Interventions to improve engagement with immunisation programmes in selected underserved populations – executive summary

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The Vaccination Transformation Programme (VTP) is an opportunity for NHS Boards and their local partners to find different ways to deliver safe and sustainable immunisation services to suit the needs of their local population, and take account of their resources, workforce and geography. To support the VTP, NHS Health Scotland undertook a rapid evidence review to identify interventions to improve engagement with immunisation programmes in selected underserved populations. Underserved populations[1] experience significant health inequalities. They are often undervaccinated and therefore have a greater risk of vaccine-preventable diseases.

What we did

A total of seven bibliographic databases were searched for peer-reviewed studies published since 2013. Studies were selected if they were undertaken in high-income countries and assessed an intervention to improve immunisation uptake or change an intention to vaccinate.

Underserved populations covered by this review were selected by local business change managers for the VTP through a prioritisation process, and include:

- people from deprived areas
- people whose first language is not English
- people with learning disabilities
- Gypsy/Traveller communities.

Of the 1,149 studies found in the literature search, 20 are included in this review.

What we found

We found that there is an underdeveloped evidence base on interventions to improve vaccination rates among the selected underserved populations. The following conclusions were reached for each underserved population.

People from deprived areas

- A broad range of interventions were evaluated in eight studies, of which one was a systematic review of 41 studies. Evidence was predominantly from US-based studies and varied in terms of design and quality. Populations were ethnically and culturally diverse, and interventions were population and context specific, which may limit transferability to the UK. Multicomponent interventions featured across all age groups. The findings of a large systematic review suggested that locally designed multicomponent interventions[2] provide the best evidence for vaccination uptake in urban, ethnically diverse, deprived children and adolescents. It also found that interventions that include home visiting and increase in intensity could be effective, but there was mixed evidence for social marketing and limited evidence for text message reminders. Interventions to increase parental awareness of vaccination through social marketing and postcard campaigns had modest effects. Prenatal and postpartum periods were used as opportunities to improve vaccination uptake among deprived mothers and

their infants. One pharmacist-driven initiative of uncertain effectiveness was identified for an adult population.

People whose first language is not English

- A total of six studies of variable designs and quality conducted in the USA and Canada provided evidence that tailored information such as translated educational resources and/or bilingual facilitation are important to engage people whose first language is not English in immunisation programmes. Evidence from three controlled studies evaluating multicomponent interventions suggested that education in addition to support services (e.g. reminders, outreach or patient navigation) may be necessary to improve completion rates for immunisation programmes involving multiple injections. Non-clinical trusted community settings such as churches and consulates are potential locations for implementing interventions to improve vaccination rates in at-risk populations.

People with learning disabilities

- There is some evidence to support the use of health checks to improve engagement in vaccination programmes in people with learning disabilities. Improvements in immunisation status were reported in three studies from two well-conducted systematic reviews and a further UK randomised controlled trial.

Gypsy/Traveller communities

- Evidence for interventions to engage Gypsy/Traveller communities in immunisation programmes was limited to three UK studies. Outreach programmes and dedicated services were reported in two well-conducted reviews but robust evaluation of these approaches is lacking. A qualitative study proposed a number of promising interventions to improve vaccination uptake but there is a need for formal evaluation to gather evidence of their effectiveness.

Conclusions

The findings of this evidence review give an insight into what is being done to improve vaccination uptake among certain underserved populations. The heterogeneity of the interventions suggests that there is limited evidence for a single approach to promote immunisation; instead a range of approaches have been adopted to suit the local needs of the populations.

The approaches could broadly be categorised into:

- changing participant behaviour
- increasing awareness and knowledge through education
- improving access through changes to the environment.

There is some evidence to suggest that effective interventions may be multifaceted. Variation in the components of the multifaceted interventions may reflect the need to overcome different and/or multiple barriers to the underserved population which may exist at patient, provider and/or organisational level. Community-based participatory research, which featured in a small number of studies, might be worth considering in developing local interventions for specific populations to improve uptake under the VTP.

[1] Underserved populations are groups of individuals from any ethnic background who, due to social circumstances or disability, language, culture or lifestyle, find it difficult to access health care or healthcare services.

[2] They typically contained two or more interacting components, which could comprise identification, promotional materials, education, patient reminder/recall, outreach (e.g. home visits), training of healthcare workers, prompts for healthcare workers, additional services (e.g. clinics), standing orders (i.e. non-prescribing healthcare professionals) and/or community involvement.