

The DECiPHER

The **security** domain of municipal influence

1. Purpose.

This note reviews the potential impact of local security measures on reducing cardiovascular disease (CVD) in European cities.

2. Rationale.

The aim of DECiPHER is to produce a training package for municipalities which helps decision-makers optimise the mix of citywide programmes and investments to maximise public health impacts. The training package (VET) depends on a cost-benefit model, initially focusing on CVD as the biggest cause of death and disability in Europe. The first work package of DECiPHER led by Sheffield Hallam University, includes work to enhance the extant model of 'downstream' or proximal determinants of health by incorporating 'upstream' or 'distal' determinants of health. Security is one of the six distal domains selected by partners as a potentially important municipal influence on the prevalence of CVD.

3. Concept & Method.

We can ascribe a wider, philosophical meaning to the term security. Antony Giddens, the eminent British sociologist, has popularised the concept of 'ontological security' or 'existential security' - a secure sense of identity of who you are in an uncertain world.ⁱⁱ Albert Maslow's 'hierarchy of needs' is often represented as a pyramid with safety or security as the next level to be satisfied once basic physiological needs of shelter and food are met.ⁱⁱⁱ This segment of the pyramid includes '*security of body, employment, resources, morality, the family, health and property.*' Both Giddens and Maslow emphasise capacity to control events which shape a life course.

The scope of our domain is limited, to a sense of personal security, to the absence of an inter-personal threat to our physical and mental well-being. It is therefore a social sense of security as described in *Healthy Urban Planning in Helsingborg*. '*To feel good and safe is a matter of every-day control - a feeling of security and active participation in different matters ranging from the situation in individual residential areas to questions involving society as a whole.*'(page 3)^{iv}

This is a preliminary assessment of the scope, scale and potential impact of municipal investment security. First we develop a schematic model, then second, plug-in evidence from 16 scientific studies to populate the model.

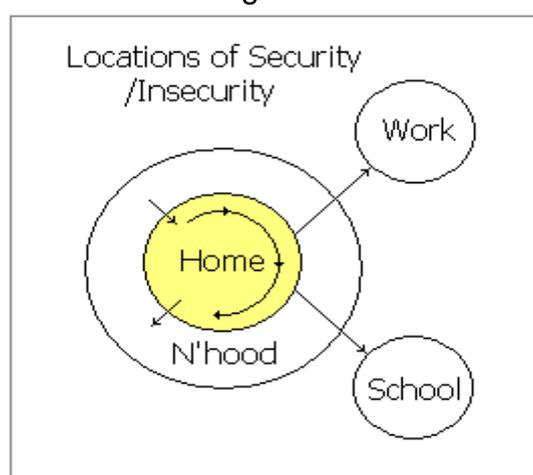
4. Role and influence of European municipalities.

Municipalities have influence (and often a constitutional/legal **competence**) over the security domain either by (i) providing a strategic framework for city development (ii)

directly providing local employment (iii) purchasing services from contracting agencies, or (iv) influencing the investment programmes and services of *partner* agencies. Many European cities have Crime Prevention Partnerships or Community Safety Partnerships with the objective of preventing crime. Often the municipality has a lead role. For example, in Helsingborg the Council for Crime Prevention is chaired by a municipal politician and includes representation from the police, social services, department of risk and security, department of sustainable development and sometimes the school and department of urban planning.

There are four settings in which municipalities have an influence over security - (i) in the home, (ii) in the neighbourhood (iii) at work and (iv) in schools.(Figure 1) The last two settings are covered in our reports on the domains of economy and education. The arrow from neighbourhood to home represents a threat to security by intruders; this is analysed in the report on the housing domain. Here we consider two security settings. First as recommended by the second DECiPHER meeting in Udine, we analyse the health impact of domestic violence or Intimate Partner Violence (IPV). Second we analyse the security of the neighbourhood outside the home.

Figure 1.



