

Appendix 1: Evidence of Effectiveness and Cost Effectiveness

1. Harm-reduction refers to any attempt to reduce the harm, psychological or physical, from smoking without complete cessation (West *et al*, In Press). NICE has outlined evidence-based harm reduction recommendations within their Public Health Guidance 45 (NICE, 2013). This guidance is supported by Public Health England (PHE), the Department of Health (DH), Action on Smoking and Health (ASH), and the National Centre for Smoking Cessation and Training (NCSCT). Interventions can involve behavioural support and medication to support quitting (Nicotine Replacement Therapy). It generally takes three forms;
 - Temporary abstinence: (e.g. longer-term in situations where smoking may not be an option such as in hospital or prison, or shorter term such as during the working day) with or without the help of medication (Nicotine Replacement Therapy –NRT) or behavioural support
 - Cut-down to quit: reducing smoking with medication (NRT) and behavioural support. (Or possibly e-cigarettes.
 - Longer term medication (NRT) used as a replacement for some or all of smoking and behavioural support
2. There is a well-established evidence base for harm reduction interventions. Although abrupt quitting remains the best option for smokers but reducing levels of smoking is able to provide some benefits.
 - Not all smokers are able, or willing to successfully quit smoking over the long term. These approaches could offer greater benefit to these heavier and more addicted smokers. It is known that people from routine and manual groups, who tend to be more dependent on nicotine, are more likely to cut down first, rather than stop ‘abruptly’ (Siahpush *et al*, 2010).
 - Low-level smokers (i.e. those smoking fewer than 15 cigarettes per day) have been found to have a 17% reduced mortality risk than other smokers (Doll 2004).
 - Smokers who reduce their level of tobacco intake are significantly likely to attempt a quit attempt in the near future and more likely to quit after six months
3. NICE PH 45 Guidance 2013 is underpinned by a number of economic reviews of harm reduction interventions for stopping smoking. They provide evidence that all harm reduction interventions are cost effective when compared to doing nothing. The level of cost effectiveness will depend upon the cost, duration and outcome of the intervention i.e. cut down or quit.

- For interventions that lead to cutting down or quitting the cost per quality-adjusted life year (QALY) was modelled at £437 to £8464. For temporary abstinence the cost per QALY was modelled at £765 to £8464 (Below the NICE threshold of cost-effectiveness of £20,000).
 - Providing licensed nicotine-containing products (i.e. NRT) for a period of up to 10 years is considered a cost-effective use of resources for an intervention that achieves a quit rate of 6%, and this falls to five years for an intervention with a 4% quit rate (NICE, 2013).
 - Compared with other smokers, a person aged 25 years who reduces (defined as reducing to less than 15 per day), their smoking levels will live for an additional two years and will save the NHS £882.
 - A smoking intervention that achieves one additional 'reducer' aged 50 will save the NHS approximately £767 over the person's lifetime. An intervention that leads to one quitter will save the NHS £1,412 over the same period
4. Harm reduction approaches will incur an additional cost in terms of staff time and medication (NRT). Although the cost is dependent on the product price, dosage, duration of use and existing local commissioning arrangements.