ASSIST Global: Can we implement and research a schools-based smoking prevention intervention, developed in the UK, in a range of low- and middle-income countries?

Between 20th and 24th May 2019, an international group including representatives from East Asia (China), South-east Asia (Indonesia and the Philippines), Eastern Europe (Moldova) and the UK (England and Scotland), met at the University of Glasgow.

The focus of the meeting was on ASSIST, a schools-based smoking prevention intervention for teenagers which research has shown to be effective in the UK. The meeting was part of a small Global Challenges Research Fund (GCRF) project called ‘ASSIST Global’ which aimed to undertake preparatory research and build international research partnerships to assess whether it would be feasible to implement and evaluate such an intervention in a range of low- and middle-income countries.

This report draws on scoping work reported on and discussed at the meeting. It describes ASSIST and issues related to whether it might be feasible in any of these countries, given their cultural, social and political diversity, and ends by asking ‘What next’?

A Stop Smoking In Schools Trial (ASSIST): an effective peer-led intervention for smoking prevention in adolescence

Twenty-one years ago, in 1998, UK adult smoking rates were 27% and 24% of 15 year olds were ‘regular’ smokers (at least one cigarette a week). Concerns about these rates and evidence that existing schools-based anti-smoking programmes had little impact on behaviour, coincided with promising results from a small-scale evaluation of an informal, peer-led intervention that aimed to prevent smoking uptake in secondary schools. That intervention was subsequently scaled up to become A Stop Smoking In Schools Trial (ASSIST).

ASSIST is ‘peer-led’. We know there are strong associations between a teenager’s own smoking and that of their friends: those who smoke tend to have friends who smoke. But research evidence has also shown that influences from friends and peers can be protective, and this has led to attempts to
use peer influence for positive outcomes. Such programmes tend to use what are described as ‘peer educators’, either same-age or slightly older peers who deliver classroom-based lessons. However, evidence of the effectiveness of peer education programmes is variable, and it has been argued that when they take on this sort of ‘teacher’ role, peer educators can lose the trust of their peers.

ASSIST took a different approach, based on ‘diffusion of innovation’ theory. Diffusion of innovation is what happens when people take up something new (ideas, products or behaviours). Usually a small number of people are open to the new thing and start believing in it, using it or doing it – and as they spread the word, more and more people become open to it – which leads to the development of a critical mass of people who now believe in the idea, use the product or do the behaviour. This model was originally used in an influential US study from the 1990s which recruited popular gay men from bars and trained them to spread messages about reducing sexual risk behaviours to people in their social networks.

The central idea of ASSIST is that teenagers, called ‘peer supporters’ (rather than educators) spread the word among others in their school year group about the risks of smoking and the benefits of not smoking – and they do this in an informal way, just via conversations.

**Key features of ASSIST**

The intervention has a number of key features.

- **Identification of peer supporters** in which all students in the whole school year group complete a short questionnaire which asks them to identify up to five students who they: respect; think are good leaders; and look up to. Crucially, school staff are not involved in this process which has been shown to result in selection of a varied group of students, from a range of friendship groups and broadly representative of their year group. This means it may include students who school staff would have been unlikely to select and/or who some students might think are less suitable (e.g. those who are less academic, smoke or have behavioural issues).

- The (approximately 18%) students with the highest scores are invited to a recruitment meeting where external ASSIST trainers present the programme and explain how the peer supporters will be involved and the commitment required. At the meeting it is explained that students who smoke can be peer supporters, but only if they are willing to try and give up.

- The peer supporters then attend two days of training at an external venue. This aims to provide information to increase smoking-related knowledge and develop skills to promote smoking prevention (e.g. communication, listening, conflict resolution, confidence, empathy). At the end of the training, the students are asked to be peer supporters in their school for the next ten weeks, to keep a diary record and to attend four follow-up trainer visits. The maximum trainer:student ratio is 1:10, with trainers in the UK coming from a range of backgrounds, including health promotion specialists, youth workers and ex-teachers, all themselves having been trained to make sure the activities are engaging and fun. The external venue is believed to be important, in order to remove the peer supporters from the school environment with its accompanying distractions.

