plan for how they can be scaled-up: act small and think big;
- The need for checks and balances was underscored to ensure that new programs do not have unintended negative impact on the quality of primary care;
- Furthermore, the issue of data protection was raised in the context of shared management;
- It was concluded that the aim is to make health promotion an easy choice, particularly for policymakers.

# Simulation on addressing real-life complexities for NCDs (Plenary IV)

This session had a panel of experts from Clalit Health Services who presented detailed examples of data-driven NCD prevention and targeted outreach put into practice and was

moderated by Prof Ran Balicer, of the Clalit Research Institute. The discussion was opened to all the meeting participants following the presentations.

The panel speakers emphasized how to effectively use IT and data analytics to direct prevention, to manage care transitions, and to help in the treatment of multi-morbidity. Furthermore, they highlighted methods for integrating population health management, optimizing provider visits, and increasing patient engagement. The following examples were presented:

- 1. The promotion of a smoking cessation program in Israel with group and individual reinforcement through counselling, outreach, coaching, fully reimbursed medication, and training. This example was supported by strong results of a dramatic decrease in smoking rates over a five-year period. It was pointed out that this smoking cessation program was also highlighted as an example of a failure, because in its initial implementation, physicians and nurses largely did not do the smoking cessation brief interventions with patients. While the assumption had been that the issue was insufficient time, it was found that the providers believed the project to be ineffective. After in-depth training, it was rapidly implemented. Lesson learned: Proper training of providers is crucial for program implementation;
- 2. The use of data mining to identify patients with early signs of a disease, like a slow reduction in renal function, and intervene before they develop the disease;
- 3. Creating a 'quality card' of key clinical indicators for planned proactive care, and the use of 'conversation maps' to increase patient engagement, house calls, and online patient support tools;
- 4. Integrating readmission prediction risk scores into the discharge planning process to target the high-risk patients to receive proactive care. Additionally, hospital nurses wrote the discharge letter to the clinic in the community at the time of admission. This achieved ongoing monitoring, measurement, and a feedback loop to the team.

Key points of discussion were:

- Multiple speakers reinforced their view that the distribution of chronic disease is inherently uneven, and that in order to reduce the burden, one must address health disparities. As an example, when the focus was on the lowest 10% performers of the population, they achieved through a dedicated culturally-tailored disparity reduction program a 60% reduction in the differences from the region average;
- The speakers also emphasized that an in depth and tailored care approach is what facilitates integration, as well as the use of self-reported data;
- It was also proposed that clinical decision making tools should be consistently available to providers;
- The necessity for a politically-focused reform was raised in order to improve informal care and social services;
- The successful introduction of the IT infrastructure was described to strong leadership support of the technology and a rapid integration into practice;

It was suggested that Clalit, as a strategically directed organization, maintains a link between research, the practice community, and leadership, allowing for feedback loops and innovations to be implemented and evaluated in practice.

#### Summary and closing remarks

Summary and closing remarks were presented by Prof Alex Leventhal, Prof Haim Bitterman, and Dr Gauden Galea.

The speakers described the observations of the innovations in Israel, and the ideas and experiences from a broader range of European countries that were shared. The start of this partnership was presented as an opportunity to share 'on-the-ground work,' of e-health translated into action, and to understand how to sow the seeds of a future think tank. Combining forces can improve the outcomes of the efforts in the area of prevention and control of NCDs. The day also included some descriptions of potential future steps, the importance of developing products and bringing them to the market, with innovative research designs to shorten cycles, make them more effective, and improve capacity. Designing surveillance and interventions for co-existing multiple risk factors and multi-morbidity will require further deliberations and detailed planning to support Member States in tackling these increasingly prevalent and high impact challenges. Future work should include collaborations between academia, Member States, entrepreneurs, and funders, to bring initiatives to fruition.

#### Annex 1. List of participants

WORLD HEALTH ORGANIZATION **REGIONAL OFFICE FOR EUROPE** 

WELTGESUNDHEITSORGANISATION REGIONALBÜRO FÜR EUROPA



ORGANISATION MONDIALE DE LA SANTÉ BUREAU RÉGIONAL DE L'EUROPE

ВСЕМИРНАЯ ОРГАНИЗАЦИЯ ЗДРАВООХРАНЕНИЯ ЕВРОПЕЙСКОЕ РЕГИОНАЛЬНОЕ БЮРО

Technical meeting on addressing real-life complexities in the prevention and control of Noncommunicable Diseases (NCDs) /5

Tel Aviv, Israel

10 March 2015

# LIST OF PARTICIPANTS

#### **COUNTRY DELEGATES**

Dr Alen Seranic Senior Technical Officer Public Health Ministry of Health and Social Welfare of the Republika Srpska **Bosnia and Herzegovina** 

Dr Mario Šekerija Head Division of Epidemiology Croatian National Cancer Registry **Croatia** 

Ms Kristina Köhler Adviser Department of Analyses and Statistics Ministry of Social Affairs Estonia

Professor Arnon Afek Director General Ministry of Health **Israel** 

Professor Avi Israeli Chief Scientist Ministry of Health Israel Professor Alex Leventhal Ministry of Health Israel

