***Discussion***

In the not-so-recent article (July 2011) by Huber et al., entitled "Health: How Should We Define It?" the authors present some interesting alternatives to the WHO definition of health. They argue that health is more an ability to "adapt and self-manage" than a state of "complete physical, mental and social well-being." Such an alternative conceptual framework is useful because it makes the health care system more realistic in terms of spending money on states of ill-health, among other reasons.

Wisely, Huber et al. do not try to overturn the old WHO definition, which was established in 1946. That definition is figuratively set in concrete. This attempt to redefine health is useful because it reminds us that health is something which is felt internally, as well as being something that others assess externally in clinical settings. We have "social assessment" of our health by health professionals, family members and friends, and then we have the "self assessment" of health, which is defined by how we "feel" and look to ourselves. There will always be some agreement between these two ways of defining our health, but often there will be important differences which affect whether or not we seek professional help. As we age, we may be plagued with a whole variety of minor complaints, but if we feel good, and are able to function without much pain, there is no reason to see a doctor. "Social assessment" may creep into our perception of health, but ultimately the "self assessment" will trump anything but overwhelming pressure from others to seek help. Ultimately, health should be defined, even by the WHO, to include these two elements

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Huber and colleagues bring needed attention to the WHO definition of health. Their suggestions are to move the definition toward adaptation and self-management in the face of challenges. (1) However, since challenges to be faced in life can never be known until they occur, their suggestion would encourage reactive instead of proactive actions by individuals and professionals. This author suggests it is necessary to define health, as WHO has done, in a way that inspires the desire to improve physical, mental and social well-being for its own sake. By doing this, abilities to adapt and self-manage are improved as a better life is created. (2-5)

Improved health provides an opportunity to manifest a better life. Health is a dynamic, not static state that one must work to continuously generate. Health is not something that can be achieved by reacting to current circumstances. The WHO definition provides an ideal state to work toward by defining health as a state of complete physical, mental and social well-being and not merely the absence of disease and infirmity (6).

Humans have a unique, innate ability and desire to adapt and continually improve their state of well-being. Health is not as much an end point as it is an enabling capacity to facilitate progress toward a desired life. Huber and colleagues’ commentary suggests that the WHO definition would consider most individuals to be unhealthy or definitively ill most of the time and that this would then lead to the undesired outcome of increased medicalization. (1) This interpretation is correct if health is understood to be the absence of disease and infirmity and not as the presence of well-being.

WHO explains that health is the PRESENCE of physical, mental and social well-being and not merely the ABSENCE of disease and infirmity. (6) Only conscious action can create these desired states of well-being. Seeing health as the absence of disease and infirmity is narrow and incomplete. Instead of defining health as a higher state to be created and continually achieved, Huber and colleagues suggested redefinition would seem to encourage a return to a predetermined baseline instead of a move toward a higher state of well-being. Putting a focus on the precursors to achievement, accomplishment and thriving, something required with the current definition, inspires action to enhance physical, mental, and social well-being.

Though we are pulled to the status quo or maintenance by the endowment effect, (7) it does not inspire. Furthermore, passive reactionary stances and maintenance of the status quo through "…the ability to adapt and to self-manage" would be encouraged if this redefinition were accepted. Accomplishment and achievement of one’s desires, on the other hand, inspires action. The current WHO definition inspires action to create a dynamic and improving state of health that can be measured by determining engagement in health promoting actions. Results document that the more people engage in health promoting actions, the greater their well-being, satisfaction, and performance and the lower their incidence of symptoms and problems associated with disease and infirmity because of a better ability to adapt and self-manage in the face of challenges. (8,9)

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The definition of health as the "ability to adapt and to self manage" is an important step toward a full comprehension of health and disease. In fact, the question about the nature of health is overwhelming. To answer it, we have to ask: When do we not feel healthy? We can easily answer: When we cannot do something that we used to or something that people commonly do. For instance, when we can no longer run as swiftly as we used to, or when a disease inhibits eating food that people commonly eat. To drink, to walk, to eat ice cream, to read a good book; to restore breathing if our nose is obstructed, to restore sight if we are blind or to kill pain if we have a headache - to be healthy is to realize this. The awareness that our desires are being realized is what we call well-being: in other words, the awareness of health. It is important to affirm that, even in the case of chronic diseases, health is possible, first because many disabled people show how to be healthy despite their disability (e.g. Paralympic champions or world famous blind singers such as Andrea Bocelli or Ray Charles); second, because precluding disabled people from health to is relegating them to a second-class personhood.

The only flaw I see in this paper's definition of health is that it highlights only the active aspect of an healthy person, while even when dependent on others a human being maintains his/her dignity and therefore his/her possibility of health: the opposite of health is not the lack of autonomy, but the lack of hope.

