

# Driving Forward A Paradigm Shift in Healthcare: The Meikirch Model

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Dr Johannes Bircher



# DRIVING FORWARD A PARADIGM SHIFT IN HEALTHCARE: THE MEIKIRCH MODEL

Healthcare systems around the world are under increasing pressure as a result of depleting resources accompanied by rising demands. **Dr Johannes Bircher's** reflections on the inherent failings of modern healthcare systems have coalesced into an important proposal for a new concept of health, known as the Meikirch model. Here, we look at the potential of the Meikirch model to drive forward a critical paradigm shift in healthcare delivery.

## An Unsustainable Healthcare System

Dr Johannes Bircher has had a distinguished and notable career in medicine. Reflecting on his impressive more than 50 years of experience, Dr Bircher has concluded that healthcare systems are unfit for purpose, unable to respond adequately to the rapidly changing expectations of the public and government and the financial pressures being faced at every level of administration. He notes that healthcare costs are spiralling, but conversely, financial constraints are requiring healthcare managers to make significant cuts in services and staffing, a scenario he describes as 'unsustainable'.

## The Meikirch Model

In his analysis of the current state of healthcare, Dr Bircher has identified the core problem as being focussed on the concepts of health versus a medical system focussed largely on disease and illness.

To articulate and propagate his ideas, Dr Bircher has collaboratively developed the Meikirch model, with co-authors Dr Shyama Kuruvilla and Dr Eckhart Hahn.

The model presents a new conceptual framework for our understanding of health and disease, and a resulting paradigm shift for healthcare systems, that will be required if our healthcare systems are to become sustainable and more effective. Dr Bircher describes the Meikirch model as, 'not only a unifying theoretical framework for health and disease but also a scaffold for the practice of medicine and public health'.

## A New Framework for Understanding Health

At its core, the Meikirch model proposes 'health' to be a person's capacity to fulfil the demands of life within the context of their social and environmental circumstances.

Each individual receives the 'gift' of a 'biologically given potential' at birth, although, to a large degree, this is a lottery of fate. Our genetic make-up and time in the womb may impact positively or negatively on this potential. Once born, our biologically given potential is finite and diminishes over time until our death.



The demands of life change from birth to old age. As new-born babies, we are completely dependent on others for care, but as we grow, our resources to cope with the demands of life grow with us. We acquire skills, knowledge and attitudes to (generally) cope with the situations we face, although disease and external factors that are outside of our control may mean that we require additional support. As we near old age, we again become more dependent on external care, as the demands of ageing and illness overwhelm our coping capacity.

In balance with our biologically given potential, the Meikirch model proposes that we also develop a 'personally acquired potential' as we mature. This may be conceived as the life-skills, personality development, behaviours and attitudes we learn, adapt and utilise to maintain a 'healthy' life and to cope with the demands that life throws at us. The model envisages that 'personally

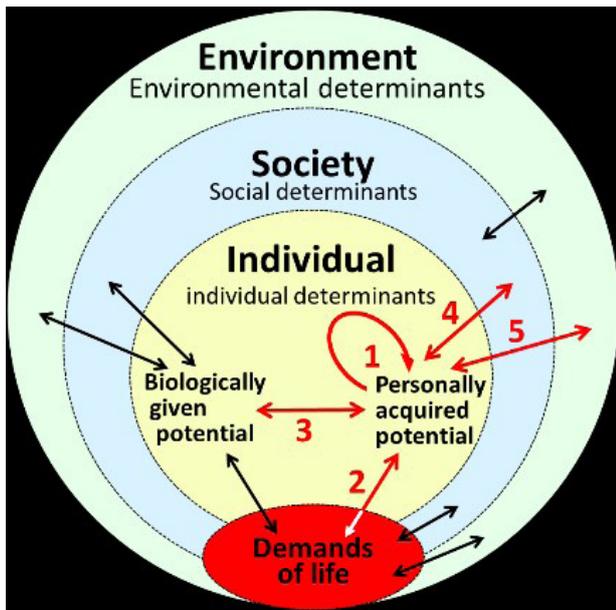


Figure 1. Schematic representation of the Meikirch-model (taken from the first reference on the meet the researcher page) The red numbers in the figure represent the five spheres of personal responsibility for health as explained below.

