



## Report

# Exploring the Experience of a Knowledge-Based Organization in Developing Countries: A Case Study of the Institute for Futures Studies in Health in Iran

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## Introduction

The Institute for Futures Studies in Health (IFSH) is an Iran based organization specializing in playing a key role in foresight activities in Iran's health system. The experiences of IFSH were recently documented by a World Health Organization (WHO) representative. Drawing upon this, this report introduces the IFSH, its structure, objectives, and management system.

IFSH has three main pillars to its work, the integration of science and practice, social responsibility, and intelligence through the use of future studies. The IFSH has developed a foresight portal-based framework that has seven main modules:

1. Terminology
2. Experience-based learning,
3. Environmental scanning,
4. Evidence-oriented decision making,
5. Harmonized health information system
6. Expert network

These modules are activated for doing projects based on a variety of requirements.

Overtime we have learned through our successes and failures. In summary this includes: Minimizing formal structures, taking a cross-disciplinary approach in resource management, being responsive to the real questions of the country, using futures thinking and the importance of having a win-win attitude. These are just some of the lessons that we thought are worth of sharing in this report.

The representative of the World Health Organization (WHO) in Iran, Dr. Sameen Siddiqi, made a visit to the

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Institute for Futures Studies in Health (IFSH) in November 2016. During his visit, Dr. Siddiqi was impressed by some of the unique and promising activities the Institute was conducting; hence, he decided to invite an expert to visit the IFSH on behalf of the WHO to document and publish these activities. Following this decision, the IFSH received in June 2017 the Director of the Health in the Humanitarian Crises Center at the London School of Hygiene and Tropical Medicine, Dr. Karl Blanchet.

Dr. Blanchet, with much international experience in different countries, made a 4-day visit to observe activities and interview IFSH staff. His observations were then summarized in a formal document<sup>1</sup>. In his final speech, Dr. Blanchet said, “...*there are many strengths at IFSH, and I think it is important to promote this intuition.*” Based on his recommendation and the support of the WHO office in Iran, we decided to write this paper to summarize Dr. Blanchet’s main points of analysis and recommendations, and write in more detail about the rationale behind the structure, objectives and the management system at the IFSH.

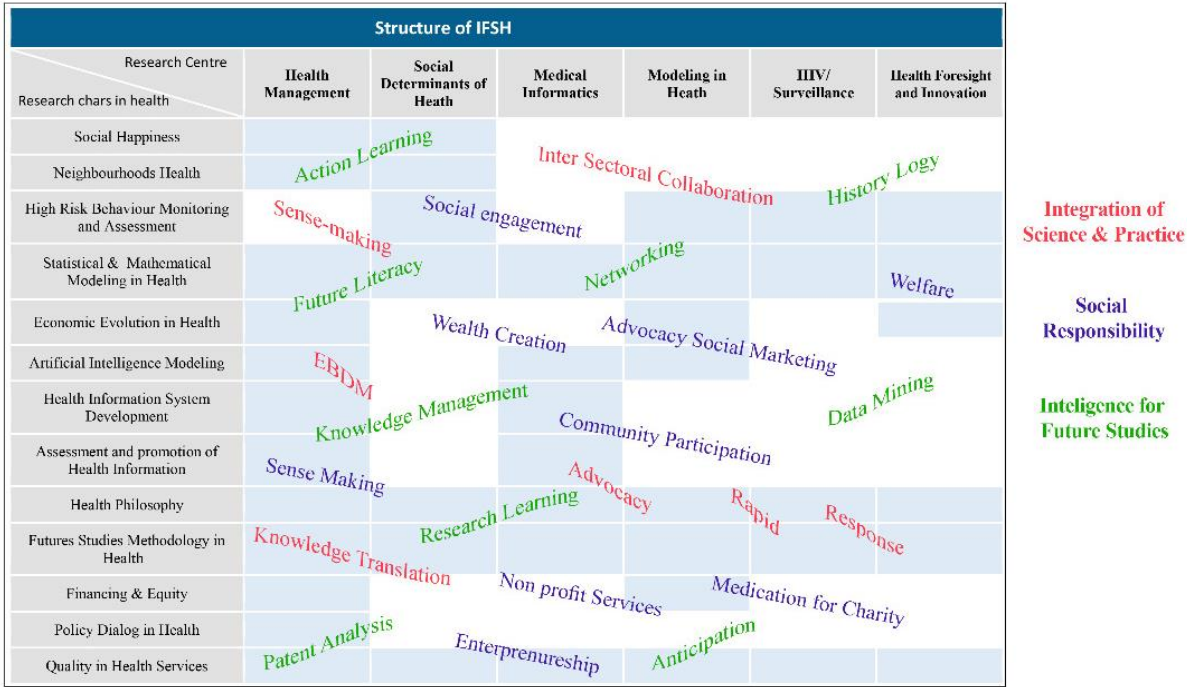
### **The Birth of IFSH and Moving Towards a Better Future**

