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Unintended health impacts of road transport policies and interventions

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Top line: Transport interventions have important potential impacts on health and health inequalities and these need to be better understood by policy makers and practitioners if unintended harm is not to be inflicted on population or sub-population groups.

Transport is often cited as an important determinant of health and health inequalities, and as such transport policies and interventions should be assessed for their potential to impact positively or negatively on health. Physical injury and death are the most direct health impacts of motorised transport. However, other links between transport and health need to be considered if the full potential for healthy transport policy is to be realised. Possible impacts cover a range of important public health interests. These include physical activity, obesity (about which there is increasingly strong evidence of association)¹ mental health, air quality and cardio- respiratory health, social exclusion and inequalities, and environmental impacts related to fuel emissions and climate change.

A recent paper applied best available research evidence on the health impacts of transport policies and interventions.² This was synthesised using the principles of systematic review.³ Aside from injury reduction measures, there is very little empirical data on the impact of road transport interventions. The possibility of impacts on a diverse range of outcomes and differential impacts across groups, make it difficult to assess overall benefit and harm.

The uncertainty and complexity in attributing health impacts to transport interventions appears to be great. The numbers of injuries and deaths caused by motor-vehicles which are indisputable and causal. The strength of evidence about other indirect health related impacts varies from strong quantifiable evidence of air pollution effects, to much weaker evidence on the health effects of transport noise and community severance. This leads to considerable uncertainty in assessing the overall benefits and harms of transport interventions. However, few decisions, in policy or elsewhere, are supported by thorough knowledge or conclusive outcome evaluations. And lack of conclusive evidence does not preclude the possibility for small increases in risks across a large population to have significant public health impacts.

Health Impact Assessment (HIA) provides a framework to assess the possible health impacts of interventions such as transport.⁴ While there is a considerable literature on the direct impacts of transport on injury there is far less to forecast other unintended health impacts, central to HIA. This wide range of possible impacts means that transport policies and interventions may be beneficial in some respects and harmful in others. There may also be differential and conflicting impacts depending on the level (individual v population), location, and timescale of measurement. This adds further to the potential for conflict between impacts and also increases uncertainty around overall benefits and harms.

¹ See Essential Evidence No. 7.

² Thomson et al, 2008 Assessing the unintended health impacts of road transport policies and interventions: translating research evidence for use in policy and practice, *BMC Public Health*, 8: 339.

³ This results in rejection of 'low level' cross sectional and other uncontrolled study data. See Essential Evidence No.3.

⁴ Health Impact Assessment will be addressed in a forthcoming edition of Essential Evidence.