EVALUATING STAKEHOLDER INVOLVEMENT IN BUILDING A DECISION SUPPORT TOOL FOR NHS HEALTH CHECKS: CO-PRODUCING THE WORKHORSE STUDY

Background Ensuring academic research leads to research that is useful for end users is a key challenge in the health research arena. Stakeholder engagement is being increasingly recognised as an important way to achieve impact. The workHORSE project was designed to continuously engage with stakeholders, via four iterative workshops and an e-platform, to inform the development of an open source/open access modelling tool to enable commissioners to quantify the potential cost-effectiveness and equity of the NHS Health Check Programme. An objective of the project is to evaluate the involvement of stakeholders in the process of building the workHORSE computer modelling tool.

Methods The design of the workshop programme was theory-based using the Cairney/Oliver key co-production principles. We identified stakeholders using our extensive networks and snowballing techniques. Iterative development of the decision support modelling tool was informed through engaging with stakeholders during three workshops (to date). We used detailed scripts facilitating open discussion and opportunities for stakeholders to provide additional feedback subsequently. At the end of each workshop, stakeholders completed stakeholder engagement questionnaires to explore their views and experiences throughout the process. The research team also completed questionnaires to explore their expectations prior to the workshops and their experiences thereafter.

Results A total of 25 stakeholders have participated, of which 11 attended two or more workshops. They spanned all levels: local (NHS commissioners, GPs, local authorities and academics), third sector and national organisations (including Public Health England).

Stakeholders experiences were positive overall. They felt valued and commended the involvement of practitioners. Major reasons for attending included being able to influence development and having insight and understanding of what the tool could include and how it would work in practice. They appreciated the iterative process involving a series of workshops which provided opportunities for them to learn about and reflect upon the model’s capacity, usage and usefulness. Researchers saw the process as an opportunity for developing a common language and trust in the end product and ensuring the support tool was transparent. The workshops have acted as a reality check ensuring model scenarios and outputs are relevant and fit for purpose.

Conclusion Computational modellers rarely consult with end users when developing tools to inform decision-making. The added value of co-production (collaboration and iteration with stakeholders) potentially enables modellers to produce a ‘real-world’ operational tool. Likewise, stakeholders have increased confidence in the decision support tool’s development and applicability in practice.
for each SEM level. To evaluate statistical significance and marginal contribution of each SEM level for explaining IV uptake, the full model was fitted (all variables from all 5 SEM levels). To determine joint statistical significance of variables of each SEM level, the model without respective SEM level was compared with the full model using likelihood ratio test. Additionally, marginal contribution of each SEM level was measured by relative reduction in magnitude of pseudo R2 square.

Results For both men and women, older age groups (85 or more vs 65–69 age group; PR =1.59 for men and PR =1.56 for women); having 3 or more chronic conditions (PR =1.39 for men and PR =1.35 for women); number of GP and outpatient visits in the previous 4 weeks were associated to higher IV uptake. For men, only 2 out of the 5 SEM levels were associated to IV uptake (individual and organizational). For women 3 levels were relevant for this preventive measure (individual, organizational and community). Main marginal contribution for explaining the IV uptake, came from individual (17.9% and 16.3%) and organizational (30.7% and 22.7%) levels for both men and women respectively.

Conclusion Besides individual characteristics, like age and health status - known determinants of IV uptake - this study highlights the importance of access and use of health care services for adoption of IV preventive measure. Moreover, it evidences a sex differential behaviour that should be accounted in the definition of the IV campaign strategy.

P36 A STRATEGY TO IDENTIFY YOUNG CHILDREN WITH DEVELOPMENTAL DISABILITIES VIA PRIMARY CARE RECORDS

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Background Electronic health records use clinical codes to classify disease and conditions, not disability (how impairment affects human function). Codes for the degree of disability are not routinely recorded alongside the diagnosis, unless part of the diagnostic code e.g. profound learning disability. Existing strategies identify conditions associated with disability, prioritising either identifying every person with possible or highly probable disability to limit type I (false positive) or type II (false negative) misclassification error.

In high income countries, 1–4% of children have developmental disabilities. They can be diagnosed before the age of five but, in practice, developmental delay is often diagnosed and the disabling condition (e.g. autism spectrum disorders or cerebral palsy) diagnosed when the child is older. Diagnoses of both delay/generalised developmental disorders and a disabling condition diagnosis could indicate disability severity. Is a sensitive or specific strategy or a combination of both necessary to obtain a realistic estimate of developmental disability prevalence in preschool children?

This study aimed to develop and compare strategies to identify children with possible and probable developmental disabilities diagnosed before the age of five in primary care data.

Methods Two case ascertainment strategies were developed and the primary care records of children in the Born in Bradford (BiB) cohort study (from birth to their fifth birthday) searched: 1) to identify children with conditions associated with substantial developmental disability (autism spectrum disorders, Down syndrome and cerebral palsy and moderate-profound learning disability); and 2) to identify children with indicators of developmental disability (developmental delay, generalised developmental disorders, mild and unknown severity learning disability).

Results The combined UK prevalence of the disabling conditions is 417 per 10,000 children below age 18. The prevalence in the study sample (n =9,727) was 85 per 10,000 (n =47 autism spectrum disorders, n =24 Down syndrome, n =12 cerebral palsy). None had moderate-profound learning disability. Half also had disability indicators (53%, n =44). The prevalence of disability indicators was 450 per 10,000 (n =438). Of those with only indicators (n =394), 75.9% had a single indicator. The most common indicators in both the condition and indicator groups were speech delay, developmental delay and developmental language delay.

Conclusion Using only disabling condition clinical codes for case ascertainment via primary care data is likely to greatly underestimate disability prevalence in children under the age of five. Where independent disability verification is not possible, the number of disability indicators may reflect disability severity.