MEETING REPORT

# VACCINATIONS AND THE AT-RISK ADULT POPULATION OF DIABETES

6-7 September, 2018





# Meeting Report: Vaccinations and the At-Risk Adult Population of Diabetes

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# Introduction

Today, close to four million people are living with diabetes in the United Kingdom (UK)<sup>1</sup> and the associated costs on the National Health System (NHS) are expected to reach £16.9 billion by 2035.<sup>2</sup> The diabetes epidemic presents a significant public health concern, as older people with diabetes have a weakened immune system against vaccine preventable diseases (VPDs) such as influenza,<sup>3</sup> pneumonia<sup>4</sup> and shingles.<sup>5</sup> To illustrate, people with diabetes are reported to have a fourfold higher risk of death from influenza compared to the general population and are at a higher risk for increased disease severity and more frequent complications.<sup>6</sup>

Adult vaccination is therefore a critical element of a life course approach to healthy ageing, particularly for at-risk groups such as those with diabetes. Although the UK historically has reached high vaccination uptake rates against VPDs such as influenza compared with its neighbours,<sup>7</sup> uptake rates amongst at-risk groups could be improved. From 2017-18, Public Health England aimed to provide 55% of at-risk groups with the influenza vaccine but were only able to reach 48.7%.<sup>8</sup>

Diabetes organizations comprising many millions of patients and their caregivers generally have a low level of awareness of the importance of guarding against VPDs which can have devastating long-term effects on a person's function and longer-term morbidity, and also results in increasing care needs and pressure on health and social care systems. Diabetes UK, the region's leading charity for people living with diabetes, has begun to set a positive example by mobilizing knowledge on the importance of the influenza vaccine to members through educational programs and social media, as part of Public Health England's "Stay Well This Winter" campaign.<sup>9</sup>

The high cost of VPDs in people with chronic conditions, coupled with limited research and action in this area underscores the need for further collaborative action led by patient organizations, healthcare professional organizations, and immunologists to improve vaccine awareness and increase vaccination uptake rates for people with diabetes to ultimately maintain healthy ageing and prevent functional decline.

#### The Meeting

From 6-7 September 2018, the International Federation on Ageing (IFA) convened a diverse group of 21 experts in the fields of public health, diabetes, ageing, immunology and sociology for the "Vaccinations and the At-risk Adult Population of Diabetes" expert meeting, held in Belfast, UK. The aims of the meeting were to build capacity and resources on the importance of adult vaccination for the at-risk group of diabetes; share knowledge and successful educational programs on the subject matter; and determine optimal ways to push the agenda forward for diabetes organizations.

# Findings

#### Barriers to vaccination for the at-risk adult diabetes population

Significant barriers exist preventing adults with diabetes from being vaccinated. To begin, the ethos of adult vaccination was not developed with target populations in mind, but instead as an add-on to childhood vaccination.<sup>10</sup> People with diabetes, diabetologists, and policy-makers often lack knowledge on the importance of vaccination to this at-risk group, considering immunization as "just for kids" and not as a pertinent part of a healthy lifestyle for those with diabetes.<sup>11</sup>

Inconsistent messaging surrounding vaccination and ambiguity in vaccination guidelines can also contribute to confusion and the decision by at-risk groups to not get vaccinated.<sup>11</sup> When an individual is at the "invitational edge", the point at which a potentially life-changing opportunity (vaccines) is offered;<sup>12</sup> myths, ambiguous guidelines, and misinformation may result in the decision to not get vaccinated.<sup>13</sup>

#### **Proposed strategies to increasing vaccination rates for adults with diabetes**

Several strategies were proposed to increase vaccination uptake rates amongst people with diabetes and raise adult vaccination on the agenda of diabetes organizations, which can be divided into three main themes: cross-sectoral collaboration, traditional and social media, and education.

#### Cross-sectoral collaboration

Increasing evidence demonstrates the high importance of collaborative approaches to promoting public health.<sup>14</sup> Health groups and providers tend to work in silos, producing excellent reports and metrics independently, however external organizations and groups are rarely informed.<sup>15</sup> Cross-sectoral collaboration across public and private sectors is essential to raising adult vaccination<sup>16</sup> on the agenda of diabetes organizations, in the form of joint campaigns, joint statements and joint conferences.

