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Editorial

Lessons from the past: integrated prevention is successful

Unhealthy lifestyles are the main cause of most chronic diseases, amongst others: smoking, too little exercise, too much alcohol consumption, too much and too fatty food, too much drugs consumption, too much stress and unsafe sexual behaviour. Prevention of these unhealthy lifestyles consists of seven elements:

1. health education to citizens at risk, for instance to adults with overweight problems and obesity;
2. the creation of a healthy environment which makes the healthy choice the easiest: for instance, a smoking ban in restaurants;
3. the creation of financial incentives in the use of preventive interventions: for instance, free of charge bi-annual overhaul visits to a dentist or primary care doctor;
4. early detection of persons at risk, for instance early detection of stress in young children due to problems in growing up and education by parents;
5. the commitment of general practitioners, medical specialists and other treating doctors to give preventive messages to their patients;
6. a repressive policy in which unhealthy behaviour is punished: for instance punishment of a car driver with a too high blood alcohol level;
7. scientific support to find out which preventive interventions and settings are effective.

Following and watching health policy in different European countries I seldom see an integrated approach. Health education is something for primary and high schools. The creation of a healthy environment is under the responsibility of a Ministry of Economic Affairs. The early detection of risk behaviour belongs to Municipal Health Authorities or Occupational Health doctors. And courts of justice have their own rules of punishment for unsafe behaviour. So this journal can't produce empirical papers showing that integrated prevention works better than a fragmented approach. Unlike medical interventions where the evidence-base for their effectiveness is a key factor in their use, the lack of empirical evidence on the benefits of integrated prevention services across government sectors is unproven. That's why barriers exist to the development of better integration of preventative care policies than result from fragmented, separate professional, governance, and from budgetary and regulatory responsibilities.

However, preventive theorists explain that only an integrated, multi-actor approach is successful [1, 2]. In this approach the preventive message and exercise is repeated and reinforced by all actors such as school, mass media, primary care doctors and health coaches. Supporting modern theories of prevention of chronic diseases are lessons from the past. Hereunder I tell short success stories about integrated prevention of infectious diseases, child mortality and traffic deaths in The Netherlands. Then I draw some lessons from this past for the future of integrated prevention of chronic diseases.

First success story: the prevention of infectious diseases

In 1849 a cholera epidemic swept across the whole of Europe. Dutch doctors—later called hygienists doctors—started that year with making health atlases: in previous times epidemiology was called medical geography. The medical hygienists found out in 1865 that cholera was related with the quality of soil, drinking water, housing, food and sanitary provisions. They created the White Cross Organization (WCO) (ref) to promote healthier lifestyles like washing yourself daily, opening windows for fresh air and using Water Closets. Inspired by these doctors, local municipalities installed sewers, waterworks and water pipes: they created a healthier environment. As soon as evidence-based vaccines against diphtheria, polio and measles and screening methods for TBC came available the WCO introduced them to the population. Later the WCO initiated treatment and recovery of infected patients, at home or in sanatoria: integration of prevention and treatment developed. The WCO was a union, a member's organization with an income related capitation fee. The WCO and its successors stimulated an integrated approach to reduce infectious diseases. And with success: most infectious diseases declined dramatically in the period 1850 until now.[1]

Second success story: the prevention of child mortality

Shortly after the First World War child mortality in the south of The Netherlands was higher than ever. The director of the State office for Statistics produced atlases to notify parliament and doctors (ref). The already mentioned WCO and its successors took the initiative to

[1]This is a summary of Kolk-Kousemaker, M van der, Het beleid van het Witte Kruis, Het Groene Kruis en het Wit-Gele Kruis over de periode 1875–1945 [The policy of White Cross, The Green Cross and the white-yellow Cross during the period 1875–1945]. PhD-thesis Utrecht University; 2005. [in Dutch].

start Mother and Child Clinics to promote healthier lifestyles, for instance to educate the mothers to continue with breast feeding and to give the babies enough fresh air and sunlight. The majority of the clinics was under the responsibility of family doctors but carried out by nurses: so integration between prevention and treatment flourished. The clinics were part of the members' organization WCO and comparable unions with always lower capitation fee for the lower income groups. In 1939 most of The Netherlands was covered by Mother and Child Clinics. The child mortality declined sharply.[2]

Third success story: the prevention of traffic deaths

In 1966 the Dutch Government published a (up to the present day) well known policy document: The Public Health Paper 1966 (ref). This paper showed many tables and maps about the increase of traffic deaths, in absolute terms as well as in incidence per billion auto kilometres. These data heralded a new era of prevention of traffic deaths. Before this, prevention was accelerated by a serious train accident in the 1960s with many deaths, which made mass media, policy makers and politicians alert about the epidemic of traffic deaths. The members' organization for car drivers (ANWB) took its responsibility and improved its emergency services for cars and drivers and advocated a safer and healthier environment. The train disaster and the epidemiological data resulted in better education of the drivers: the requirements for a driver's license became much heavier. Mass media campaigns started to ban alcohol consumption before driving. Also the environment became healthier: separation of non-motorized and motorized traffic became usual and velocity limits were introduced. The auto industry developed, tested scientifically and implemented preventive interventions just before an accident by seat belts and later air bags. Since the 1970s the number of traffic deaths has declined drastically.[3]

What do these three success stories teach us for the prevention of chronic diseases? I draw the following lessons:

1. atlases, maps and data were important to stimulate prevention
2. disasters (cholera epidemic, First World War, train disaster) accelerated the implementation of prevention
3. both education of the individual and introduction of a healthier environment took place
4. scientific support was given to develop and test preventive interventions
5. members' organizations with income-related capitation fees played a key role
6. integration between preventive interventions and treatment or emergency services became a governmental priority across sectors—probably fuelled by great public concern and mass media influence

I know that history never repeats itself exactly. I invite readers of this Journal to discuss with me whether these six lessons are relevant for the prevention of chronic diseases. Do we indeed need a disaster to accelerate it? Is scientific support nowadays enough to develop and test interventions to reduce the seven unhealthy lifestyles? Are membership organizations of chronic patients the driving force? Is an integration of preventive and treatment services necessary? Please, mail your reaction to this journal

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