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PUBLIC HEALTH: A PARADIGM SHIFT

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PUBLIC HEALTH: A PARADIGM SHIFT

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Introduction

To start with it would be important to mention that there is a difference between 'health care' and 'public health'. Public health involves the protection against illness while health care involves the care and treatment of illness through clinical and diagnostic systems.

We find an example of public health practice in the Old Testament. Moses formulated laws to be honoured by the Israelites while on their way through the desert to the Promised Land: Deuteronomy 23:9-14; uncleanness in the camp. "Designate a place outside the camp where you can go to relieve yourself. As part of your equipment have something to dig with, and when you relieve yourself, dig a hole and cover up your excrement" (:12-13). Healthy outcomes through the process of health promotion were obtained through law enforcement in the welfare of a nation.

An example of health care practice can be found in the New Testament as well. Jesus told the well-known story of the Good Samaritan to his followers in Luke 10:25-37.

Public health: what does the history tell us?

Although public health was only defined in 1920, it was not a 'new' field. Through the ages Man was kept busy with the motion of preventing disease and deaths at a young age. As it happened the primary vision of public health was focused around finding solutions to prevent illness and deaths resulting from infections and pests. It was guided by the diseases of that time such as leprosy, pocks, small pocks, black pest/death of the 14th century in Europe, polio, measles, and the like.

As many certainly before him, Charles-Edward Amory Winslow started his career as bacteriologist in the early 20th century at Yale University in America. Soon he distinguished himself as a leader in the field of public health and posed the first definition on the 9th of November 1920 in "The Untilled Fields of Public Health" as "the science and art of preventing disease, prolonging life and promoting health through organised efforts and informed choices of society, organisations (public and private), communities and individuals" [1,2] . Soon after starting his career Winslow broadened his focus from bacteria causing disease to embrace occupational and environmental health, housing conditions, epidemiology, public health administration, nursing, mental health, and the organisation of medical care.

Through his vision of health and intellect he influenced many leading researchers in the field of public health such as Joseph Goldberger, who worked on the dietary deficiencies that cause pellagra. Winslow must have been a wise man. That is eminent to me in the definition he posed in 1920. This definition sets the scene for the development of the field of public health. The complexity of health is also captured in this definition and per se means that the practice of public health involves a diverse collection/array of strategies, a range of methods and efforts designed to protect individuals and communities from risk factors that can be associated with morbidity and premature mortality.
As the world turned and became more civilised, people became more educated. One of the advantages is that infectious diseases started being better controlled, especially as cleaner environments have been established and successful vaccinations administered. The main foci of public health turned away from infectious disease and more towards prevention of the new generation diseases emerging from (again) life style – a much more sophisticated life style.

This transition from infectious (communicable) diseases to the non-communicable diseases of life style brought with the first major paradigm shift in the direction of modern public health. It not only moves public health practice towards health promotion but also transfers the research environment form monodisciplinary interests to inter- and multi-disciplinary health research.

One cannot think of health promotion without referring to the Ottawa Charter where health promotion was described as "the process of enabling people to increase control over, and to improve, their health[3]. To reach a state of complete physical, mental and social well-being, an individual or group must be able to identify and to realize aspirations, to satisfy needs, and to change or cope with the environment. Health is, therefore, seen as a resource for everyday's life, not the objective of living. Health is a positive concept emphasizing social and personal resources, as well as physical capacities. Therefore, health promotion is not just the responsibility of the health sector, but goes beyond healthy life styles to well-being". To put this description of health promotion into practice, the different dimensions of the Ottawa Charter were grouped into three actions namely (1) health education (2) service improvement and (3) advocacy[4].