1. Responsibility for inner development or maturation: Meditation, group therapy, retreats, psychotherapy, and so on.
2. Responsibility to make sure that the demands of life are appropriate, not excessive but also not too little. They should be challenging in a measure that is right for the person.
3. Responsibility for the biologically given potential, i.e., for the physical body. Too many people are overweight, drink too much alcohol or are still smoking. A balanced diet and physical exercise are important.
4. The society is the sum of humans who deal with a person, starting with the mother, then the family and then the society. Each person should participate and live in a culture of love and forgiveness and support for other persons. This has to be cultured during the whole life. Children should be allowed to grow up free from overpowering but with support to develop their personal skills and capacities.
5. The responsibility for the environment is much in the news but is not realised by all (people with large cars, for example).

acquired potential' generally grows as biological potential recedes.

The Meikirch model describes our potential for health as the sum of our biologically given and personally acquired potentials. The contribution of each potential alters throughout the life-course for every individual, and any response to an

adverse health event will involve both potentials. However, where an individual adopts a self-damaging behaviour, such as through alcohol or drugs, then their personally acquired potential that may have already been reduced will be diminished further by the inappropriate behaviour, finally reducing their ability to cope with the life demands that subsequently occur.

### The Implications for Healthcare

When developing the Meikirch model, Dr Bircher sought to carefully consider the implications of the model on healthcare systems and practice, based on the fundamental ideas that underpin it.

Primarily, the model questions the dominant role of traditional, disease-focused medicine as the most sustainable approach to improving an individual's health. Public health and health promotion practitioners see health within a holistic context, where the addressing of environmental and social determinants of health are perceived as essential elements in improving an individual's health. The Meikirch model acknowledges these contextual factors as important influences in one's health potential and describes the model as a 'complex adaptive system', a matrix of interconnected influences (demonstrated by the arrows in the model's graphic representation – see Figure 1).

These contextual factors, however, are often neglected in traditional illness-focussed medicine, where the individual's disease is treated in isolation from their personally acquired potentials, and how these might resist or assist their recovery to health. Remembering that 'health' here is defined as the ability to cope with life's demands, that may mean that the person may be able to live adequately with a disease or long-term condition (e.g., diabetes mellitus) and be considered 'healthy', if supported to increase their necessary personally acquired potential to do so. In practice, this may mean additional psychological or emotional support, assisted living adaptations, or improved financial support to cope with the loss of income, and so on.

Dr Bircher believes that using the Meikirch model can be an effective way to reframe the common goals of the various healthcare disciplines and professions. He notes that healthcare practitioners often have differing views of what constitutes a 'health' outcome, which can result in a conflict of interest, a fight for resources and ineffective coordination. He further states, 'It is our hypothesis that the Meikirch model offers much more precise objectives for the division of labour in the interest of a joint purpose...The Meikirch model will thus allow a more rational exchange of opinions about every problem, possibly leading to better solutions and resulting in significantly improved cooperation.'

Dr Bircher emphasises the need for a shift to a person-centred healthcare system and away from the value-based payment-driven healthcare systems that dominate most of the Western world, with purely materialistic business-driven values at their heart. He argues that this approach undervalues and neglects integrative medicine and lifestyle improvement approaches and is inadequate to address the patient's personally acquired potentials.

### **The Consequences for Health Promotion**

Another fundamental aspect of the Meikirch model is the recognition that, through the concept of the personally acquired potential, the individual must take greater responsibility for their own health and maximise this wherever possible.

Dr Bircher uses the example of self-care in type 1 diabetes, where a person can be trained and motivated to monitor their own blood glucose, inject insulin, maintain an appropriate diet and take adequate physical activity to improve and maintain their future health.