The following list identifies organizations in the UK whose collaboration with diabetes organizations could prove beneficial to increasing vaccination uptake rates:

- Public health organizations (i.e. Public Health England, Public Health Agency)
- Clinician groups (i.e. Royal College of General Practitioners)
- Ageing organizations (i.e. International Federation on Ageing, Age NI)
- Health visitors / social workers
- Charity groups (i.e. Richmond Group of Charities)

- Caregiver groups
- Community groups (i.e. Soroptimist, Rotary, U3A, Lions Club, Women's Institute, Long Term Conditions Alliance Scotland, Healthy Living Alliance)
- Retirement groups
- Sports associations

Cross-sectoral collaboration between organizations such as these can be used to form campaigns to raise awareness and increase vaccination uptake rates for people with diabetes. Ideally, these campaigns should be led by a well-known public figure, as research suggests that public health campaigns led by a celebrity are more likely to result in long term public health benefits.<sup>17</sup>

Collaboration between diabetes organizations and pharmacies could also be used to share knowledge on vaccines and their important role in diabetes care by printing information directly onto medication bags, or on a small pamphlet. Cost should not prove to be a barrier to this, as pharmacists in the UK are incentivized to provide vaccinations such as the influenza vaccine.<sup>18</sup>

#### Traditional and social media

Traditional and social media have the potential to play an important role in promoting adult vaccination to people with diabetes. A variety of social media platforms should be used by organizations to promote adult vaccination, as individuals engage with media in different ways.<sup>19</sup> For example, despite

the lower rates of internet usage among older people in comparison to their younger counterparts,<sup>20</sup> rates of social media usage by this age group are increasing, particularly on Facebook.<sup>21</sup> Whether it be through public awareness campaigns on the television, Twitter, Facebook, YouTube or podcasts, a wide variety of platforms are crucial to countering conspiracy theories and reaching a large audience. For example, the Diabetes UK "Stay Well This Winter" influenza vaccination campaign used social media to determine their followers' thoughts regarding influenza vaccination, and to post two educational videos to Twitter.<sup>22</sup> Imperative to forming effective educational videos is strong communication and leadership skills by the individual relaying the information.<sup>23</sup>

In addition to social media, traditional media plays an important role in the mobilization of knowledge.<sup>24</sup> Age NI, the leading charity for older people in Northern Ireland, found that those aged 85 and older prefer to gain information from traditional media (such as pamphlets and magazines) rather than social media.<sup>25</sup> Therefore, traditional media targeting older people with diabetes has the potential to play an important role in the promotion of adult vaccination.

#### Education

Diabetes self-management education is critical to improving patient outcomes for people with diabetes,<sup>26</sup> and should therefore include an educational component on the importance of vaccination for people with diabetes, and clear guidelines on when each vaccine should be taken. Diabetes self-management guidelines are used by countless people with diabetes and would therefore allow the message of the importance of adult vaccination to the at-risk group of adults with diabetes to spread.<sup>27</sup> Diabetes UK Support Groups would too benefit from an educational talk or video from an expert on the importance of vaccination.

Similarly, clinician guidelines would benefit from direction of when to recommend what vaccine to their patient in a clear manner, and education on the importance of vaccines to people with diabetes would also reach large groups of health professionals through conferences such as that of The Association of British Clinical Diabetologists (ABCD).<sup>28</sup>

## **Next Steps**

Fruitful discussion throughout the "Vaccinations and the At-risk Adult Population of Diabetes" expert meeting led to meaningful deliberations on proposed outcomes, outlined in the table below.

1. Consensus Statement					
Description	A consensus statement comprising a clear and purposeful declaration regarding the importance of vaccination for adults with diabetes, and the importance of raising this on the agenda of diabetes organizations.				
Outcome	Using their collective capabilities and resources, the consensus statement represents delegates' joint commitment to support cross-sectoral organizations to advocate and mobilize knowledge to their members on the importance of vaccination for adults with diabetes (see appendix).				
Next Steps	Consensus statement to be shared and promoted on IFA and consensus stakeholder's social media and websites.				