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The proposed new definition for health risks further blurring of the
health - disease transitions and possibly would lead to an oxymoronic
state of 'healthy disease'. Would a single mum in a poor country working
during her bout of flu be termed healthy since she is able to adapt and
self manage whereas a young adult in a rich country who is 'off sick from
work' with flu might be termed as unhealthy.(1).

The general public would define health as absence of disease. The
problem lies with definition of diseases not with definition of health.
Ever expanding pre-disease categories and risk factors are increasingly
viewed as physical disease. (2). 'Normal life events' are increasingly
categorised as mental health problems. (3).

The availability of rapid genome wide sequencing might detect low
penetrant disease risk genes in practically most of us and this
potentially can put most of us in some pre-disease categories.(4).

Hence there is an urgent need to define disease before we define
health. Otherwise concept of 'health' risks becoming a philosophical
concept discussed along with 'meaning of life'!

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As a participant at the international conference referred to in the
above paper (my contributions to these debates is acknowledged by the
authors) I would like to make three comments on the ideas they present.

1. The authors fail to appreciate what for many is the key strength of the
WHO definition which paradoxically is a weakness of the approach they are
proposing. The WHO definition is 'aspirational' aiming to guide national
and global health governance not to provide a conceptual framework for
operationalising 'health' in a narrow technical sense.

2. The WHO definition was the product of an inclusive dialogue involving
'lay' and professional/medical experts. If there is to be a change in
the way that international health governance agencies define health then
it surely is not acceptable in the 21st century for this to be done
without wide-ranging engagement beyond the esoteric world of academia and
the pragmatic world of policy. Civil society should have a voice.

3. The authors' new definition of 'health' places undue emphasis on
individuals and their "ability to adapt and to self manage" irrespective
of their context. If one accepts that it is worthwhile to pursue a new
definition amenable to operationalisation - and I am not convinced of this
- then this process needs to attend to the implications of the burgeoning
literatures on:

a. the complex concepts of capability, capacity and resilience where
research points to the importance of conceptualising these as
characteristics of the relationship between individuals and the socio-political systems in which they are embedded (or even as characteristics
of these systems themselves) rather than as located with individuals.

b. The role of collective social dynamics and/or relationships in the
genesis, promotion, management and sustainability of health, wellbeing and
functioning

c. Lay/patient generated measures of health and health outcomes (e.g
patient reported outcome measures) which allow individuals to identify the
domains of health, wellbeing and social functioning that are important to
them.

The authors argue that the "formulation of health as the ability to
adapt and to self manage... could be a starting point for a fresh, 21st
century way of conceptualising human health and that discussion with other
stakeholders should continue. Indeed it should. I fear that the
approach proposed by Huber et. al. results in a narrowly individualistic
psycho-social definition of health. The social determinants approach,
emphasising political, economic, social and cultural pathways to health
and health inequalities provides a more appropriate 21st century framework
to underpin national and global health governance.

**Competing interests:** I participated in discussions at the workshop that the authors Huber et. al. draw on for their article.

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We certainly agree with the recommendation by Machteld Huber et al,
resulting from a recent meeting of experts at a Dutch conference, that WHO
update their definition of health and place 'emphasis towards the ability
to adapt and self manage in the face of social, physical, and emotional
challenges.'1. We appreciate the concept of 'dynamic balance between
opportunities and limitations' in the social domain.

However we are concerned that the proposed definition's emphasis on
personal and community responsibility for adaptation and self-management
denies the reality that some social determinants may preclude the ability
of individuals and communities to adapt to their circumstances.

We believe that the authors and WHO would benefit from applying a
much wider lens to the etiology of health, and therefore increase the
recommendations to support maximum health around the world. The physical,
mental, emotional and spiritual health of individuals and communities
depends on numerous general factors including political conflict and war,
literacy, education, employment, adequate housing, poverty reduction and
reducing the income gap within countries - in addition to 'good nutrition,
hygiene, sanitation and health care interventions'. This means that WHO
must partner with other international organisations with many different
mandates to promote health. It should also encourage countries to adopt
health policies that make it possible for individuals and communities to
self-manage; as has occurred with smallpox and polio prevention, iodine
supplementation and, in some jurisdictions, smoking and seatbelt usage.

We also recommend that future writings should lessen the focus on
'doctors in their daily communication with patients.' The majority of the
world receives health care from other health professionals, community
leaders, traditional healers or those with additional knowledge in health,
as well as family caregivers,

Finally, we are delighted that this article recommends involving
other stakeholders - and recommend that these should be widened past
'patients and lay members of the public' to include community leaders,
health organisations and policy makers.

