

Institution: University of Bristol

Unit of Assessment: UoA2

Title of case study: DECIPHer-ASSIST: Reducing teenage smoking through a cost-effective

prevention programme

# 1. Summary of the impact

ASSIST (A Stop Smoking in School Trial) is reducing smoking rates among teenagers by 22%. 'DECIPHer' Impact Ltd was set up to rollout the ASSIST programme which has been adopted widely in England and Wales with 26 licences being commissioned. The company has achieved £240K annual turnover. As a result, an estimated 1674 young people have not taken up smoking. *The Lancet* estimates that if ASSIST were implemented across the UK, 40,000 teenagers a year would not start smoking.

ASSIST has been commended by the English and Welsh Governments and recommended in National Institute for Health and Care Excellence (NICE) guidelines.

# 2. Underpinning research

Smoking kills nearly six million people a year and is forecast to kill one billion people in the 21<sup>st</sup> century. Tobacco users who die prematurely leave their families without income, increase the cost of healthcare, and impede economic development. In the UK, smoking accounts for nearly 20% of deaths and costs the NHS around £2.7 billion every year. Children who start smoking before the age of 16 are twice as likely to continue as adults (compared to those who start later). They are also more likely to have respiratory illnesses, use alcohol and drugs, and be absent from school compared to those who do not smoke.

Preventing young people from starting to smoke is a key element of tobacco-control strategies. ASSIST is based on an American model where opinion leaders in the gay community train others to promote better sexual health choices. ASSIST adapted this model and trained and supported influential Year 8 school students (aged 12-13) to support their friends and classmates [1]. These 'peer supporters' have informal conversations with other Year 8 students about the risks of smoking and the benefits of being smoke-free.

ASSIST was a joint initiative of the Universities of Bristol and Cardiff. In the major part of the research the intervention was further developed and evaluated by a randomised controlled trial (RCT) funded by the Medical Research Council [2]. Rona Campbell from the University of Bristol led this research jointly with Laurence Moore of Cardiff University. The RCT followed young people for two years and found ASSIST was effective in reducing smoking uptake by 22% over this period [3]. The trial results were published in *The Lancet* and estimated that if implemented throughout the UK, the programme would prevent 40,000 young people taking up smoking each year. The research also evaluated the delivery process to help understand what made the programme successful. It found that ASSIST was implemented with a high degree of fidelity and was acceptable to schools and teachers, and to the young people who received it [4,5]. Further analysis also indicated that the ASSIST intervention was cost effective [6].

More detailed follow-on research on the peer supporters found that those who were asked to work informally, rather than under the supervision of teaching staff, took the responsibility seriously and were effective at passing on messages about not smoking to their peers [5]. This is a research finding of considerable significance that can be applied to other health areas.

The RCT fieldwork was carried out equally by Bristol and Cardiff universities. The data analysis for the RCT was conducted in Bristol and Bristol took the lead in publishing research from the RCT: eight of the nine journal papers produced have a Bristol-based first author (Campbell, Audrey, Starkey and Hollingworth) and in six of the nine papers Rona Campbell is the senior (last-named)



author. Jo Holliday was seconded to Bristol from Cardiff for 9 months to work on the dissemination of ASSIST.

#### Bristol Research Team

Professor Rona Campbell

Dr Susanne Audrey-Research Associate

Dr Fenella Starkey-Trial-cordinator-Left 15th Sept 2007

Mrs Kathleen Cordall-Health Promotion Specialist-30th Sept 2002

Dr Rachel Hughes -Statistician

Professor William Hollingworth-Health Economist

Mr James Hawkins-Health Economist-11th April 2012

Dr Jo Holliday-Research Associate-8th Sept 2008-31st May 2010.