- During the next ten weeks, the trainers conduct four follow-up visits to the school, to meet with the peer supporters to monitor the diary entries, resolve any problems and provide support and the opportunity for further training.

**How do we know ASSIST works?**

Between 2001 and 2004, a large randomised controlled trial was conducted to evaluate ASSIST. It included around 11,000 12-13 year old students in 59 schools in Wales and south-west England (29 ‘control’ schools, continuing their usual smoking education; 30 ‘intervention’ schools, receiving ASSIST). The trial suggested the ASSIST intervention resulted in lower levels of regular smoking uptake that were still evident when researchers surveyed the students two years later. While
ASSIST involves financial costs (training the trainers; identifying, recruiting, training and following-up the peer supporters; training venue hire, transport and meals/snacks; school staff time involved in organisation; etc), this should be balanced against the long-term health and societal costs of smoking, with an analysis showing the intervention to be cost-effective in the UK.¹⁰

**What has happened with ASSIST since the trial?**

In 2010 ASSIST became a licensed programme and has been made widely available via a not-for-profit company, ‘Evidence To Impact’. Over 131,000 school students have now taken part in ASSIST in the UK, via more than 21,000 peer supporters. The ASSIST outcome results suggest about 2,600 teenagers who would have gone on to take up smoking have not done so. However, a 2015 Scottish feasibility trial suggested opportunities to have informal conversations about smoking with peers may now be limited because UK smoking rates have dropped markedly over the past few decades and rates among teenagers are now very low.¹¹ Evidence to Impact now works with English and Welsh Local Authorities to target the intervention to areas where smoking rates are highest.

Nevertheless, the intervention clearly has potential for adaptation to wider populations including cross-cultural applications. Indeed, it is currently being rolled out in France (where the 2015 European School Project on Alcohol and Other Drugs survey found 26% of 15-16 year olds reported having smoked in the past 30 days¹²) and trialed in Colombia, an ‘upper middle-income’ country. Note that countries and territories eligible to receive official development assistance from the world’s major donor countries are defined by the Organisation for Economic Co-operation and Development’s (OECD) Development Assistance Committee as ‘low-’ or ‘middle-income’ on the basis of gross national income per person.

‘ASSIST Global’: might ASSIST be feasible in other low- or middle-income settings?

In 2018, a team from the University of Glasgow MRC/Social and Public Health Sciences Unit and School of Education received funding for a Global Challenges Research Fund (GCRF) project called “Groundwork and preparation for a research study to adapt, develop and test the implementation effectiveness of ‘A Stop Smoking In Schools Trial’ (ASSIST) in low- and middle-income settings”. The aim of the project, which was subsequently named ‘ASSIST Global’, was to undertake preparatory research and build international research partnerships ahead of a proposal to a larger GCRF call to undertake implementation trials of ASSIST in two or more settings, and its objectives included:

- Facilitating research partner-led scoping work (desk-based and small-scale data-collection via interviews and focus groups) in four regions/countries to establish and synthesise available research evidence relating to the potential feasibility of ASSIST, including:
  - levels of need (teenage smoking behaviour/demand for smoking prevention);
  - political/cultural and school context and readiness for a peer-led intervention including identification of peer supporters via student nomination;
  - facilitators/barriers; and
  - public health research capacity.
- Building collaborations with research partners in up to three countries where feasibility was established.
- Supporting research partners in these countries to identify local delivery organisations, stakeholders and collaborators.
- Arranging a week-long Glasgow-based meeting for all the international research partners and the Glasgow team to share the findings of the scoping work and consider next steps.

The project’s first task was to identify potential international colleagues with relevant research interests, in countries with high (and, preferably rising) smoking rates and, if possible, varying social, political and school contexts in order to learn about the potential feasibility of ASSIST in different
cultural settings. After a period of desk-work, e-mails and video meetings, research partners were identified in four countries:

- China (Institute of Child and Adolescent Health, Peking University, Beijing);
- Indonesia (Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada, Jogjakarta);
- Moldova (State University of Medicine and Pharmacy "Nicolae Testemitanu", Chisinau); and
- the Philippines (De La Salle University, Manilla).