IFSH is a research Institute affiliated with Kerman University of Medical Sciences (KUMS), launched in 2012. The Institute utilizes knowledge management in combination with the development of a more desirable future as the key concept at the core of its identity. The Institute follows four main goals, namely 1) evidence-based decision-making, 2) networking among stakeholders within and outside the health sector, 3) developing capabilities and empowerment of stakeholders, and 4) outlining strategic perspectives on health. To achieve these objectives, IFSH can rely on students and academic staff within and outside the KUMS in order to utilize maximum available resources. IFSH has a unique and innovative approach in response to many common challenges in comparable research areas such as the challenges related to human resource management (through the use of fewer full-time staff members), fragmentation between stakeholders from diverse backgrounds and disciplines (through networking with stakeholders such as faculty members, students, policy makers, managers, etc.) and financial restrictions (through absorption of direct and indirect support throughout the country and internationally by addressing stakeholders real questions).

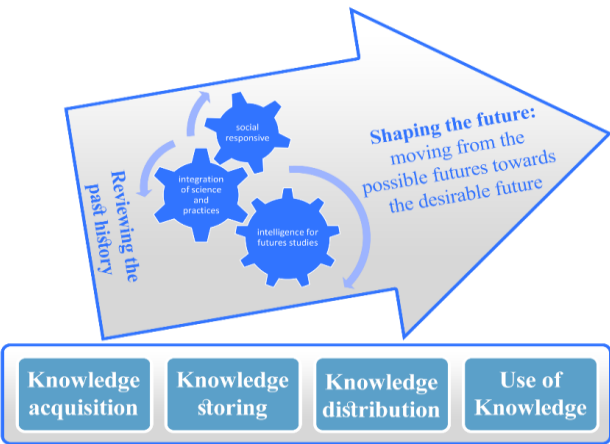
In a very short period of time after its launch, the Institute attained some outstanding achievements, which has led it to become a respected and well-known research Institute across the country, and even beyond the national borders among a wide range of policy makers within and outside the health system. IFSH has been assigned by the Ministry of Health (MOH) to develop knowledge and practice in line with the three national-level missions including future studies, medical informatics and health information systems, and statistical and mathematical modeling methodologies. In this regard and as an example, it is worth mentioning that just two years after of its launch, one of its research centers, the one on Modeling in Health, was designated in Iran as the top research center among more than 100 comparable ones.

Another distinctive feature of the IFSH is that some of the key organizations at both national and provincial levels use the capacity of IFSH to set out their foresight planning. As a result of such initiatives, every month, different teams of official authorities visit and consult the IFSH and consider the Institute as their main consulting body for their inquiries.

IFSH encompasses six research centers, mentioned in Fig. 1, and fifteen research “chairs”, which support the aforementioned goals. This figure shows how research centers (in columns) are linked with important health issues/chairs (in rows) in a dynamic system. In the matrix below, values and concepts are integrated in order to highlight three core conceptions of the integration of science and practice (in red), social responsibility (in blue), and intelligence for futures studies (in green).



Although each of the research centers have their own objectives, they all have strong collaborative links to develop insight toward the future and shape a better prospect by linking theory and practice. In this regard, it has been necessary for the IFSH to use a model for achieving the respective goals. Hence, IFSH has produced a unique and adapted model for futures studies shown in Fig. 1. This model demonstrates the level of integration and coherence within IFSH, and every product created at IFSH follow a cycle of knowledge management. This conceptual framework of IFSH shapes the desirable future based on experiences of the past, considering the four steps of knowledge management (acquisition, storing, distribution and usage). In this framework, the dynamics of work is formed based on three principles: social responsiveness, integration of science and practice, and intelligence for futures studies.



**FIG. 2: Conceptual framework of IFSH, shaping the desirable future**

## Knowledge Management as a Platform of the IFSH Conceptual Framework

Knowledge management (KM) has been used as a key concept in IFSH. KM has good potential for enhancing innovation (1), filling the gap between theory and practice (2), and facilitating sustainable development (3). It should be noted that, based on KM concepts, all political, structural, technological and human capital dimensions in an organization can be transformed into a novel competitive advantage to shape a better future. Organizational Intelligence (OI), Virtual Organizations (VO), Competency Management (CM), and Information Management (IM) as new terminologies have emerged from this perspective.

## Conceptual Framework of IFSH Innovations and Products

One of the main innovations of IFSH is NAB, an acronym for “Mapping a Better Future” in Persian. In fact, the NAB system is a customized model of IFSH based on seven main sub-systems, designed based on both a policy cycle and foresight requirements. It is expected that the output from all modules will, in addition to the main purpose of the module, lead to sense-making and the production of educational content, which in turn helps grow knowledge, generate insights, and helps to translate research into practice and policies. The audiences and stakeholders are at different levels in the health system. This brief description of the NAB module is illustrated in the figure that follows.



**Fig. 3:** The NAB system developed by IFSH

**Interactive and visualized archive of the past history of health in Iran:** one part of the NAB IFSH, consists of access to information and developments in the health system from past to the present in the form of works such as books, photos, videos, correspondence, and managerial memoirs. The main function of this module is to analyze past series of events, trends, paths, and histories on special or identified subjects.