Dr Leonid Eidelman Chair Israeli Medical Association **Israel** 

Professor Haim Bitterman Chief Physician Clalit Health Services **Israel** 

Dr Nicky Lieberman Clalit Health Services Israel

Dr Rina Yahalom Clalit Health Services Israel

Ms Calanit Kay Clalit Health Services Israel

Dr Diane Levine Clalit Health Services Israel

Dr Orit Jacobson Director Mor Institute Israel

Professor Alik Aviram Scientific Director The Israel National Institute for Health Policy Research Israel

Dr Dror Dicker Chair Israeli Association for Internal Medicine **Israel** 

Dr Efrat Shadmi University of Haifa **Israel**  Mr Lior Wolf Clalit Health Services Israel

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#### **TEMPORARY ADVISERS**

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Professor Volker Amelung Medical University of Hanover **Germany** 

Professor Ran Balicer Director Clalit Research Institute **Israel** 

Ms Chandra Cohen-Stavi Coordinator, WHO Collaborating Center Clalit Research Institute **Israel** 

Dr Stefano Campostrini Dean Ca' Foscari Graduate School University Ca' Foscari Venice Italy

Professor Rutger Engels Director Trimbos Institute **The Netherlands** 

#### WORLD HEALTH ORGANIZATION REGIONAL OFFICE FOR EUROPE

Dr Anastasiya Dumcheva National Professional Officer World Health Organization Country Office in Ukraine

Dr Gauden Galea Director Division of Noncommunicable Diseases and Promoting Health through the Life-Course

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Dr Enrique Loyola Elizondo Coordinator Division of Noncommunicable Diseases and Promoting Health through the Life-Course

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Ms Anita Strandsbjerg Programme Assistant Division of Noncommunicable Diseases and Promoting Health through the Life-Course

#### RAPPORTEUR

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#### Annex 2. Programme

WORLD HEALTH ORGANIZATION **REGIONAL OFFICE FOR EUROPE** 





Programme

ORGANISATION MONDIALE DE LA SANTÉ BUREAU RÉGIONAL DE L'EUROPE

ВСЕМИРНАЯ ОРГАНИЗАЦИЯ ЗДРАВООХРАНЕНИЯ ЕВРОПЕЙСКОЕ РЕГИОНАЛЬНОЕ БЮРО

#### Technical meeting on addressing real-life complexities in the prevention and control of Noncommunicable Diseases (NCDs)

Tel Aviv, Israel

10 March 2015

5 March 2015

# Original: English

Tuesday, 10 March 2015		Venue
08.30 - 09.00	Arrival: upon arrival please follow the signs saying "WHO Technical Meeting" to the reception area where you will be provided with your badges and picked up to go to the meeting room	Sheraton Hotel Entrance Hall
09.00 - 10.00	Welcome and introductionChairAlex Leventhal, Ministry of Health IsraelSpeakersArnon Afek, Ministry of Health IsraelHaim Bitterman, Clalit Health ServicesGauden Galea, WHO Regional Office for EuropeIntroduction of participantsObjectives of the meeting	Diamond Hall
10.00 - 10.45	Plenary session I Multiplicity and complexity of NCD control Chair Arnon Afek, Ministry of Health Israel Speakers Gauden Galea, WHO Regional Office for Europe Ran Balicer, Clalit Research Institute	Diamond Hall
10.45-11.00	Inaugural ceremony	Diamond Hall

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11.00- 11.30	Coffee break	Foyer of Diamond
	In parallel: press briefing	Hall
11.30- 13.00	Plenary session II	Diamond Hall
	NCD risk monitoring and targeted prevention	
	<b>Moderator</b> <i>Gauden Galea, WHO Regional Office for Europe</i>	
	<b>Speakers</b> <i>Tiina Laatikainen, National Institute for Health and Welfare, Finland</i> <i>Stefano Campostrini, University Ca'Foscari, Italy</i> <i>Rutger Engels, Trimbos Institute, Netherlands</i>	
13.00-14.00	Lunch	Lunch room across from Diamond Hall
14.00-15.15	Plenary session III	Diamond Hall
	360-view of the patient – Addressing NCD multimorbidity	
	<b>Moderator</b> Ran Balicer, Clalit Research Institute	
	<b>Speakers</b> Efrat Shadmi, Haifa University and Clalit, Israel Volker Amelung, Medical University of Hanover, Germany	
15.15-15.45	Coffee break	Foyer of Diamond Hall
15.45-17.00	Plenary session IV	Diamond Hall
	Simulation on addressing real-life complexities for NCD prevention and control	
	<b>Moderator</b> <i>Ran Balicer, Clalit Research Institute</i>	
17.00-17.30	Summary and closing remarks	Diamond Hall
	<b>Speakers</b> Alex Leventhal, Ministry of Health Israel Arnon Afek, Ministry of Health Israel Haim Bitterman, Clalit Research Institute Gauden Galea, WHO Regional Office for Europe	
19.00	<b>Dinner</b> Transportation will be provided from hotel entrance to the restaurant and back	Kalimera Restaurant, Jaffa Port