2. European Diabetes Working Party for Older People – Guidelines				
Description	The European Diabetes Working Party for Older People (EDWOP) are currently revising			
	the 2011 edition of their guidelines which will now include a new set of			
	recommendations on immunization.			
Outcome	Knowledge on the importance of adult vaccination will be mobilized to clinicians who			
	nelp make decisions for older people with frailty and diabetes.			
Next Steps	IFA to work with Prof Alan Sinclair, chair of EDWPOP in reviewing immunization-			
	related guidelines			
	Guidelines to be distributed and promoted by IFA and used as a further means to promote adult vaccination			
	2 Diabetes LIK NI Member Survey on Adult Vaccination			
Description	S. Diabetes OK, Williember Survey on Adult Vaccination			
Desemption	understanding of member views towards adult vaccination, knowledge (or lack of) on			
	the importance of adult vaccination for people with diabetes, and barriers preventing			
	people with diabetes from being vaccinated.			
Outcome	Results from this survey will provide the IFA with a better understanding of where gaps			
	in knowledge surrounding adult vaccination exist, what barriers prevent people with			
	diabetes from being vaccinated, and how these barriers can be addressed. In addition,			
	this survey will help inform proposed educational videos, outlined in point 4.			
Next Steps	• IFA will discuss the possibility of creating this survey with Jillian Patchett, National			
	Director of Diabetes UK, NI in 2019.			
	optimal platforms to distribute the survey.			
4. E	ducational videos on the importance of adult vaccination to those with diabetes			
Description	IFA will create (2) educational videos on the importance of adult vaccination to those			
with diabetes for Diabetes UK, NI to share on their website and social medi				
	Diabetes UK, NI Support Group Leaders to share with their members.			
Outcome	Increased awareness and knowledge on the importance of vaccination to adults with			
	diabetes, to ultimately result in increased uptake rates.			
Next Steps	Use knowledge gained from the survey outlined in point 3 to develop (2) educational			
	videos in lay language explaining the importance of vaccination (for shingles,			
	pheumonia and initialization people with diabetes.			
Description	Age NL an organization with over 150,000 engagements with older people every year is			
Description	to propose a Pilot Peer-to-Peer Facilitation Program where volunteers are trained on			
	the importance of adult vaccination to at-risk groups, who then distribute this			
	knowledge on a peer-to-peer basis.			
Outcome	Increased vaccination awareness amongst older people and at-risk groups, such as			
	those with diabetes, leading to increased uptake rates.			

# Conclusion

Vaccination is a critical element of a public health strategy to improve and maintain the health and function of older people with diabetes. Adult vaccination therefore should be placed on the agenda of diabetes organizations as an important preventative approach.

However, key barriers exist in preventing the at-risk population from being vaccinated, including lack of awareness and misinformation surrounding the importance and availability of vaccines to adults with diabetes.<sup>13</sup> Cross-sectoral collaboration is therefore critical to raising vaccination on the agenda of diabetes organizations, in the form of joint campaigns, statements and conferences.

Adding evidence-based information on the importance of vaccines for people with diabetes to diabetes self-management programs, diabetes management guidelines (i.e. European Diabetes Working Party for Older People) and diabetes conferences has the potential to play an important role in increasing the uptake rates of vaccination for people with diabetes.

# Acknowledgements

The IFA acknowledges and thanks all delegates for their time and valuable contributions to the "Vaccinations and the At-risk Adult Population of Diabetes" expert meeting. All delegates took time to share knowledge, voice opinions, and collaborate to form viable solutions.

The diverse group of experts in the fields of diabetes, ageing, sociology, immunology and public health worked together to form valuable strategies in ways that would never have been able to be formed separately. The IFA thanks all presenters for sharing their knowledge and engaging in discussions.

The IFA thanks all representatives from Diabetes UK for their contributions: Ms. Jillian Patchett, Mr. Daniel Howarth, Mr. Albert Clyde, Mr. Tom Rush, Ms. Barbara Nicol and Mr. Colin Nicol. This meeting would not have been possible without your contributions. The IFA would also like to thank Dr David Cavan, and Prof Alan Sinclair for sharing their expertise surrounding diabetes management.