(i) *Domestic violence*. Primary and hospital health services, often controlled by Central and Regional Governments, may screen patients for the prevalence and consequences of domestic violence. The police service, which is often controlled by the Central Government Ministries of Interior, has a primary competence for bringing perpetrators to justice. However, municipalities have primary responsibility for preventing domestic violence via their social work departments. Many European states require municipal social service departments to work collaboratively with the police and health services to manage households at risk from violence or abuse, either to partners or children.^v The Italian Framework Law is a good example.^{vi}

(ii) *Neighbourhood security*. Though central and regional governments provide macro-economic policy guidelines for local development, European municipalities have a primary legal competence for neighbourhood planning and development. Municipal planning departments undertake this function, liaising with external agencies, including the business sector, and internally with transportation, education, housing and welfare departments. In the last decade, in Phases III and IV of the

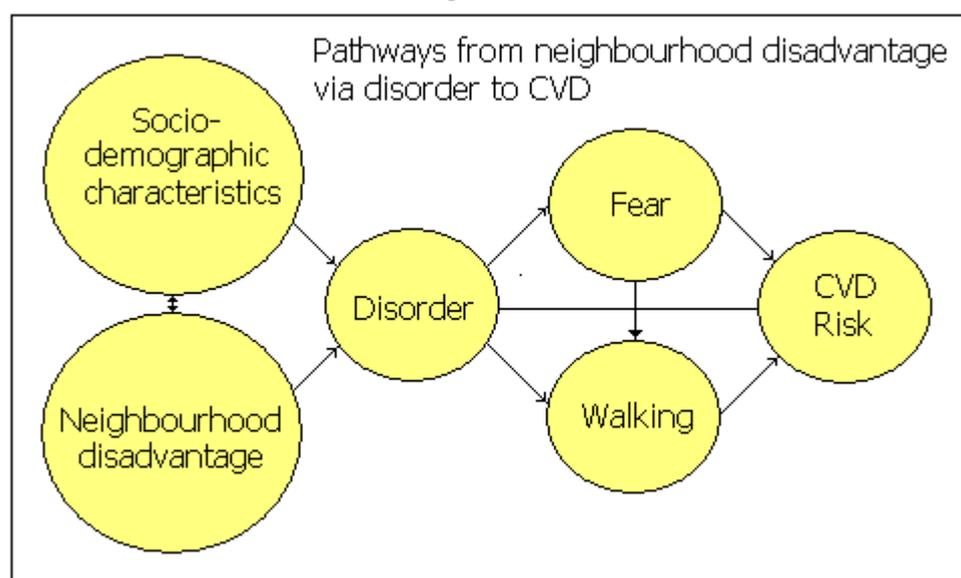
WHO European Healthy Cities Network, many municipalities added a health dimension by undertaking Healthy Urban Planning. Helsingborg has produced an exemplary municipal plan which integrates healthy urban planning, sustainable development and safety and security.^{vii} Municipal plans may also include a security dimension.

5. Two pathways to reducing CVD: reducing domestic violence and improving the security of neighbourhoods

(i) *Domestic violence.* An EU Daphne II project on domestic violence in Europe defines it as '*controlling behaviour by the intimate partner or ex-partner, which includes, but is not limited to physical and sexual violence, emotional abuse, isolation, economic abuse, threats, intimidation and stalking.*'^{viii} Popular headlines highlight physical violence and there is little scientific evidence linking such trauma to CVD. However, more sustained controlling and repressive behaviour by the perpetrator leads to stress on the victim and stress is clearly linked with CVD.^{ix} The United States Centre for Disease Control found that more women with a 'lifetime history of intimate partner violence victimisation' experienced high blood cholesterol, stroke and heart disease, compared with those with no such history.^x The relatively small percentage of men with such a lifetime history experienced similar risk factors.

(ii) *Neighbourhood security.* There are many scientific articles which evidence a strong link between neighbourhood disadvantage and risk of CVD. These are summarised in our report on the environment domain. Many neighbourhood factors interact to reinforce a vicious cycle of decline or a virtuous circle of improvement. A key objective of scientific studies is to account for the independent effect of neighbourhood violence and disorder. Using sophisticated modelling techniques, Kristina Sunquist et al showed how an increase in the rate of violent crime in areas of Stockholm was associated with an increased risk of CVD.^{xi} Catherine Ross and John Mirowsky characterise disorder prevalent in neighbourhoods where residents '*report noise, litter, crime, vandalism, graffiti, people hanging out on the streets, public drinking, run-down and abandoned buildings, drug use, danger, trouble with neighbours and other incivilities associated with a breakdown of social control.*'^{xii} They tested for the mechanisms of fear and reducing walking in neighbourhoods of Illinois using the model in figure 2. (We have substituted CVD risk or Health). They found a significant relationship between fear and health which included heart disease and high blood pressure as two of 10 markers of health. This pathway is also supported by our evidence from social housing estates in Liverpool showing that fear of neighbourhood crime and stress are highly correlated with health.^{xiii}

Figure 2



The evidence on walking is not so compelling. Ross and Mirowsky hypothesise that neighbourhood disorder and fear will inhibit walking as an outdoor exercise, but find no significant association with health. Contrary evidence is supplied by Roger Harrison and colleagues in their study of two districts in North East England.^{xiv} They found that people who felt safe in their neighbourhood were more likely to be physically active.

