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NDPP Personalised Video Pilot: Evaluation analysis and findings

Provider Dissemination Meeting
22nd September 2021

NHS England and NHS Improvement





Background/Context

- In December 2020, a proposal to pilot a personalised video tool across the NHS Diabetes Prevention Programme (NDPP) was agreed with PDG; the aim of the pilot being to support an increase in service user engagement and retention within the NHS DPP, with a particular focus on participants from Black/Black British and Asian/Asian British cohorts.
- The NDPP data deep dive highlighted that the highest levels of attrition across all ethnicities was experienced at the earlier stages in the programme pathway; the highest drop off rates between MS1 and MS2 being seen across Asian or Asian British cohorts at 18.1%.
- Therefore, the personalised video tool was placed at the earlier touchpoint of the programme between sessions 1 and 2, with videos sent up to 72 hours prior to the second session.
- Following a design, development and testing phase with current NDPP service providers and participants, the pilot was launched on 23rd February 2021 and was live for 9 weeks; Ingeus, LWTC, Reed and Xyla participated in the pilot.





Evaluation measures

Allocations

- The pilot had an overall allocation of 5,000 videos, from which each participating provider was given a split according to contract size to ensure an adequate sample cohort. The breakdown of video allocations was as follows:
 - 2,000 videos split by contract % across all NDPP providers;
 - 2,000 videos on a rolling group basis were available to utilise across all providers throughout the 9 week pilot;
 - 1000 videos set aside participants from Black and Asian cohorts (comprising 400 participants from a Black or Black British ethnic background and 600 participants from an Asian or Asian British ethnic background).

Evaluation measures

The key metrics for analysing and evaluating the impact of this tool were based on both quantitative and qualitative returns. These include the following:

- Personalised Video open rate
- Viewing rate (time / occurrences)
- Call to Action rate (confirmation / re arrange)
- Attendance at session 2 vs control group
- Service user satisfaction survey responses





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Personalised Video Evaluation Analysis

Shaun Swallow Analyst
Emma Barron Senior Analytical Manager
Dominique Bradley Senior Analyst

NHS England and NHS Improvement





Participant Sample

	n	% of videos generated	% of videos sent
Videos generated	5,276	100%	
Videos sent	3,684	70%	100%
Exclusions	187	4%	5%
Pilot group analysed	3,497	66%	95%