The IFA thanks the contributions made by those in the field of vaccinology and immunization, including Prof Punam Mangtani, Ms Alison Quinn, Prof Xiaoning Xu and Dr Harish Madhava.

Thank you for the contributions from those who brought an ageing focus to the meeting, including Prof Peter Passmore, Ms Linda Robinson, Mr David Sinclair and Mr Manjyot Singh Sandhar. In addition, the IFA would like to thank sociologists Prof Robert Dingwall and Prof Lindsay Prior for bringing a unique and important perspective to this important meeting.

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## **Appendix – Consensus Statement (next page)**

<sup>&</sup>lt;sup>2</sup> Diabetes UK, 2012. NHS spending on diabetes 'to reach £16.9 billion by 2035'. Retrieved from

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# **CONSENSUS STATEMENT**

# Adult Vaccination: A Critical Element to a Life Course Approach to Healthy Ageing for Adults with Diabetes

Diabetes is a significant global public health concern with wide ranging social and economic consequences. In the United Kingdom close to 4 million people live with diabetes, [1] with associated costs expected to reach £16.9 billion by 2035. [2]

Older people with diabetes often deal with additional chronic conditions which together result in a weakened immune system, lowering their defenses against vaccine preventable diseases (VPDs) such as influenza, [3] pneumonia [4] and shingles [5].

On 6-7 September 2018, the International Federation on Ageing (IFA) hosted a "Vaccinations and the At-risk Adult Population of Diabetes" expert meeting in Belfast, United Kingdom, in cooperation with Diabetes UK, the leading charity dedicated to people with diabetes in the United Kingdom.

The multidisciplinary meeting brought together experts in the fields of public health, diabetes, ageing, immunology and sociology from Diabetes UK, Public Health Agency Northern Ireland, Age NI, ILC-UK, Diabetes Frail Ltd., Dingwall Enterprises Ltd., Pfizer, London School of Hygiene and Tropical Medicine, Queen's University Belfast and Imperial College London.

These key opinion leaders came together to build capacity and gather resources on the importance of adult vaccination for people with diabetes; share knowledge on successful education programs and determine optimal ways to push the agenda forward.



**Global Connections** 

Cont'd

International Longevity Centre UK





#### A consensus was met on the following:

- 1 Vaccination is a critical element of a public health strategy to improve and maintain the health and function of older people with diabetes. Therefore, the primary goal of the meeting was to place adult vaccination as an important preventative approach on the agenda of diabetes organizations
- 2 Key barriers to improving uptake rates in this at-risk population are lack of awareness and misinformation surrounding the importance and availability of vaccines to adults with diabetes
- 3 Cross-sectoral collaboration is critical to raising vaccination on the agenda of diabetes organizations, in the form of joint campaigns, statements and conferences
- 4 Adding evidence-based information on the importance of vaccines for people with diabetes to diabetes self-management programs, diabetes management guidelines (i.e. European Diabetes Working Party for older people) and diabetes conferences has the potential to play an important role in increasing the uptake rates of vaccination for people with diabetes

#### **Stakeholders**

Jane Barratt	International Federation
David Cavan	Diabetologist and Author
Albert Clyde	Diabetes UK
Robert Dingwall	Dingwall
Ű	Enterprises Ltd.
Daniel Howarth	Diabetes UK
Punam Mangtani	London School
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	Tropical Medicine
Barbara Nicol	Diabetes UK
Colin Nicol	Diabetes UK
Peter Passmore	Queen's University
	Belfast
Jillian Patchett	Diabetes UK, NI
Lindsay Prior	Queen's University
	Belfast
Alison Quinn	HSC Public Health
	Agency, NI
Linda Robinson	Age NI
Tom Rush	Diabetes UK
Manjyot Singh	Queen's University
Sandhar	Belfast
David Sinclair	ILC-UK
Alan Sinclair	Diabetes Frail Ltd.
Diane Thomson	Pfizer
Xiaoning Xu	Imperial College
	London
Megan Acton	International
	Federation
	on Ageing

Using their collective capabilities and resources, this consensus statement represents delegates' joint commitment to support cross-sectoral organizations to advocate and mobilize knowledge to their members on the importance of vaccination for adults with diabetes.

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