The OECD currently classifies China as ‘upper-middle’, and Moldova, Indonesia and the Philippines as ‘lower-middle’ income countries.

**How do the smoking rates in these four countries compare with those in the UK?**

In 2018, The World Health Organisation (WHO) produced its second global report on tobacco smoking trends, based on statistical modelling of available national data. This large, country-by-country report presents trends based on existing survey data between 2000 and 2015 and projected trends to 2025. Using data from the report, Figure 1 shows the trends for any current tobacco smoking among all adults (15 years or older) in the four partner countries and the UK. Figure 2 shows the trends for any current smoking among younger adults (15-24 years) in the same countries.

The figures highlight quite remarkable differences in both tobacco smoking trends and rates. Rates in all four partner countries are higher than in the UK. Figure 1 (all adults) shows that in two countries, the male adult rate is rising; dramatically in Indonesia (which has a projected 83% male adult smoking rate in 2025), slightly in Moldova (projected 46% male adult smoking rate in 2025). In three countries it is falling, although less steeply in China than in the UK or the Philippines. Differences in the male and female rates are also striking in every country apart from the UK.

The number of people smoking at any one time depends on both the numbers taking up the habit and the numbers who stop, due to either quitting or death. Since most people start smoking as teenagers, it is important to know the trends in younger people: could those very high levels
among Indonesian men be because of middle-aged and older smokers? Figure 2 (15-24 year olds) shows the answer to this question is ‘no’. In fact, if anything, projected rises are steeper among younger men.

The WHO report also compiled data for teenagers, with the most recent survey results for the five countries shown in Table 1. As well as highlighting the sometimes inconsistent survey results, it once again shows the difference between countries.

Table 1: Recent national teenage surveys (all reporting on ages 13-15)

<table>
<thead>
<tr>
<th>Country</th>
<th>Date</th>
<th>Survey</th>
<th>Definition</th>
<th>Rates M</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>2014</td>
<td>Global Youth Tobacco Survey</td>
<td>Any tobacco use</td>
<td>11%</td>
<td>2%</td>
</tr>
<tr>
<td>Indonesia</td>
<td>2015</td>
<td>Global School-Based Student Health Survey</td>
<td>Any tobacco use</td>
<td>23%</td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td>2014</td>
<td>Global Youth Tobacco Survey</td>
<td>Any tobacco use</td>
<td>36%</td>
<td>4%</td>
</tr>
<tr>
<td>Moldova</td>
<td>2013/14</td>
<td>Health Behaviour in School-aged Children</td>
<td>Tobacco smoking</td>
<td>6%</td>
<td>4%</td>
</tr>
<tr>
<td></td>
<td>2013</td>
<td>Global Youth Tobacco Survey</td>
<td>Any tobacco use</td>
<td>15%</td>
<td>6%</td>
</tr>
<tr>
<td>Philippines</td>
<td>2015</td>
<td>Global Youth Tobacco Survey</td>
<td>Cigarette smoking</td>
<td>18%</td>
<td>7%</td>
</tr>
<tr>
<td></td>
<td>2015</td>
<td>Global School-Based Student Health Survey</td>
<td>Any tobacco use</td>
<td>18%</td>
<td>11%</td>
</tr>
<tr>
<td>UK</td>
<td>2013/14</td>
<td>Health Behaviour in School-aged Children</td>
<td>Tobacco smoking</td>
<td>4%</td>
<td>6%</td>
</tr>
</tbody>
</table>

Other data and analyses show that in all four research partner countries, smoking is more likely among those from rural areas. Socio-demographic variation is also evident, with higher smoking rates among more disadvantaged people in all four countries. Finally, there are also geographical differences. For example, in China, a study based on a 2010 national survey found large regional disparities, with male smoking rates of just over 40% in some provinces, but almost 80% in others; rates are highest in the south-west of the country which is furthest from Beijing.