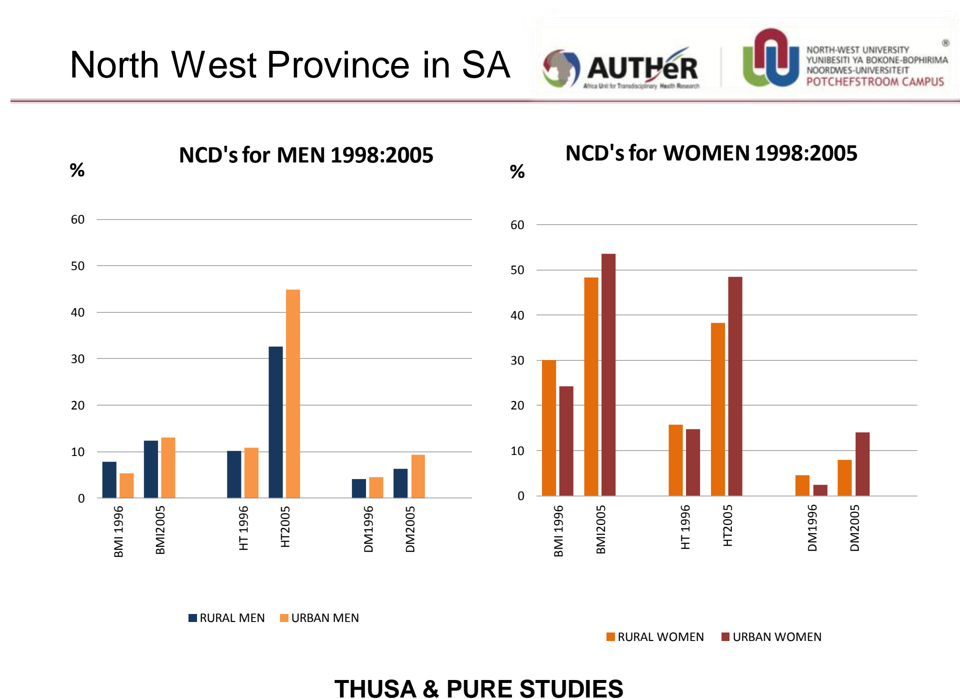
This 'new' and 'modern' way of thinking about public health (health promotion included) expanded research beyond the boundaries of mono-disciplines. Multi- and inter-disciplinary teams became the magic key to new knowledge and illness prevention. Man succeeded in fighting infectious diseases in the Western world. However, other diseases such as a number of non-communicable diseases became

increasingly of concern. In the developing world the challenges remain to address infectious diseases and over time the more and increasing prevalence also of non-communicable diseases and malnutrition.

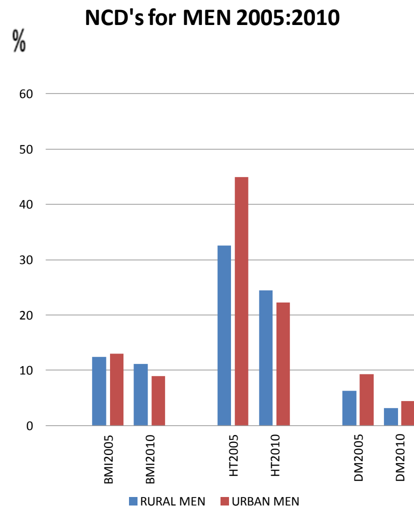
The South African Scenario

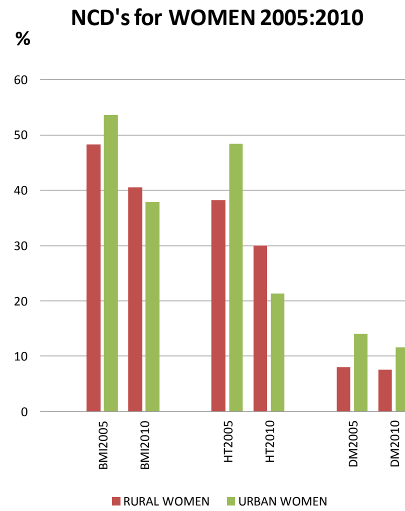
The history of South Africa created a situation of large inequalities on many levels within societies. A relatively small proportion of our population have already experienced the transition from high prevalence of infectious diseases to that of non-communicable diseases of life style. In a sense this can be used in our favour as it should enable the research and health communities in South Africa to guide the large portion of our population in this health transition in a positive direction which would imply a decrease of infectious diseases as well as no increase in NCDs.

However, when we look at the realities, data from our research at the North-West University, collected in 1998 (THUSA-study) [5] and again in 2005 and 2010 (PURE study),[6,7] imply that we did not manage to lower the risk factors for NCDs. The growing epidemic of HIV/AIDS also tells its own story. The inevitable questions that arise are: WHY? What have we been doing wrong?



