

Enable healthy living

Opportunities in the area of personal wellbeing

This set of papers serves as the starting point for innovation in the area of personal wellbeing. Together, these papers provide insight into the most important socio-cultural changes, knowledge on the rise of new diseases, and the developments in healthcare. Furthermore, the papers offer innovation strategies to address the growing demand for personalized solutions in the area of wellbeing. The content of the papers is based on research and design projects from Philips Design in corporation with different partners. Philips Designs research activities range from people research, short- and long-term trend research, socio-cultural research, foresight and design research and exploration.



Our view on enabling healthy living is described in the following papers, focusing on the influence of lifestyle choices and the effect of transitions in life on wellbeing.

The influence of lifestyle choices on wellbeing is described in two papers:

Living in Balance: A new approach to nutrition and activity

“Did you ever try to take on healthier habits?”

Tuning your Body: Tackling stress and sleep problems in a more natural way

“How to keep a good quality of sleep when there is no way to keep the required routines?”

The effect of transitions in life on wellbeing is described in the following paper:

Living independently: Supporting the transitions between receiving medical care and resuming a healthy lifestyle

“Can you imagine living a normal life while having cardiovascular disease from the age of 38?”

These papers [1] [2] [3] focus on people’s personal wellbeing, the areas close to people’s behavior and choices (Figure 1). Although it is important to have an understanding of the external influencers on people’s wellbeing, such as pollution, care systems and social changes, our focus is on enabling people - end user, care receiver, (informal) care giver - to address the negative influences on their physical and mental wellbeing related to their lifestyles choices and their transitions in lives.

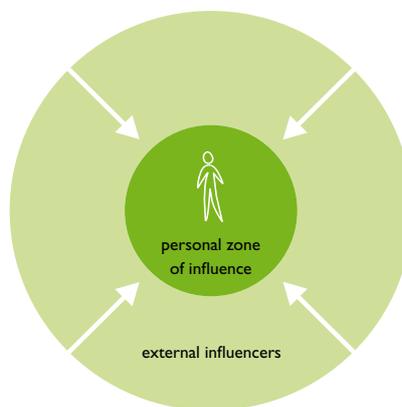


Figure 1: Influence zones impacting the individual in their health management

Changing wellbeing landscape

In these papers we sketch a number of changes and their impact on the personal wellbeing landscape.

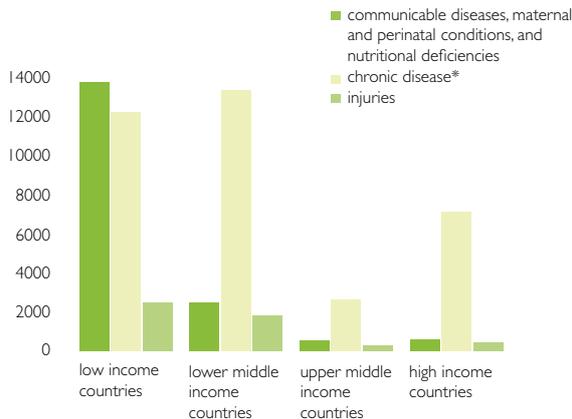
Changing societies

Our societies are ageing and have become more knowledge and convenience driven. Worldwide, lifestyles are changing. But despite these changes, our societies' values still reflect the industrial age with productiveness and effectiveness as key drivers; as a result people are less physically active, have more stress, unhealthy nutrition patterns and less sleep.

Rise of chronic diseases

From a projected total of 58 million deaths from all causes in 2005, it is estimated that chronic diseases will account for 35 million, which is double the number of deaths from all infectious diseases (including HIV/AIDS, tuberculosis and malaria), maternal and perinatal conditions, and nutritional deficiencies combined. [4]

Projected deaths by major cause and World Bank income group, all ages, 2005



*chronic diseases include cardiovascular diseases, cancers, chronic respiratory disorders, diabetes, neuropsychiatric and sense organ disorders, musculoskeletal oral disorders, digestive diseases, genito-urinary diseases, congenital abnormalities and skin diseases.

Figure 2: Chronic disease as one of the biggest major cause of death

In contrary to the common beliefs, chronic disease does not only occur among elderly people in rich countries: 80 % of deaths from chronic disease occur in low and middle income countries and these deaths occur in equal numbers among men and women. [4]

Projected foregone national income due to heart disease, stroke and diabetes in selected countries, 2005-2015

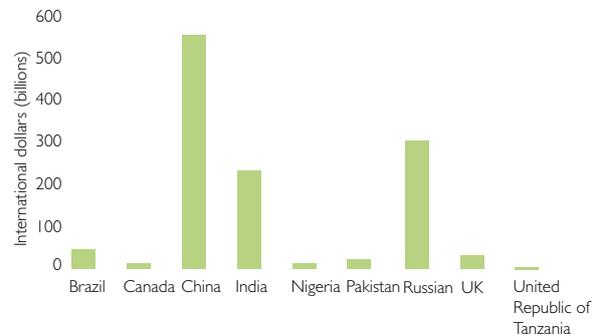


Figure 3: Economic effect of chronic diseases

Chronic disease has major adverse effects on the quality of life of affected individuals and has large economic effects on families, communities and societies in general.