This variation was revealed as important in the scoping work, since it means that in some areas or settings, teenage smoking rates might be so low as to mean that smoking prevention is not a priority and ASSIST might not be effective. For example, a Chinese teacher suggested “The quality of students is relatively good in our city, and the smoking rate at the baseline is low enough, so it is uncertain whether this project can effectively reduce the smoking rate”; in the Philippines, teachers in some (particularly private) schools, believe there are other, more pressing health issues, particularly mental health.

Why are there such clear differences in smoking rates between the countries?

Between-country differences reflect historical, cultural and political variation, with considerable evidence that comprehensive tobacco control policies (e.g. higher taxes and smoke-free place legislation) are needed to significantly reduce tobacco use. The UK has one of the most comprehensive tobacco control policies among developed countries. All four partner countries produce tobacco, although at very low levels in Moldova, and Indonesia is one of a handful of countries that are not parties to the WHO Framework Convention on Tobacco Control.

All four countries have smoke-free school rules, however there are variations between and within the countries in how strictly they are enforced; cigarettes are also generally cheap and easily purchased, often as single sticks, by teenagers in each country. High adult smoking rates and strong smoking cultures mean family members often smoke and although the health hazards of smoking may be acknowledged, smoking may be viewed as the norm, a sociable, pleasurable and relaxing habit, or as a masculine rite of passage. Among females, smoking may be perceived as less attractive and less necessary as a ‘calming’ habit or symbol of rebellion. The potential negative
impact of smoking on appearance (e.g. skin) is also seen as more important for females. Some of those taking part in the scoping work in Moldova suggested that girls smoke more than evidence currently shows, as they tend to smoke in secret and not report the behaviour in surveys. In the Philippines, where gender differences are slightly less striking, it is interesting that the scoping work found some respondents suggested that some girls smoke to appear tough or brush off the ‘good girl’ image.

In China, Indonesia and Moldova, cigarette advertising is permitted in some settings and there are few or no smoking cessation programmes. In the past decade or so, the Philippines has adopted stronger tobacco control policies, introduced a ‘Sin Tax’ law to increase taxes on tobacco and alcohol, projects to fund healthcare and instituted a national smoking cessation programme. In all four countries, school-based smoking prevention programmes are infrequent, inconsistent and almost always teacher-led.

How easily could the school system in each country accommodate ASSIST intervention and related research?

Scoping work in the four countries identified a range of factors that might impact on how easily their country could accommodate the ASSIST intervention and related research, including:

- political will;
- general concerns around whether the model would work;
- how to respond to the very clear differences between male and female smoking rates;
- how to accommodate changes (e.g. emergence of social media and electronic cigarettes) which have occurred since ASSIST was originally developed;
- availability of delivery partners;
- degree of hierarchy and emphasis on traditional academic learning in the educational system;
- size of the school year group;
- issues related to research on effectiveness or on the process of implementation;

Each of these factors is described in further detail below.

**Political will**

There is policy support for smoking prevention programmes in all four countries. A senior member of the China Tobacco Control Association said ‘Only by controlling the smoking rate of young people can we reduce the growth of smoking in society. I also endorse the peer nomination method where students themselves find influential leaders’. The government in Indonesia has instructed schools to integrate drug education topics, including cigarettes, into their teaching. In Moldova, national and local education directors expressed their interest in the ASSIST model. The Philippines Department of Education has issued policy guidelines on comprehensive tobacco control, including awareness-raising and developing evidence-based education programmes. Most of the school leaders and teachers who were interviewed also appeared supportive and interested in the ASSIST model, however there were concerns, in some countries, that time taken up with the intervention might impact on academic studies.