Responsibility for one's own health also extends to more holistic approaches. For example, the personally acquired potential can be enhanced through mind-body approaches such as meditation and mindfulness, which have been shown to be effective preventative treatments for many chronic conditions such as migraine and different pains, alongside medical or pharmacological treatments, but also increase general well-being and longevity.

By expanding social and environmental support to utilise self-treatment options, there is great potential not only to improve people's health but also reduce healthcare costs considerably, by reducing reliance on expensive medical treatment that often may be no more effective than non-medical therapies.

### **The Model in Practice**

The Meikirch model has been put into practice in a small project led by Sarangadhar Samal of the National Youth Service Action and Social Development Research Institut Nysasdri in Bhubaneswar, India.

In 2013, Sarangadhar was involved in social work with tribal villagers to improve their lives and health. Dr Bircher developed a manual for the Meikirch model which was translated into Orio, the local language, for use in 40 'test' villages. The villagers learned about the new definition of health with the focus on self-responsibility (a new approach for the region) and identified the demands on their lives and the resources available locally to deal with these in the present and future. The project assessed whether the model would influence the villager's health behaviour in comparison to neighbouring control villages.

Issues identified as 'demands on life' by the villagers included eating a balanced diet, adequate housing to protect from the rainy season and wild animals, good hygiene, child vaccination, sexual disease prevention, maintaining a happy family life, avoiding superstition and irrational beliefs, and good communication within and among other villages.

After 30 months, the project showed significant improvements in health-related behaviour, although it was acknowledged that it could still be improved further. The practical effects of teaching the Meikirch model included improved outcomes on household nutrition, the wearing of slippers in latrines, washing hands before meals, childhood vaccination, use of mosquito nets, good attention to childcare and the number of household latrines.

### **Future Implications**

For a paradigm shift in practice and beliefs to occur, it can take many years before it becomes an established norm. For the Meikirch model, Dr Bircher notes that it has taken 20 years for it to become established and discussed as a viable way forward.

The model fits well with new 'omics' technologies (e.g., genomics, epigenomics, proteomics) which, in the future, will enable highly personalised analysis of an individual's genetics, cause of disease or illness and their best, specific treatment options. In this way, an individual's biologically given potential can be assessed and boosted as part of an integrated package of medical and public health measures.

The model also has the potential to dramatically change the patient-doctor relationship. Greater self-responsibility for one's own health removes the 'benevolent paternalism' that defines the present relationship, and doctors will need to become empathetic partners to support and broker therapy for the patient to improve their personally acquired potential. In doing so, Dr Bircher believes this will break down some of the more irrational therapies of alternative and complementary medicine. In contrast, it will strengthen personal and emotional development.

The Meikirch model, as a new conceptual framework of health, impacts upon many aspects of medicine and public health. Its ramifications for change are enormous and while far from easy to implement, could address many failings of current healthcare systems and let them into a better future. The focus on a patient-centred and holistic approach embedded into their specific social and environmental circumstances results in a highly appealing model that now should be urgently tested.



# Meet the researcher

**Dr Johannes Bircher**

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Born in 1933, Dr Johannes Bircher studied medicine at the Universities of Lausanne, Switzerland, Munich, Germany and Zürich, Switzerland. His professional career in internal medicine continued at the Mayo Clinic in Rochester, USA, and the University Hospital in Zürich. From 1975 to 1989 he was Associate Professor at the University of Bern, Switzerland and Full Professor at the University of Göttingen, Germany, both in the Department of Clinical Pharmacology. He concluded his formal career as the Dean of the Medical School of the University of Witten/Herdecke, Germany and as the Director of Medical Services at the University Hospital in Bern, Switzerland. Dr Bircher is known as an author and editor in scientific medical literature and is an Honorary Member of the Swiss Academy of Medical Sciences.

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## FURTHER READING

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