6. Cost-benefit: scale & scope

(i) *Domestic violence*. It is difficult to estimate the prevalence of lifetime domestic violence, which is more likely than short term episodes to have an influence CVD. The definition can embrace intimate partners, including sexual partners and parents, plus non-intimate household members. The influential *WHO Multi-country study of Women's' Health and Domestic Violence Against Women* reports big variation in prevalence between countries, ranging from 10% to 30% of women experiencing violence from an intimate partner.^{xv} The study by the Centres for Disease Control (CDC, cited earlier) indicates that 24% of women and 11.5% of men over 18 have a lifetime history which includes partner violence victimisation. A UK study by the UK Government Ministry of Interior reported similar prevalences, 23% of women and 15% of men between 16 and 59.^{xvi} A study by the Finnish Ministry of Social Affairs and Health gave a similar prevalence of 22% of women victims of physical or sexual violence by their partner.

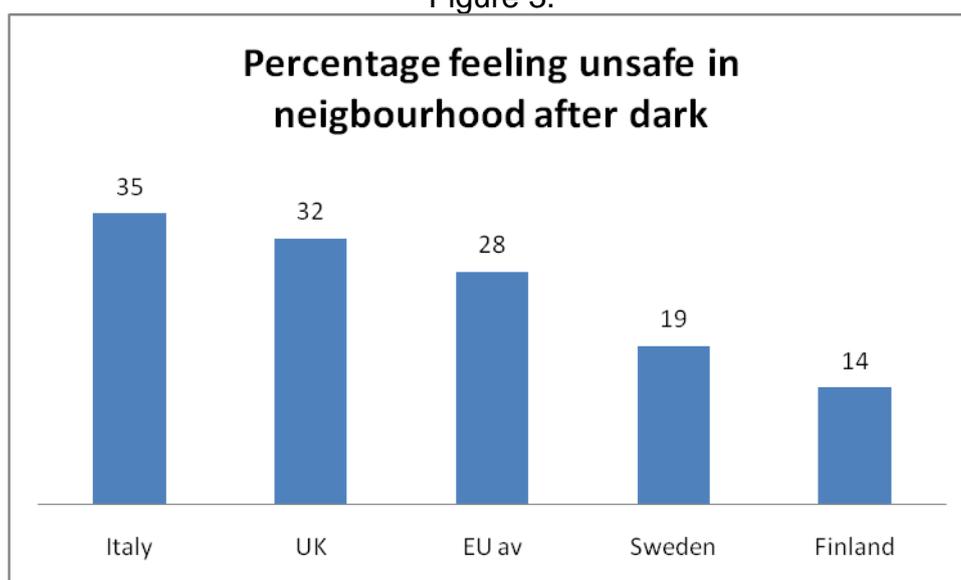
On the cost side of the equation, the same (unsourced report from the Finnish Ministry) calculated that the social cost to society of one act of domestic violence costs €22,000 (1997 prices) compared with only €900 to treat an assailant with 3 months evaluation and 15 group therapy sessions. On the benefit side of the equation, the CDC study indicated that stroke was more common in women who had experienced IPV compared with no IPV women (3.2% compared with 2.0% of the

sample. There were similar ratios for heart disease (4.2%:3.0%) and high blood cholesterol (36.7%:34.0%) though not for blood pressure.

Neighbourhood security. A key reference report^{xvii} funded by the EU on the burden of crime draws on the *European Crime and Safety Survey* in 18 EU countries by Gallup. Representative population surveys general give a more accurate picture on prevalence than official recorded crime statistics and facilitate comparability between member states. On average, 15% of the EU18 adult population was a victim of crime in the previous year (UK 20%, Sweden 16%, Italy 13%, Finland 13%). Many of the crimes may be perpetrated in a victim's neighbourhood. The prevalence for assaults is UK 5.5%, Sweden 4.0%, Finland 2.5% and Italy 0.9% and robbery is UK 1.5%, Sweden 1.3%, Finland 0.3% and Italy 0.2%.