1. Huber M, Knottnerus JA, Green LW et al. How should we define
health?
BMJ 2011;343:d4163

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Re: How should we define health? Huber et al. BMJ 2011;343:d4163

Huber et al. have proposed to reformulate health as the ability to
adapt and self manage. We support the new definition of health with
arguments from the fields of occupational health and positive psychology.
However, the question is whether or not our health system is able to
broaden its scope and get less problem orientated?

As science and technology advance Huber et al. argument that patients
with diseases should be helped to adapt and to self manage with their
physical, mental and social health. We favor this view from our
experiences in the field of occupational health. In the Netherlands
occupational physicians not only explore the medical status, but also the
disease cognitions, contextual work factors and private life of employees.
This helps employees and employers to cope with disease and impairments.
One of the key findings is that functioning helps employees to recover
from illness, whereas postponing return to work results in reduced health
(1). Employees who have difficulties to adapt and manage their diseases
and health complaints have high rates of sickness absence, which is of
major importance for society (2). Our impression is that employers and the
health care system can do more to help employees with chronic illness (3).

Physicians are trained to recognize symptoms of disease and health
risks. From the health perspective, it would be worthwhile to pay
attention to what makes people healthy. Salutogenesis is the term for
studies (4) how people stay well. However, this approach is not very
popular in medicine. The same is true for the field of positive
psychology. The traditional focus of psychology is on people's weaknesses
and malfunctioning, whereas positive psychology proposes a shift towards
human strengths and optimal functioning (5). The healthcare system and
science are mainly focused on negative prognostic factors. An example of
the contrary is that optimism protects against cardiovascular death (6).
Another example is engagement; regarding health this is a remarkable
determinant of mental health: it protects against burnout and contributes
to well being and productivity (7) and is therefore of importance for
society. If salutogenesis, optimism and engagement have such health
benefits, why not giving positive states a greater role in our health care
system?

In the physical, mental and social dimensions of health mentioned by
Huber al., we miss the spiritual aspect. They mentioned 'sense of
coherence' as a factor for successful coping, which includes enhancing,
comprehensibility, manageability and meaningfulness of a stressful
situation. This should be worked out. There are studies (8) which show
that spirituality, seen in its broad meaning and overlapping with positive
psychology, contributes to a sense of mastery and to physical and mental
health. Japanese studies (9,10) state that 'ikigai', a Japanese concept
meaning something worth living for, contributes to reduced risk of all-
cause and cardiovascular death.

Of great importance in developing and implementing this vision, is
the ability of the health care system and health care professionals to
adapt their clinical outlook. Our difficulties in helping patients with
medically unexplained physical symptoms (MUPS), which can only be
understood in biopsychosocial context, shows how difficult it is to
broaden our scope (11). Evidence (12) from the treatment of patients with
longstanding MUPS shows that these patients want to be taken seriously,
explanations they understand and this asks other competences, longer but
less frequent consultations and that this will result in less medical
consumption and better functioning.

To conclude, we acclaim that health should be seen as a ability of
patients to self manage disease within their social context, rather than
being free of disease or complaints.

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While the response(1) of Shilton et al from the International Union
for Health Promotion and Education is correct in pointing out that health
is a social product rather than an individual attribute, their proposed
definition is unhelpful - its final part is a tautology, which makes the
meaningless claim that 'Health is created when... (people's) needs and
rights are supported by systems... conducive to better health'. Like the
WHO Commission on Social Determinants of Health(2), they also fail to
point out that the inequity which as they say, rations global access to
health, is a systematic product of the neoliberal capitalism which so
dominates global public policies and international relations. We must
engage with these realities if we wish to create better health in the
world.

I would propose instead a (thus far unpublished) definition of health
coined in 1996 by Jane Wills, Nigel Watson and myself: 'Health is a
condition in which people achieve control over their lives due to the
equitable distribution of power and resources. Health is thus a collective
value; my health cannot be at the expense of others, nor through the
excessive use of natural resources.' This definition is more in keeping
with the WHO's prerequisites for health for all(3) - equal opportunities
for all, satisfaction of basic needs (adequate food and income, basic
education, safe water and sanitation, decent housing, secure work, a
satisfying role in society), peace and freedom from fear of war - and with
current perspectives on sustainability.

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The meaning of health
Trevor Shilton, Michael Sparks, David McQueen, Marie-Claude Lamarre,
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(On behalf of the Executive Committee of the International Union for
Health Promotion and Education - IUHPE).

Your article by Huber et al (26 July, 2011); BMJ 2011; 343: d4163,
quite properly challenges the validity, in the 21st century context, of
the WHO definition of health. For the health promotion movement this
consideration is particularly pertinent in the year of the 60th
anniversary of the founding of the International Union for Health
Promotion and Education). The IUHPE is pleased to be able to contribute
to the ongoing global conversation on a new definition of health.

