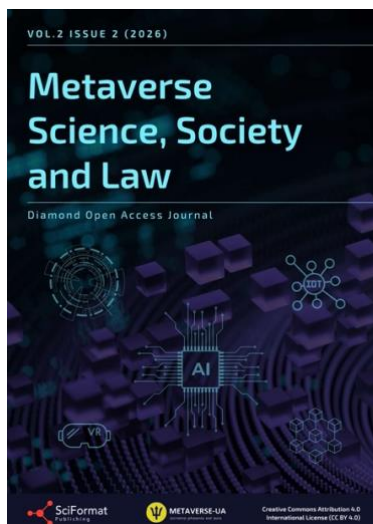




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2734 17 Avenue Southwest, Calgary,
Alberta, Canada, T3E0A7

+15878858911
✉ editorial-office@sciformat.ca

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AN AUTHOR-DEVELOPED INTEGRAL MODEL OF HEALTH AS AN OPERATIONAL FRAMEWORK FOR HEALTH ASSESSMENT AND MANAGEMENT IN THE "HUMAN- ENVIRONMENT" SYSTEM

Taras Bebeshko

Principal Co-founder, Foundation for Future, Ukraine

Kostiantyn Nadutyi

Board Member, Ukrainian Medical Association (NGO), Ukraine

ORCID ID: 0009-0006-4826-0719

Igor Naida

Ph.D. (Medical Sciences), Board Member, Ukrainian Medical Expert Community (NGO), Ukraine

ORCID ID: 0009-0008-8175-5435

Valentyn Pidvysotskyi

Head, Public Association "Humanity Movement", Ukraine

Yuriy Yekhanurov

Ph.D. (Economics), Professor, Taras Shevchenko National University of Kyiv; Director, Scientific Research

Institute for Advanced Defence Technologies, Ukraine

ORCID ID: 0009-0003-2985-1167

ABSTRACT

This article presents an author-developed integral model of health as a contemporary conceptual and operational framework applicable to strategic planning, assessment, and health management at the levels of the individual, organization, community, and public policy. It identifies the limitations of the World Health Organization's (WHO) classical definition of health as normatively idealized and insufficiently operationalized. The proposed model conceptualizes health as a dynamic state of integral human existence shaped through the coherent interaction of biological, psychological, sociocultural, environmental, and spiritual dimensions; the capacity of the human-environment system to adapt to change and maintain and restore individual balance; and an orientation toward viability, self-realization, and the generativity of life.

The model's methodological compatibility with the biopsychosocial approach, salutogenesis, and the Health in All Policies principle is substantiated. An approach to operationalizing the model through a system of criteria, measures, and indicators is proposed.

Potential applications of artificial intelligence, digital data analytics, and blockchain-based approaches are outlined for assessing the effects of various interventions on human potential, viability, and social generativity within the human-environment system.

KEYWORDS

Health, Integral Model, Biopsychosocial Approach, Salutogenesis, Health in All Policies, Viability, Self-Realization, Generativity, Artificial Intelligence, Digital Health, Human Asset, Blockchain

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Introduction

The classical definition of health enshrined in the Constitution of the World Health Organization marked a historic shift away from a narrow biomedical paradigm by extending the understanding of health to physical, mental, and social dimensions [1]. At the same time, the normative formulation of a "state of complete well-being" has proved limited in contemporary health-management practice because of its static and idealized nature and the difficulty of translating it into measurable parameters.

The conditions of the twenty-first century - wars, social turbulence, prolonged crises, chronic stress, and demographic and environmental challenges - require concepts of health that are holistic, dynamic, systemic, and suitable for management practice. In this context, important contributions include G. L. Engel's biopsychosocial model [2], its further development by F. Borrell-Carrió and colleagues [3], A. Antonovsky's salutogenic approach [4], and the intersectoral Health in All Policies (HiAP) principle, which emphasizes that health depends on decisions made beyond the healthcare sector [5].

The issue takes on added importance amid the digital transformation of society, the development of artificial intelligence systems and digital analytics, and new approaches to assessing human potential. This creates demand for concepts of health that can serve not only as worldview or ethical categories but also as an operational foundation for contemporary systems of assessment, strategic planning, and management [6].

Aim of the Article

The aim of this article is to present an author-developed integral model of health, substantiate its conceptual advantages over the classical WHO definition, and define principles for operationalizing the model through criteria, measures, and indicators for strategic planning and health-management practice.