**General concerns around whether the model would work**

All those participating in the interviews / focus groups in all four countries recognised the importance of ‘peer influence’ and so the potential for the model to work. However, there was some concern that in countries with strong smoking cultures, ASSIST would simply not be effective in outweighing the influence of families, the media and society. Teachers in Indonesia therefore suggested that the intervention should not be limited to peers, but also reach family members. Other concerns from one or more countries included: whether some schools and / or some students would not be interested in either ASSIST itself or in taking part in a research project; whether
parents would agree to their child’s participation; and whether taking part might increase, rather than decrease students’ interest in trying smoking.

**How to respond to the very clear differences between male and female smoking rates**

Despite the very clear gender differences in smoking rates in each country, there was general agreement that ASSIST peer supporters should include both males and females. Some student focus group participants suggested that by 12-13 years, many teenagers have mixed-sex friendship groups and that anti-smoking messages might be stronger if they come from the opposite sex, so making it particularly important to include females.

**How to accommodate changes (e.g. emergence of social media and electronic cigarettes), which have occurred since ASSIST was originally developed**

Levels of electronic cigarette availability, cost and teenage use vary between the countries. Research partners agreed that information on vaping should be provided in the training. In respect of social media, the fact that many young people barely distinguish online from offline communication means that this should also be recognised in training. However, this would need to clearly distinguish ‘everyday’ informal online interactions from more formal health education messages delivered via social media which some Indonesian students suggested that they would ignore.

**Availability of delivery partners**

In the UK, ASSIST trainers have generally been health promotion specialists, youth workers and ex-teachers. The scoping work identified a range of possibilities in these countries, including college students (e.g. from medical schools); psychologists; international organisations (e.g. UNICEF); the staff from the Moldovan network of youth health centres (Neovita); and volunteers.

**Degree of hierarchy and emphasis on traditional academic learning in the educational system**

ASSIST is not only informal and peer-led, but it relies on a peer nomination process that may mean students who are less academic, less well behaved or who smoke are selected. Although school staff may (and in the UK, occasionally do) ask for students to be removed from the list, this is generally only agreed to in respect of those with particularly difficult behavioural problems. Further, the external two-day training takes place during school days, thus removing students from their classes.

The scoping work highlighted this as a potentially difficult issue in all four countries. The Chinese educational system is well known as formal and hierarchical. In interviews and focus groups, both teachers and students expressed some concerns about the ‘type’ of student, particularly smokers, who might be selected and whether less academic students might be able to spread anti-smoking messages. Teachers in Indonesia stated that they would need to monitor ASSIST and help in identifying potential peer supporters since they understood the characteristics of students in their class, while those in the Philippines suggested they would have to ‘vet’ peer nominees to ensure their suitability for the role. Some Moldovan students argued that same-age peers cannot be influencers and that older peers would be more effective. Chinese teachers were generally not supportive of conducting training sessions during school time, due to academic pressures, suggesting weekends, after school or lunch breaks as alternatives, while in the Philippines there are very strict rules about bringing students out of public schools and concerns about scheduling training along with other school activities in private schools.

**Size of the school year group**

In the UK, ASSIST is generally implemented with students in the second year of secondary school. This means they have had a year to get to know the year group since transferring from (generally) several smaller primary schools, and are at an age (12-13) when only a minority have even experimented with smoking. The numbers involved in the original ASSIST trial are typical of schools in the UK: the trial involved almost 11,000 students from single school year groups in 59 schools, meaning an average of around 180 in each year group. A year group of around that size and the
requirement for about 18% of the year group to be trained as peer supporters, means around 30-35 peer supporters in an average year group. This, in turn would generally mean training two groups of around 15 students each, trained ideally at the same time, but in different rooms. Given the 1:10 maximum trainer:student ratio, this would require at least four, but ideally six trainers per school.