Fear of crime is not correlated with prevalence of crime, though there is a high correlation (+.79) with the proportion of the population coming into contact with drug-related problems. This may imply a set of correlations with the characteristics of a disorderly neighbourhood cited by Ross and Mirowsky. The variation in the percentage of adults feeling unsafe out after dark in their neighbourhoods is shown in Figure 3.

Figure 3.



Ross and Mirowsky report a highly significant correlation between neighbourhood disorder and fear (+.422) and a modest but significant correlation between fear and composite health (-.054) which includes measures of heart disease and high blood pressure. We (Green et al) report a very high correlation between fear of crime and stress and between both of these and mental health. The quantum association between stress and coronary heart disease is elaborated in the report on the housing domain. Roger Harrison and colleagues (cited earlier) estimate that of their sample of 15,461 responders, the number of physically active people would increase by

3290 if feelings of 'unsafe' during the day were removed and by 11,237 if feelings of unsafe during the night were removed.

7. Summary.

This note lays the foundations for developing the DECiPHER model to include a cost-benefit component of municipal investment in safety and security. An initial schematic model suggests two routes to reducing the risk of CVD: reducing domestic violence and improving neighbourhood security. Evidence from a number of social scientific and medical studies indicates the principal routes. The next stage of developing DECiPHER is to combine estimates of impact for each segment of the pathways.

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ⁱⁱ Giddens A. (1991) *Modernity and Self Identity: Self and Society in the Late Modern Age*. Polity Press. Cambridge. UK.

ⁱⁱⁱ Maslow A. (1943) Theory of human motivation. *Psychological Review*. Vo. 50: pages 370-96.

^{iv} Dock M. (2007) *Healthy Urban Planning in Helsingborg - designing for people*. Department for Sustainable Development. Helsingborg City Council. Helsingborg. Sweden.

^v Munday B. (2007) *Integrated Social Services in Europe*. Council of Europe Publishing. Strasbourg. France.

^{vi} *The Framework Law for the Development of the Integrated Systems of Interventions and Social Services*. Italy. 2000.

^{vii} Department for Sustainable Development/Municipal Executive Committee (2008) *Plan for Sustainable Development in Helsingborg*. City of Helsingborg. Sweden.

^{viii} *Work with Perpetrators of Domestic Violence in Europe (2008). Guidelines to develop standards for programmes working with male perpetrators of domestic violence*. Daphne Project. EU

^{ix} Marmot MG, Stanford SA. (2002) *Stress and the Heart: Psychosocial Pathways to Coronary Heart Disease*. BMJ Books. London.

^x Centres for Disease Control and Prevention. (2008) *Adverse Health Conditions and Health Risk Behaviours Associated with Intimate Partner Violence _ United States, 2005. Morbidity and Mortality Weekly Report. Vol.57. pages 113-117.*

^{xi} Sundquist K., et al (2006) Neighbourhood violent crime and unemployment increase the risk of coronary heart disease: A multilevel study in an urban setting. *Social Science and Medicine*. Vol. 62: pages 2061-2071.

^{xii} Ross CE., Mirowsky J. (2001) Neighbourhood Disadvantage, Disorder and Health. *American Sociological Association*. Vol. 42: pages 258-276

^{xiii} Green G., Gilbertson J., Grimsley MFJ. (2002) Fear of crime and health in residential tower blocks: A case study in Liverpool. UK. *European Journal of Public Health*. Vol. 12: pages 10-15.

^{xiv} Harrison RA., Gemmell I., Heller RF. (2009) The population effect of crime and neighbourhood on physical activity: an analysis of 15,461 adults. *Journal of Epidemiology and Community Health*. Vol.61: pages 34-39.

^{xv} World Health Organization. (2005) *WHO Multi-country study of Women's' Health and Domestic Violence Against Women: initial report on prevalence, health outcomes and women's responses*. WHO Geneva.

^{xvi} Catriona Mirrlees-Black. (1999) *Domestic Violence: Findings from a new British Crime Survey Self-Completion Questionnaire*. Home Office. London.

^{xvii} Van Dijk J. et al (2005) *The Burden of Crime in the EU. Research Report: A Comparative analysis of the European Crime and Safety Survey*. EU ICS. Gallup Europe.