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## Letter to Editor

### **Response to: Commentary on Hancock et al. (2020): Low dead space syringes are just one component of an integrated package of care needed to tackle HCV and social exclusion among people who inject drugs**

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### **Declaration of interests**

None.

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**Keywords:** cost effectiveness, hepatitis c, low dead space syringes, modelling, needle and syringe programmes, people who inject drugs

Dear Editor,

We read with interest Platt et al.'s commentary<sup>1</sup> on our economic analysis<sup>2</sup> and agree with many of the points raised; particularly the urgent need to '*avert the growing health crisis faced by [people who inject drugs] PWID in the United Kingdom*'. We agree that the provision of detachable low dead space syringes (LDSS) is one of several diverse strategies needed to address hepatitis C virus (HCV) transmission, and more broadly, to reduce social exclusion and health and social inequalities among PWID.

We show in economic models that replacing detachable high dead space syringes (HDSS) with detachable LDSS at needle and syringe programmes (NSP) is a cost-saving approach to reducing HCV transmission among PWID. This research forms part of a multi-disciplinary body of evidence supporting the roll out of LDSS. In addition, we have previously demonstrated that LDSS use is associated with reduced HCV risk in the UK, have shown why some PWID use LDSS and some do not,<sup>3</sup> and critically shown that NSPs in general are a highly cost-effective way of reducing the spread of HCV among PWID<sup>4</sup>.

We agree that other initiatives are needed to deal with the added risks associated with structural disablers such as homelessness and incarceration. Nevertheless, in the context of funding cuts to services across the health and social care landscape, commissioners and policy makers need clear evidence on cost-saving strategies to guide decision making. As well as cost efficiencies, the benefits of introducing detachable LDSS include the wide-scale potential to reduce harm while requiring minimal change to service users' behaviour<sup>5</sup>. Furthermore, a complete switch in equipment available across all NSP providers would reach all PWID, including the most marginalised who may not access services directly (i.e. rely on secondary distribution from peers).

Many analyses are limited by the absence of marginalised groups in research, not just modelling. We have looked into this issue in previous and on-going modelling of the risks associated with recent imprisonment<sup>7</sup> and people experiencing homelessness<sup>8</sup>, and other modelling considering the range of factors that increase mortality among opioid users<sup>9</sup>. Furthermore, while QALYs can be limited, they can also be used to account for factors such as homelessness and recent incarceration which can reduce the quality of life of PWID<sup>10</sup>. Therefore, while we agree with Platt et al. and others<sup>6</sup> that modelling studies can simplify human behaviour, have a narrow viewpoint and are reliant on the data available, they are still a crucial piece of the jigsaw for intervention implementation and investment.

In response to the research methodology critique, we did not use estimates of syringe coverage for Bristol. Instead, we assumed a stable epidemic (consistent with recent data) with current levels of syringe distribution (HDSS and LDSS) to estimate how much transmission through syringe sharing

would decrease by if the majority of HDSS were swapped with detachable LDSS. On generalisability, the strength and robustness of our results suggest it will be cost saving even if done in pharmacy NSP and other settings. In addition, static NSP is still offered in various parts of the UK. One of the authors visited several of these during the implementation phase of this project (described below). These visits revealed that not all NSP are operated by dedicated NSP workers and highlighted the need for updated standardised training which is now being developed in collaboration with a specialist social enterprise. Bristol is unusual in that all injecting equipment is delivered through a single contract, making impact easier to assess.

Finally, we support the assertion that successful intervention implementation requires both service user and provider input. Using co-production methods, we worked closely with PWID as co-designers of harm reduction materials to implement our research in a way that supports the uptake of LDSS equipment by NSP and service users<sup>11</sup>. The materials are freely available to download ([https://www.exchangesupplies.org/shopdisp\\_low\\_dead\\_space\\_needles\\_and\\_syringes\\_what\\_and\\_why\\_booklet.php](https://www.exchangesupplies.org/shopdisp_low_dead_space_needles_and_syringes_what_and_why_booklet.php)) and have been widely distributed.

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