China has a nine-year compulsory school system, with most children completing six years of primary school, three of junior high (ages 12-14) and three years’ senior high, generally transferring between schools at each point. Although the maximum junior high class size is 40, in rural areas the number per class can be higher, up to 80 students, and some schools are so large that they may have 18 classes in a year group. Indonesia has a similar school system, but schools tend to be smaller (5-10 classes of 30-40 students in public schools and 3-8 classes of 20-30 students in private ones) and there are several different types of schools, including religious (Muslim) ones. The Moldovan school system is four years of primary school, five of gymnasium (ages 10-15) and two / three of upper secondary / lyceum. Moldova is by far the smallest country of the four involved in ASSIST Global and schools also tend to be small with average class sizes of 25 in urban, and 18 in rural areas – however some rural schools can have as few as five in a class. Education in the Philippines is compulsory for seven years of elementary, four junior high (ages 12-15) and two senior high school; a relatively high proportion of schools are private. The scoping work identified drop-out from schools in some countries as a potentially significant issue. The Philippines Department of Education has instituted an Alternative Learning System (school or community-based) to provide education to help students struggling to complete basic education, most often due to lack of financial resources.

Very large or small year group sizes raise questions for the ASSIST model. In a very large year group, students might know those within their class, but not the whole year group: how might this impact on the peer nomination process and how peer supporters operate? In a very small year group, the required 18% of peer supporters might amount to only one or two: how would their training be arranged and how could they be supported and / or support each other? School drop-out is another issue: often, those not in education are at higher risk of becoming smokers, so focusing an anti-smoking intervention in schools within a system where large numbers of students do not attend might mean neglecting those with most need. Further, ages at school transfer need to be considered. Waiting for a year after transfer from primary to middle-stage school might, in some of these countries, mean implementing ASSIST too late since its aim is smoking prevention, not smoking cessation. However, implementing ASSIST at the end of primary-stage school might result in a dilution of effect once students transfer to different schools and make follow-up for research purposes difficult (the original trial followed students up immediately after the intervention, then one year and two years later).

**Issues related to research on effectiveness or on the process of implementation**

ASSIST was originally subject to rigorous research in the UK, not simply about whether it was effective in terms of reducing self-report smoking uptake, but also validating self-reports via salivary cotinine (cotinine is the chemical the body creates when breaking down nicotine; cotinine levels can be measured in saliva, collected using a mouth swab). Crucially, a detailed process evaluation was also conducted. Process evaluation has been described as research which focuses on aspects of: implementation (what is implemented, and how): mechanisms of impact (how does the delivered intervention produce change); and context (how does context affect implementation and outcomes).

Scoping work in all countries suggested school-based surveys during school hours would be feasible. However, on-line surveys might cause difficulties for the (minority) of students without a smartphone or in schools where smartphones are not allowed, since school computing provision might be limited. Participants in Moldova acknowledged the benefits of collecting salivary cotinine as an ‘objective’ measure, but highlighted potential issues associated with saliva collection, storage and analysis, including the need to obtain parental consent. It would also be important to confirm
whether salivary cotinine can be used to identify someone as a smoker if they live in over-crowded conditions among others who smoke. A further issue is that not every country has researchers with significant experience of evaluation research or the qualitative data collection and analysis required for process evaluation. The characteristics of some of the countries also present specific issues for consideration. For example, in China, smoking rates are lowest (perhaps making ASSIST unfeasible) in the north-east geographical areas closest to Beijing, and highest in the south-west: would it be possible for Beijing-based researchers to manage a study conducted so far away?

**Where next?**

One of the aims of the meeting was to build strong foundations for collaboration. We did this not only through meeting sessions, but also during social events: meals, a boat trip on Loch Lomond and a visit to a ceilidh (Scottish traditional dancing). The week-long meeting cemented relationships already begun when one or other of the Glasgow team visited each of the country partners early in their scoping work. The discussions were enriched by the inclusion of individuals with hands-on experience of the ASSIST intervention, the related randomised controlled trial, and running trials and process evaluations more generally.

The overall aim of ‘ASSIST Global’, was to undertake preparatory research and build international research partnerships ahead of a proposal to a larger Global Challenges Research Fund (or similar) call to undertake implementation trials of ASSIST in two or more settings. That aim has been met, and we are already thinking and talking about the next stage, which is likely to be an exploratory trial to assess the feasibility of implementing and researching ASSIST in one or more partner countries.

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References