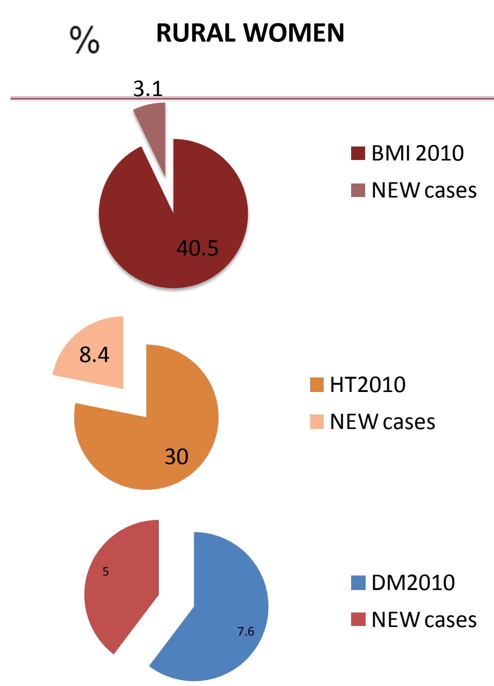
INCIDENCE of NCD's

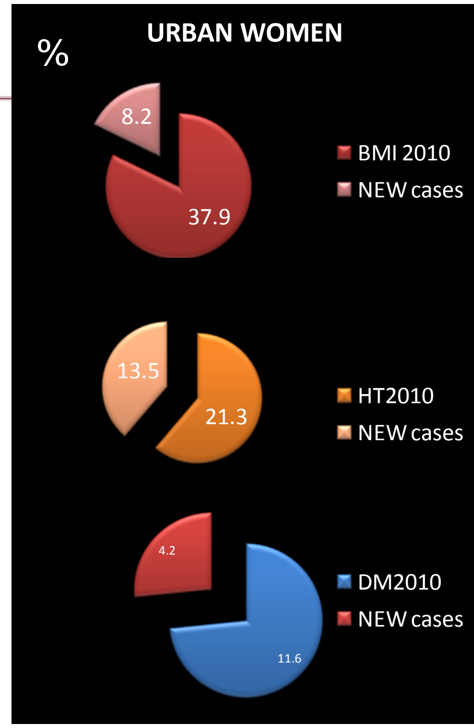


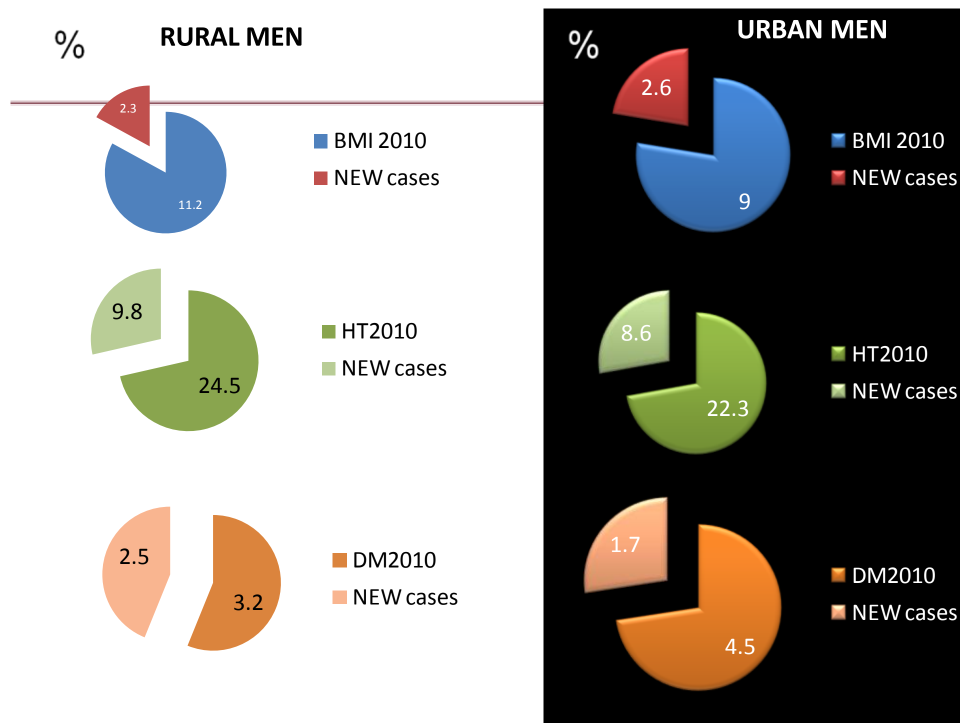


PURE STUDY

At first glance, the above figure indicated a decrease in NCD's from 2005 to 2010. However, this is longitudinal data and with further exploration the new cases diagnosed with NCD's in 2010 on the same participants as in 2005 showed a definate increase thereof.







The future: Time for another paradigm shift in public health?