#### 3. References to the research

- [1] Audrey S, Cordall K, Moore L, Cohen D, Campbell R on behalf of ASSIST (A Stop Smoking In Schools Trial). The development and implementation of a peer-led intervention to prevent smoking among secondary school students using their established social networks. *Health Education Journal* 2004. 63(3) 266-284. http://dx.doi.org/10.1177/001789690406300307
- [2] Starkey F, Moore L, Campbell R, Sidaway M, Bloor M. and ASSIST (A Stop Smoking in Schools Trial) Rationale, design and conduct of a comprehensive evaluation of a school-based peer-led anti-smoking intervention in the UK: the ASSIST cluster randomised trial [ISRCTN55572965]. *BMC Public Health* 2005, 5:43 http://dx.doi.org/10.1186/1471-2458-5-43.
- [3] Campbell R, Starkey F, Holliday J, Audrey S, Bloor M, Parry-Langdon N, Hughes R, Moore L. An informal school-based peer-led intervention for smoking prevention in adolescence (ASSIST): a cluster randomised trial *Lancet* 2008; 371: 1595–1602. http://dx.doi.org/10.1016/S0140-6736(08)60692-3
- [4] Audrey, S. Holliday J. Campbell R. It's good to talk: Adolescent perspectives of an informal, peer-led intervention to reduce smoking. *Social Science & Medicine* 2006:63:320-334. http://dx.doi.org/10.1016/j.socscimed.2005.12.010
- [5] Audrey S, Holliday J, Campbell R. Commitment and compatibility: Teacher perspectives on the implementation of a school-based, peer-led smoking intervention. *Health Education Journal*. 2008;67: 74-90. doi: 10.1177/0017896908089387
- [6] Hollingworth W, Cohen D, Hawkins J, Hughes R, Moore L, Holliday J, Audrey S, Starkey F, Campbell R. Reducing smoking in adolescents: cost-effectiveness results from the cluster randomised ASSIST (A Stop Smoking In Schools Trial). *Nicotine and Tobacco Research* 2012, 14:161-168. http://dx.doi.org/10.1093/ntr/ntr155

# **Grant (peer reviewed)**

Moore L. Campbell R, (Co PIs), Bloor M, Parry Langdon N, Williams G. Randomised controlled trial of a schools based, per led, smoking intervention. Medical Research Council. 2001-2005, £1,428,087

# 4. Details of the impact

### **Impact on Policy**

The research associated with the development and evaluation of ASSIST has had a substantial impact on policy.

• In February 2010, the UK government published 'A Smokefree Future', its White Paper on tobacco control. It outlines future policy and focuses on the use of evidence-based policies in three areas, the first of which is 'To stop the inflow of young people recruited as smokers' [a]. The review of evidence into smoking and young people which informed this White Paper identified ASSIST as a 'potentially important intervention' [b].



- ASSIST has been cited as an example of good practice in another Government White Paper, Healthy Lives, Brighter Futures: The Strategy for Children and Young People's Health [c].
- It was also flagged as an example of an effective preventative strategy aimed at young people in the NHS Stop Smoking Services: Service and Monitoring Guidance [d].
- Guidance published by NICE, 'School-based Interventions to Prevent Smoking',[e] which
  was informed by four separate reviews [f, g], has a specific recommendation on peer-led
  initiatives. It states that those commissioning health care should 'consider offering
  evidence-based, peer-led interventions aimed at preventing the uptake of smoking such as
  the ASSIST (A Stop Smoking in School Trial) programme' and refers the reader to the main
  trial results published in The Lancet.
- The *Tobacco Action Plan for Wales*, published in February 2012, has, as one of four strategic action areas, 'reducing the uptake of tobacco use, especially amongst children and young people.' It restates the Welsh Government's continuing commitment to providing the ASSIST programme to 40 to 50 schools per year, focusing on areas of deprivation.[h]

### Implementation of ASSIST

The research intervention was faithfully translated into a practical model that can be implemented by national, regional and local bodies with health and education responsibilities. The major vehicle for dissemination has been DECIPHer (the Centre for the Development and Evaluation of Complex Interventions for Public Health Improvement), the UKCRC (UK Clinical Research Collaboration) Public Health Research Centre of Excellence jointly established by the universities of Bristol, Cardiff and Swansea.

In order to ensure effective support for the implementation of ASSIST and to maintain its integrity, the universities of Bristol and Cardiff created DECIPHer Impact Ltd, a 'not for profit' company, limited by guarantee which aims to maximise the translation and impact of evidence-based public health improvement research and expertise. Its first product is ASSIST, which is trade-marked as the DECIPHer-ASSIST smoking prevention programme. Licences are sold by the company and purchasers receive DECIPHer-ASSIST materials, training, support and ongoing quality assurance. This ensures that DECIPHer-ASSIST is implemented in a high quality way and maximises the likelihood that the effects found in the RCT are reproduced in real world implementation.