**Terminology:** This module tries to present key concept and keyword definitions with the capability of editing support done by experts. This has the aim of achieving consensus on key terminologies in different fields of the health system.

**Experienced-based learning:** This sub-system explores categorizes and presents the best practices or failures in executive, administrative, and managerial fields through the testimonials of individuals, which helps to create a historical memory.

**Environmental scanning:** This part helps to find and analyze drivers of changes such as megatrends, trends, weak signals, wildcards, etc.

**Evidence-oriented decision making:** Tries to present the evidence to policy- and decision-makers by doing

systematic reviews, scoping reviews, etc. based on the rapid response model defined by IFSH.

**Harmonized health information system:** This module harmonizes, analyzes, and visualizes health information gathered by different data-gathering sources.

**Expert network:** This sub-system and critical part, facilitates expert engagement in the different processes of research types such as policy analysis, different phases of foresight, etc. With access to the other module, this part aims to maximize the synergies which are created by expert networking, through inter- and trans-disciplinary work.

### Iran's Curative Road Map (NEDA 2025)

The projects in IFSH use some or all of the NAB modules based on their scope. One of the examples is NEDA project. IFSH undertook work to develop a "Curative Road Map", developing foresight for the required curative resources for health service provision for all of Iran. Based on the request of the minister of health, Dr. Hashemi, a roadmap for the expansion of health facilities, ranging from district hospitals to hospitals with subspecialty services was developed for Kerman province in 2014 within 6 months. Because of the comprehensiveness of the plan, we were asked to expand the scope of this roadmap to the whole country. Within 2-years of intensive work, a national plan was created through the contribution of a team of experts from the ministry of health and from across Iran.

This roadmap modeled the population of the country at district level between 2015 and 2025. In addition, it forecasted the burden of diseases and the required hospital beds, main diagnostic and therapeutic medical equipment needed, and the required workforce in order to maximize access to health services throughout the country. In addition, the roadmap had a precise economic analysis which showed that its targets were feasible and affordable within the national health budget. The implementation of the outcomes of this project will lead to a 30% increase in horizontal equity and a 23% decrease in variance among the cities within each province (what we term "vertical equity").

Because of the consistency among different modules, and its realistic targets, the plan was approved not only by the ministry of health, but also by the government department of finance. Now, it is the master plan for the expansion of health services and the training of health manpower in Iran, covering general physicians, specialists, nurses, and other groups.

The entirety of the project was coordinated and facilitated by Kerman Medical University and the IFSH. In this project, the basic concepts of modeling, the applied concepts of health management and health economy, the current facts of the health system of Iran, local and national social values, and key international recommendations such as the concept of universal health coverage, were integrated in an innovative form to address the future needs of Iran in a feasible format.

In addition to these examples, other examples of the IFSH projects are also shown in following table:

**Table 1:** Some examples of IFSH projects and their relationship with NAB modules

Project name	Description	NAB modules
<b>IJHPM</b>	A unique international peer-reviewed journal, which was very successful to publish high quality articles in the field of health policy and management with close international contributions	Evidence-supported decision making
<b>Social Happiness</b>	This project aims to improve the level of social vitality	All modules
<b>The Backpack</b>	A platform for self-assessment to determine the skills and competencies required by the health workforces and the introduction of educational content accordingly in an interactive format	All modules
<b>Developing inter-sectoral master plans and road maps</b>	Innovative contribution to develop master plans such as road maps of the reproductive health, women's health, HIV-friendly Kerman city and so on	All modules

## Lessons Learned

After a number of projects, which included testing, piloting and evaluating these over a six year period of intensive work, we have learned that to generate social progress what works, at least in the context of Iran, is to:

1. Minimize the formal structures of our organization and its bureaucracy by seeking the effective contribution of experts at different levels by using virtual networks;
2. Use the advantage of cross-disciplinary work by creating a dynamic and attractive framework for those who may have very different knowledge, skills, and experience;
3. Translate real questions of systems to tangible research topics and encourage their managerial teams to support (financially and non-financially) those researchers who may have enough motivation and knowledge to address these questions.
4. Remove silos between research, teaching, and practice, particularly in the post-graduate level; sadly, such a separation is dominant in the traditional curriculum of colleges and universities in low-income countries, something that should be addressed;
5. Enhance Futures Thinking in order to better understand the future and facilitate and leverage the use of opportunities;
6. Enhance the creativity and skills needed to strengthen our capabilities, which will lead to better service delivery outcomes. Empowering employees to think differently has a significant impact on their creativity;

Establish a win-win rule among different research chairs and ensure mutual support for different projects that increases synergies, staff collaboration and job satisfaction.

## Concluding Remarks

The institutionalizing of knowledge management in combination with futures studies and its interrelated concepts in IFSH may be a good practical example for other research institutes, because this pattern has not only enabled the IFSH to move beyond a single discipline, but has also actively involved many disciplines in a collaborative approach to maximize cross-disciplinary benefits associated with futures studies.

## Notes

- 1- Available at <http://kmu.ac.ir/Images/UserFiles/994/file/report.pdf>

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