A challenge for any new definition of health is to be broad enough to
have appeal across sectors, yet not so broad as to become meaningless or
unachievable. The meaning of health proposed in the Huber et al article
promotes health as a reactive capacity where a threat to health is
present. We agree that adaptation and self-management are important
qualities for individuals to have when faced with ill health but our
definition of health extends beyond the concept of health as a reactive
capacity to include concepts of health being both a human right protected
by certain entitlements, and health as a resource for life that is
affected by social, political, economic and environmental factors.

Public Health has always worked on the premise that changes to these
types of environment result in greater health gains than any individual
action. Indeed, our ability to 'adapt and self-manage' is applicable only
in circumstances that are within our control. Because of inequities, many
of the contemporary problems that are the drivers of ill health in low and
middle income countries are outside the control of the dispossessed, the
poor and the disenfranchised. While we can see the therapeutic approach in
which adaptation and self-management are desirable, particularly in
wealthy developed countries, we fail to see how this approach offers
significant hope to less advantaged populations. Any definition of health
must therefore recognise the impact of this fundamental and growing
inequity.

To make meaningful differences for those that need them most, we need
systems approaches to policy, legislation and environments - not just
individual approaches to behaviours. We agree that a fundamental change in
addressing health is required, but such change needs to consider
underlying determinants that are less amenable to self-management, and
consider change to policies and environments. This is the purview of
policy decision makers rather than consumers and individuals.

An alternative definition:
Health is created when individuals, families and communities are afforded
the income, education and power to have control over their lives; and
their needs and rights are supported by systems, environments and policies
that are enabling and conducive to better health.

We draw your attention to a document from the International Union for
Health Promotion and Education (IUHPE) that outlines seven actions that
advance health promotion approaches to NCDs. We are pleased to attach a
link to this document:

[http://www.iuhpe.org/uploaded/Activities/Advocacy/IUHPE\_KeyMessagesNCDs\_...](http://www.iuhpe.org/uploaded/Activities/Advocacy/IUHPE_KeyMessagesNCDs_WEB.pdf)

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Michael Sparks, David McQueen, Marie-Claude Lamarre, Suzanne Jackson

International Union for Health Promotion and Education

There is a colossal omission in Huber et al's discussion of
redefining health, which they allude to and then skate over at the end of
their article . "Just as environmental scientists describe the health of
the earth as the capacity of a complex system to maintain a stable
environment within a relatively narrow range, we propose the formulation
of health as the ability to adapt and self manage". Indeed....But where
is the recognition that the Earth is our only home, and the ultimate
source of everything that helps us maintain our health? As fish stocks
dwindle, the human population continues to expand beyond the carrying
capacity of the planet, aquifers dry up, and climate change disrupts the
weather cycles on which we have come to depend for food production, we are
showing ourselves to be singularly incapable of looking after our
irreplaceable life-support system.

A short term 'definition of health' which fails to include any
reference to our ability as a species to consider our own prospects for
long term survival , seems to me a worrying symptom of the denial, focus
on 'business as usual' and inability to consider the imperative for
radical behavioural changes, which are responsible for the profoundly
worrying predicament in which we and most other higher forms of life on
Earth now find ourselves. A new definition of health feels like a sterile
academic exercise when the obvious threats to health of famine,
pestilence, war ,and the immediate effects of climate change are now so
clearly
what should really concern us.

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The fairly recent biological concept of "complex adaptive systems" (as summarised in the Institute of Health's "Crossing the Quality Chasm", published in 2001. ISBN 0-309-07280-8) provides an excellent basis for an updated understanding of health.

All organisms can be considered as "complex adaptive systems", human beings included. Such systems have distinct characteristics, probably the most fundamental of which is the capacity to adapt. However, it would be limiting to equate adaptive processes to homeostasis. There are many homeostatic mechanisms in living organisms, but other characteristics include the non-linearity of the connections between the parts and the systems, which produces novel and emergent behaviours; a tendency for the system to move to "far from equilibrium" positions which stimulates phase changes and growth; and embeddedness within the organisms environment.

This means that both growth and relationships are key features of health.

Maturana and Varela coined the word "autopoeisis", (<http://en.wikipedia.org/wiki/Autopoiesis>) sometimes translated as "self-making capacity" and this is perhaps a broader and more useful one than "self-management".

I find the acronym "ACE" helpful as a definition of health.

A = adaptive capacity (physical and psychological coping)

C = creativity (growth and development)

E = engagement (interactions with others and with the environment).

<http://heroesnotzombies.wordpress.com/adapt-create-engage/>

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