

H. BOUMA (ISG grandmaster). Prevention in public health engineering (Keynote). Gerontechnology 2014; 13(2):64; doi:10.4017/gt.2014.13.02.231.00 **Purpose** Public health is concerned with supportive environments for healthy living and as such is directly coupled to prevention. Given the gradual demographic development and fast technology innovation of our era, can we understand present dilemmas on the basis of past successes and provide guidance toward the future? **Method** The goal of this research is to analyze the existing success and failure of prevention in the main domains of life by technologic means and, in the present demographic shifts, look for future success and failure. The changing definition of 'health' is considered as well. **Results & Discussion** The main domains of life can be described as^{1,2}: (1) Health and Self-Esteem (2) Housing and Daily Living (3) Mobility and Transport (4) Communication and Governance (5) Work and Leisure. Landmarks of successful prevention in the public sphere are the provision of clean drinking water and the presence of sewerage. Landmarks of failing public prevention are war and poverty. At present, an unpolluted environment (including low fine dust concentration and limitation of greenhouse gasses) and the protection of privacy are among the benefits to be wrested from prevailing narrow economic and quasi-economic interests. For older people, earlier preventive measures could have provided easy access to digital services as a basic public interest. Technology offers the means for empowerment of the elderly to actively adapt to changes in their life situation. These are just examples from a wide framework³ (Figure 1). Scientific research has been and remains the powerful motor for identifying both opportunities and distractions and for providing guidance in the complexities of the public domain that is caught between so many conflicting interests⁴.

References

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Keywords: communication & governance, prevention, public health, life domains

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| Goal | Life domain | | | | |
|--------------------------|---|--|---|---|-----------------|
| | Health Self Esteem | Housing Daily living | Mobility Transport | Communication Governance | Work Leisure |
| Prevention Engagement | Clean air Safe water Healthy diet E-health | Safe housing Domotics Daily exercise | Traffic safety Car automation Building access | E-education tools Privacy protection Digital services | Social media |

Figure 1. Second row of impact matrix² showing active prevention as a relevant goal to be met in five main life domains; cells indicate examples, most of which being technology-mediated