Materials and Methods

The study employed conceptual analysis and synthesis of contemporary approaches to defining health (normative, biopsychosocial, salutogenic, and intersectoral), comparative analysis of their suitability for management, and an operationalization method that translates conceptual propositions into measurable components through the hierarchy "criterion -> measure -> indicator."

Results

1. Core Author-Developed Definition of Health

Health is a dynamic state of integral human existence characterized by the coherent interaction of biological, psychological, sociocultural, environmental, and spiritual dimensions; the capacity of the human-environment system to adapt to change and maintain and restore individual balance; and an orientation toward viability, self-realization, and the generativity of life.

This understanding shifts the emphasis from the absence of pathology or the attainment of abstract well-being to the process characteristics of health: resilience, recovery, development, and a person's capacity to create value for themselves and society.

2. Conceptual Advantages of the Model over the Classical WHO Definition

Unlike the WHO formulation of a "state of complete well-being" [1], the author-developed integral model:

- regards dynamism as a normal characteristic of health;
- conceptualizes health as a property of the human-environment system, consistent with the HiAP principle [5];
- introduces an operational core of adaptation and recovery compatible with the biopsychosocial model [2; 3];
- shifts the focus from utopian well-being to viability;
- combines the resource-oriented salutogenic approach [4] with the categories of self-realization and the generativity of life, linking individual health to social reproduction and intergenerational sustainability.

3. Principles of Operationalization: From Definition to Criteria, Measures, and Indicators

The author-developed model translates the meaning of health into manageable components through six core criteria:

1. Integrity and balance among the dimensions.
2. Adaptability of the human-environment system.
3. Capacity to maintain and restore individual balance (resilience).
4. Functional capacity and quality of life.
5. Orientation toward viability, self-realization, and generativity.
6. Social and institutional responsibility for health.

Each criterion is operationalized through measures (what is assessed) and indicators (how it is measured), using data sources and assessment tools such as questionnaires and administrative records, together with service-accessibility indicators and environmental metrics. This hierarchy closes the gap between a "high-level declaration" and management practice [3] and reinforces the resource dimension of health inherent in salutogenesis [4].

Discussion

The author-developed integral model of health does not deny the historical significance of the WHO definition; instead, it shifts the discussion of health from the domain of a normative ideal to that of viability and managerial action. Alignment among dimensions, adaptation, and recovery emerge as key mechanisms for maintaining health under changing conditions. Introducing the category of generativity makes it possible to link health not only to an individual's condition but also to the capacity of individuals and communities to sustain the continuity of life, social sustainability, and development.

Amid society's digital transformation, the integral model of health gains additional significance as a foundation for new approaches to assessing human potential and the viability of the human-environment system. Contemporary artificial intelligence, digital monitoring, and data-analytics technologies enable more dynamic assessment of adaptability, functional capacity, behavioral patterns, social interaction, and other components of health that previously remained insufficiently operationalized [6; 7].

A promising direction for the model's further development may be the use of digital verification technologies and distributed data-storage systems, including blockchain-based approaches, to assess the effects of various medical, social, educational, environmental, and governance interventions on human assets and societal viability. Under this approach, the value of interventions is determined not only by the volume of resources or number of services delivered, but also by their actual contribution to preserving, restoring, developing, and enhancing the generativity of human potential [8].

This creates opportunities to establish intersectoral health-management systems in which integrated indicators of the viability of individuals and communities can be used as criteria for evaluating the effectiveness of public policy, development programs, and investments in human capital.

At the same time, the use of AI and digital systems in health requires adherence to the principles of transparency, ethics, and the preservation of human agency [9].

Conclusions

1. The author-developed integral model of health provides a dynamic, systemic, and operationally applicable definition of health that advances the classical WHO approach.

2. The model's conceptual advantage lies in its focus on the viability, adaptation, and recovery of the human-environment system, as well as on self-realization and the generativity of life as dimensions of human potential development.

3. Operationalizing the model through criteria, measures, and indicators provides a methodological foundation for strategies, programs, and monitoring systems in communities, organizations, and public policy. It also opens prospects for using artificial intelligence, digital analytics, and blockchain-based approaches to assess the effects of various interventions on human potential and societal viability.

Integrating humanistic, intersectoral, and digital approaches creates the preconditions for developing new models of health management in which health is regarded as a strategic human asset and a key factor in social sustainability and development.

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