Growing gap between offer and demand

Healthcare industry is growing rapidly but cannot keep up. Healthcare cost is estimated to consume on average 10% of the Gross Domestic Product (GDP) of most developed nations. In Western European countries costs raised from 4% of GDP in 1960 to 11.5% of their GDP nowadays. [5]

For companies such as Philips, there is an opportunity in the growing need for more personal long term solutions that empower people to change their lifestyles, and tackle their disease in the home environment. We distinguish two main differentiators:

1. The influence of lifestyle and modifiable risk factors on personal health and wellbeing.
2. The influence of transitions in peoples lives on the demand for care.

The influence of lifestyle choices on wellbeing

People lifestyles, the choices people make in their daily lives, can negatively influence their health and wellbeing. There are modifiable lifestyle risk factors that contribute to the growing onset of chronic diseases: Stress, lack of sleep, wrong nutrition and lack of activity. These risk factors explain the vast majority of chronic disease deaths at all ages, in men and women, and in all parts of the world. [4] Each year at least:

- 2.6 million people die as a result of being overweight or obese;
- 4.4 million people die as a result of raised total cholesterol levels;
- 7.1 million people die as a result of raised blood pressure.

The question arises as to why people don't comply, especially if less stress, good sleep, healthy diet and enough activity could increase their quality of life.

There are three dilemmas that keep people from changing their lifestyle towards a healthy one.

1. To stay healthy, we need to reduce stress, and get enough good sleep. People require a routine and time to reflect and energize. Yet our hectic lives no longer offer us time to do so and we also believe that improvements require drastic changes in the way we live now.
2. Related to activity the dilemma lies in the fact that people exercise less and less; it has become an add-on in people's life and needs to become part of daily routines again.
3. Healthy food is either seen as being less tasty or lacking in instant energy gratification, which does not contribute to a desired food experience of people.

Stages of change

To adopt a new lifestyle, people go through different stages with different needs: from getting relevant information, to an easy starter, to something that helps them to keep going. This calls for sustainable empowering solutions that address all phase in peoples lifestyle change.

Enablers

The only way to help people to adopt healthier lifestyles in time, without disrupting their lives, both on the short and the long term is by offering three key enablers: motivation, education and natural tuning.

The effect of transition in life on wellbeing

There is a dilemma rising: The rises in chronic diseases and the general ageing of the population, show the need for the integration of lifestyle-driven, long term care into daily life to enable the continuation of independent living.

People's lives are not static. Transitions in lives related to ageing and health events will occur naturally. For people to

stay independent it is important that transitions go smoothly. However, there can be obstacles that make transitions hard to take. Obstacles can be physical like breaking a hip or having a cardio-vascular condition, mental such as dementia and social such as losing your partner.

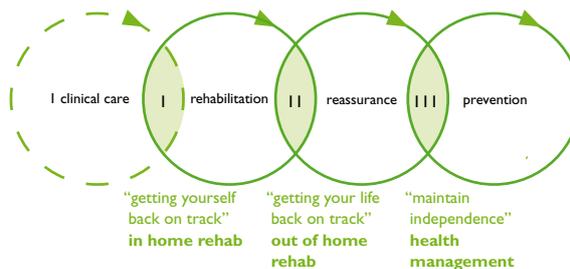


Figure 4: Healthcare stages and its transitional points of care

Currently care systems show a gap in the support throughout healthcare stages as shown in figure 4. This underpins the need for empowering holistic solutions.

Change in care demand

As these transitions are part of daily life, care needs to extend its reach into peoples homes, and their every day context. This way people are enabled to make these changes and medical costs and work pressure can be reduced. There are two crucial enablers in achieving this:

Enablers

Life driven care: Care should become more holistic, supporting multidisciplinary care from the hospital to the home environment. Care should become life-driven, rather than crisis-driven. When acted upon in time, serious and expensive health events can be reduced and even prevented. To have a good quality of life, also smaller but daily needs are to be taken care of, in order to be reassured and to remain independent.

Boundary stretching care: People need to learn to live with disabilities and new abilities to rediscover their lives if they want to stay independent and, more importantly, want to have quality of life. Enabling this calls for empowerment: offering a reassuring situation in which flexibility, daily routines and experimentation are possible.

How to enable healthy living?

To achieve personal wellbeing, people need to be able to understand their condition and to start and continue lifestyle changes. Many people can't do this by themselves and can use support. Here lie the opportunities for industry, service providers, technology and design.

A system approach is needed to support all stakeholders in all phases in a holistic way. Solutions need to be adjustable to the needs of users in different stages of lifestyle changes and health transition. These needs range from access to relevant information to start, tracking and monitoring devices to take action and stay motivated as well as communication platforms to have contact with relevant stakeholders.

This system approach requires involvement of multiple disciplines. Philips Design is specialized in understanding and integrating different disciplines; from researching and understanding people's needs, to having access to latest and appropriate technologies to the translation into meaningful solutions for all stakeholders involved; from patient to informal and formal caregivers to industry providers. Each and every stakeholder can only cover part of the problem. System solutions can not be developed by Philips Design alone. Partnerships and collaborations are required. By teaming up we can enable each other, enlarge our opportunity space and come to sustainable enabling solutions.

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