There has been substantial demand for DECIPHer-ASSIST from local healthcare purchasers [i]. To date 25 health bodies in England and the Channel Islands have been issued with licences costing up to £34K each. A more substantial licence has also been issued covering the whole of Wales, where ASSIST is being implemented at a rate of 40-50 schools per annum. Company turnover in the year ending July 2013 was £240K [i]. In its recent tobacco control policy the Scottish government committed to pilot ASSIST and discussions are ongoing with state and educational institutions in France and Germany about implementing ASSIST.[i] To date over 350 UK schools have been involved in the programme and over 150 staff from former primary care trusts and local authorities have been trained to deliver the programme.

#### Impact on teenagers

The use of ASSIST is growing every year. In the academic year 2012/2013 over 25,000 Year 8 students (via more than 4,500 peer supporters) were involved in DECIPHer-ASSIST. By summer 2013 more than 60,000 Year 8 students and over 11,000 peer supporters were involved in DECIPHer-ASSIST, resulting in 1674 fewer teenagers taking up smoking.[i]



# Recognition of the impact on health

In 2011 DECIPHer-IMPACT was the overall winner of the Bristol Health Partners Health Innovation Award [j] which recognises outstanding health innovation achievements. In 2013 DECIPHer-IMPACT won the Innovation in Healthcare Award as part of Cardiff University's Innovation and Impact Awards 2013[j].

### 5. Sources to corroborate the impact

- [a] Department of Health (2010) A smokefree future: A comprehensive tobacco control strategy for England. White Paper (p 31). This substantiates that the research associated with ASSIST has had an impact on policy.
- [b] Amos A and Hastings G, Angus K, Bostock Y, Fidler J. (2009). A review of young people and smoking in England. Public Health Research Consortium. (p97) This is a review cited in [a] which further substantiates the impact on policy.
- [c] Department of Health (2009) Healthy lives, brighter futures: The strategy for children and young people's health (p 59). Substantiates the impact on policy.
- [d] Melanie Chambers (2009) NHS Stop Smoking Services: Service and monitoring guidance (p 69). Substantiates the impact on policy.
- [e] National Institute for Health and Clinical Excellence (2010) NICE public health guidance 23: School-based interventions to prevent smoking (p10). Available at: <a href="http://www.nice.org.uk/nicemedia/live/12827/47582/47582.pdf">http://www.nice.org.uk/nicemedia/live/12827/47582/47582.pdf</a>. Substantiates the impact on policy.
- [f] Bauld L, Brandling J, Templeton J (2009) Facilitators and barriers to the delivery of school-based interventions to prevent the uptake of smoking among children: A systematic review of qualitative research Available at: <a href="http://www.nice.org.uk/nicemedia/live/12827/47627/47627.pdf">http://www.nice.org.uk/nicemedia/live/12827/47627/47627.pdf</a>. Substantiates the impact on policy.
- [g] Uthman O, Yahaya I, Pennant M, Bayliss S, Aveyard P, Jit M, Barton P, Meads C, Chen Y. (2009) School-based interventions to prevent the uptake of smoking among children and young people: effectiveness review Available at: <a href="http://www.nice.org.uk/nicemedia/live/12827/47624/47624.pdf">http://www.nice.org.uk/nicemedia/live/12827/47624/47624.pdf</a> Substantiates the impact on policy.
- [h] Welsh Government (2012) Welsh Government: Tobacco Control Action Plan for Wales (pp 7,15-16). Available at: <a href="http://wales.gov.uk/topics/health/improvement/index/tobaccoplan/?lang=en.">http://wales.gov.uk/topics/health/improvement/index/tobaccoplan/?lang=en.</a> Substantiates the impact on policy.
- [i] Michael Day, Chief Executive Officer, DECIPHer Impact Ltd, (2013) Personal communication. For verification of the impact on teenagers including details regarding DECIPHer Impact Ltd, licence sales and the reach of the intervention.
- [j] DECIPHer IMPACT- Winners of the BRIG-H 2011 award for Innovation! Available at: <a href="http://www.decipher-impact.com/?p=121">http://www.decipher-impact.com/?p=121</a> and Cardiff University's Innovation in Health Care Award 2013 available at: <a href="http://www.innovation-network.org.uk/innovation-awards/innovation-in-healthcare-award-1.aspx">http://www.innovation-network.org.uk/innovation-awards/innovation-in-healthcare-award-1.aspx</a> Evidence of recognition of the impact on health and commerce.