Let us revisit the definition posed by Winslow in 1920. Four concepts emerge:

1. "**the science** and
2. **art of preventing** disease,
3. **prolonging life** and **promoting health** through
4. **organised efforts** and **informed choices** of society, organisations (public and private), communities and individuals"

"Therefore, health promotion is not just the responsibility of the health sector, but goes beyond healthy life styles to well-being" as stated in the Ottawa Charter (WHO 1986)[3].

In this definition and description in the Ottowa Charter, two words attract my attention, namely "ART" and "WELL-BEING". To the best of my knowledge these two concepts are lacking attention in the practice of public health and health promotion.

The present approach to health promotion emphasises the following [4]:

Health empowerment = self-efficacy + health literacy

with

self-efficacy = AFFECTIVE/COGNITIVE

health literacy = COGNITIVE/COMMUNICATION

One may well ask why such important factors as the "ART" and "WELL-BEING" are neglected to the extent of being unmentioned and unprovided for. Above all, what would be the meaning of these in the context of public health?

"WELL-BEING" is a field of study in its own right and manifests largely in the field of Fortology. Many publications are available and even published from our own research at the NWU [8-14]. A summary of my understanding thereof is: it is **a contented state of being happy and healthy and prosperous.** To me this is that part of Man that comes from inside, that leads to happiness and enhances resilience. Resilience refers to "patterns of positive adaptation in the context of significant risk or adversity" [15]. At this point I also have to refer to the World Health Organization's definition of health stating that health is **"a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity".** It is therefore no new concept, but what remains to be done in practice is to implement proper caring for and building of the "WELL-BEING" of the population.

This leaves me with the word "ART". To me, in the context of public health, it refers to the way in which people are being addressed and motivated to be mobilised towards action to take responsibility for their lives. It involves the integration of knowledge far beyond mono-disciplines. It is impossible for one person to be the "ART" factor in public health. This, to my opinion, would involve a trans-disciplinary group or team effort.

Trans-disciplinarity refers to the process where experts from different backgrounds (disciplines / fields of science / organisations) **get the opportunity to transcend separate conceptual as well as theoretical and methodological frameworks and to share their ideas** and results in order to provide knowledge towards the understanding and to alleviate public health problems and improve quality of life. The

relevance and importance of doing trans-disciplinary health research **is to understand public health problems from different perspectives integrated into a holistic approach** of problem solving.

To substantiate this opinion of mine, I would like to introduce you to the outcome of our research in the FLAGH (Farm Labour And General Health) programme, LIFEPLAN®. It has been developed by integrating community research results gathered over a period between 2001 and 2006 *i.e* seven years of dedicated research by post-graduate students from a multi-disciplinary health research team (nurses, social workers, psychology students, consumer scientists, occupational hygienists and theology students) [16-21].

The LIFEPLAN® programme addresses poverty amongst the most vulnerable through human development and training in life skills based on a value system to improve their well-being, their health, nutrition status and to give them choices. All is combined in a model where sustainability in terms of family and social support networks and structures, behavioural, hygienic and nutritional practices and financial impact can be tested [22]. Although this programme was developed and tested for outcomes in commercial farming communities, it also became evident from research that it has a broader application and capable of rendering positive results on resilience even in a corporative environment.
Examples of positive feedback indicating "WELL-BEING" of communities include the following:

- For the first time we feel we are seen as human beings
- Our families take part in the budgeting process – money lasts longer
- We take interest in each other's wellness
- Managers reported that workers took pride in their work
- Work productivity increased 2-3 fold
- People took responsibility for their health (In 2009, in a corporate situation, 22 alcoholics were facing disciplinary actions. In 2011, after several LIFEPLAN® sessions, there was none – no one was retrenched.)

In the past much emphasis has been placed on a so-called "health empowerment" approach, together with its "self-efficacy and health literacy". Results from research, as mentioned above, have proved this approach to be inadequate and too limited in the sense that the expected and very necessary conditions had not been achieved. Add to this the WHO definition of "physical, mental and social well-being" which

would mean much more than merely the “absence of disease and infirmity” and it becomes evident that the health care environment is in dire need of a change in approach - a change that has to be thought about and re-thought, considered and re-considered, discussed and implemented - and the sooner the better.

According to my views I would venture the suggestion of the following CHANGE:

Place emphasis on

SELF-EFFICACY + HEALTH LITERACY + the HUMAN RESILLIENCE factor

and

use the “ART” of a trans-disciplinary health team

to enhance public health and well-being.

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