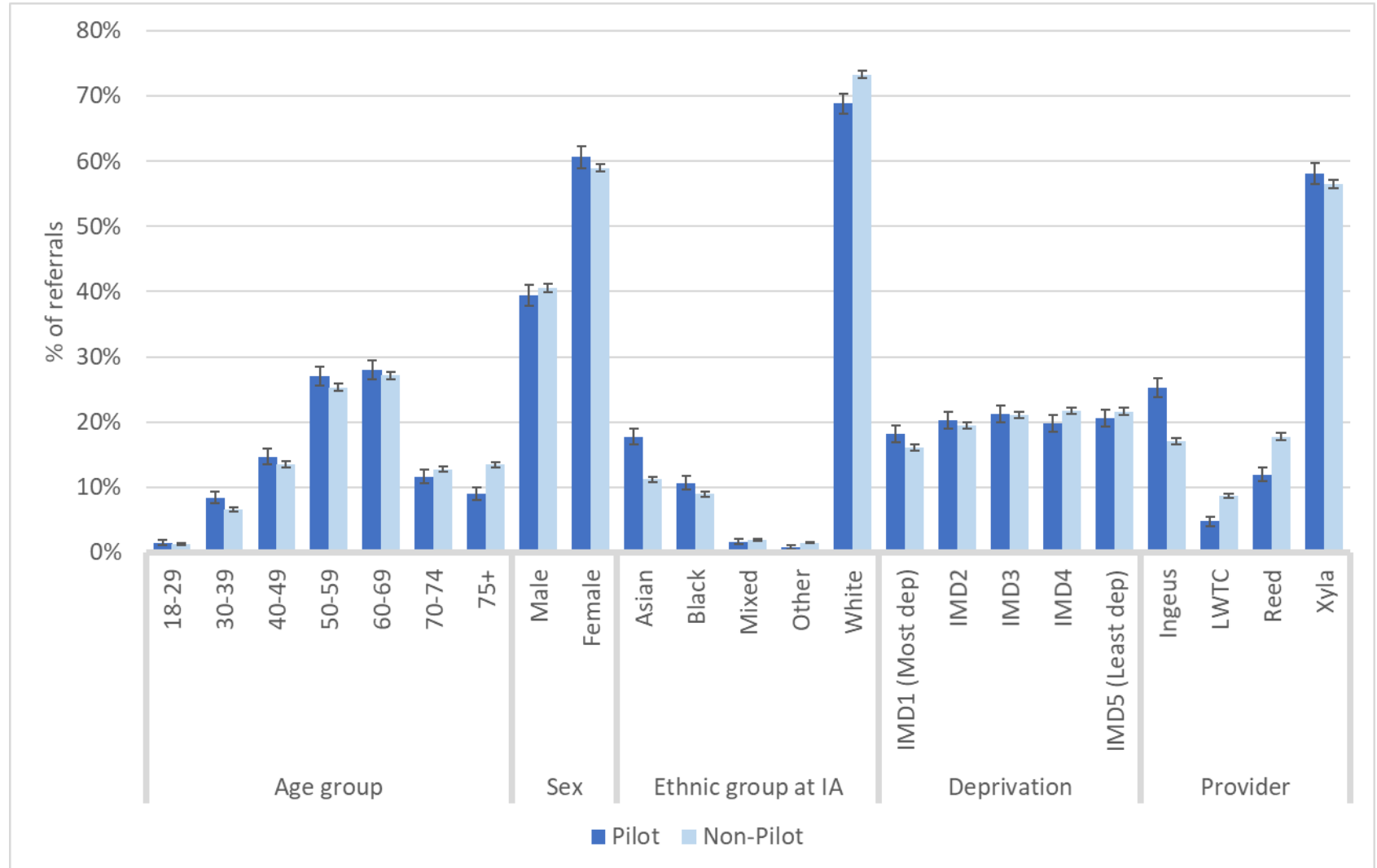
Comparison/non-pilot	23,350
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Participant Characteristics

- The pilot group and non-pilot group characteristics were generally similar, with some exceptions
- Pilot:
 - Generally younger
 - Higher proportion of Asian participants
 - Higher proportion in most deprived quintile





Uptake to IV02: Pilot vs Non-Pilot (Univariate analysis)

- **Key outcome: uptake to IV02**
- Pilot group uptake 85% - statistically significantly higher than non-pilot (82%)
- The uptake rate generally increases with age (for both groups), with uptake significantly higher in pilot group for 40-49 year olds (84% vs 78%)
- Ethnic group – No significant difference in uptake between pilot vs non-pilot, apart from white participant group, which has a significantly higher uptake rate in the pilot group (86% vs 83%)
- Sex – No significant difference in uptake for males, Females significantly higher uptake in pilot group (86% vs 82%)
- Deprivation – No significant difference in uptake for most deprived or least deprived
- Provider – Ingeus & Xyla significantly higher uptake in the pilot group than non-pilot group



Attendance at IV02: Pilot vs Non-Pilot (Multivariable analysis)

- Overall multivariable logistic regression model:
 - Pilot group had statistically significantly higher odds than non-pilot taking when into account characteristics (1.40 (1.26-155))
- Stratified models for the pilot and non-pilot to look at differences between characteristic:
 - Provider – no difference between provider performance of pilot vs non-pilot
 - Deprivation – no difference for most deprived or least deprived when comparing pilot vs non-pilot
 - Ethnic group – no difference regardless of ethnicity (different finding to univariate)
 - Sex – no difference





Uptake to IV02:

Analysis Groups Indicating level of engagement

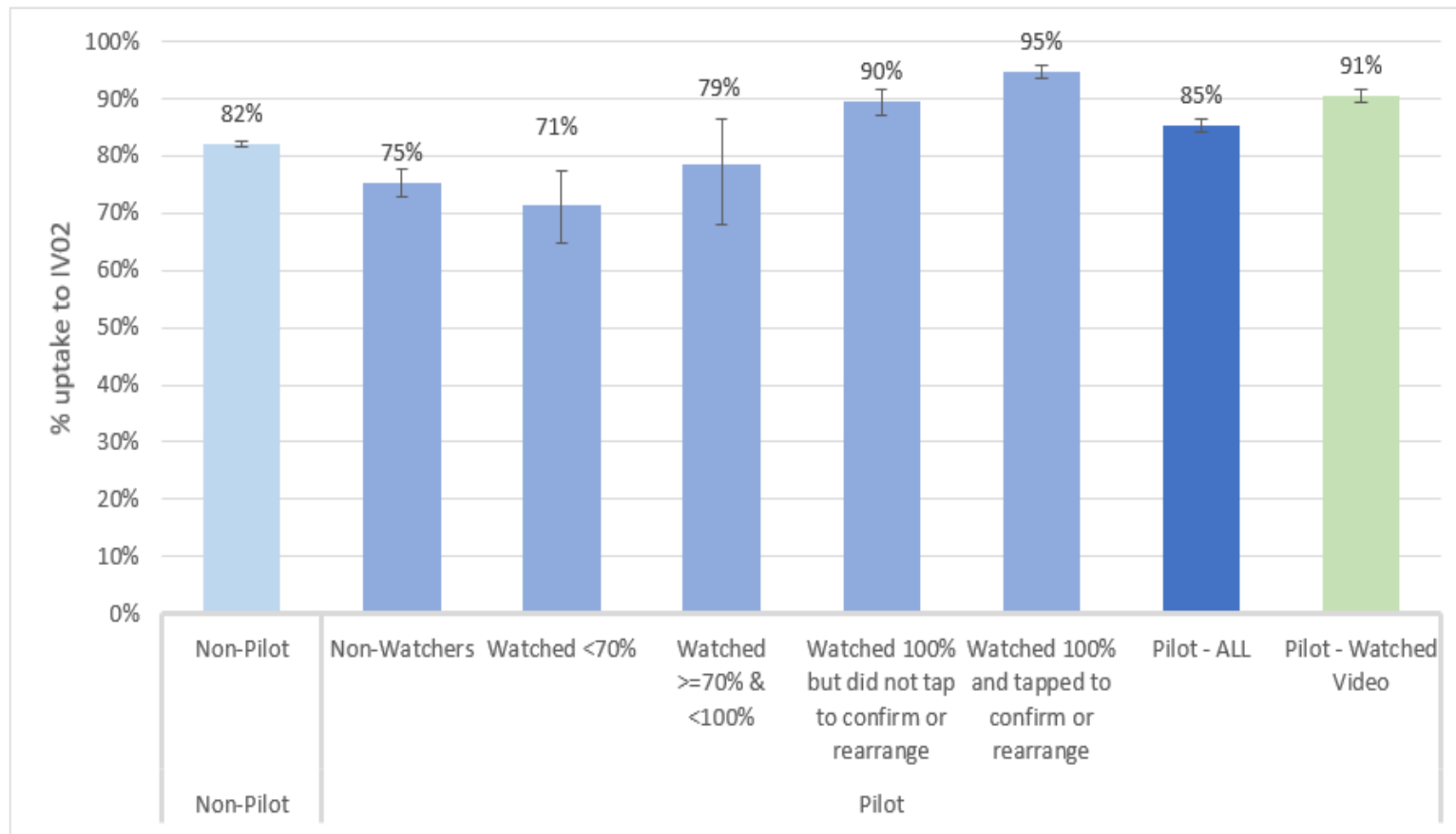
Group	Description	Number of participants	% of all participants	% of pilot participants
Non-pilot	Participants with an IV02 date between 8th Feb – 12th June inclusive that were not part of the video pilot	23,350	87%	
Non-watchers	Participants that were sent the video but did not watch any part of it	1,201	4%	34%
Watched <70%	Participants that were sent the video but watched less than 70%	189	1%	5%
Watched 70-99%	Participants that were sent the video and watched 70-99%	75	0%	2%
Didn't tap to Call and Rearrange	Participants that watched 100% of the video but didn't tap to call and rearrange	757	3%	22%
Did tap to Call and Rearrange	Participants that watched 100% of the video and tapped to either Call and Rearrange or Confirm	1,275	5%	36%
Total		26,847	100%	100%





Uptake to IV02: Analysis Groups

- Uptake was the highest for those watching 100% of the video
- Difference between non-watchers vs watched video (combined)
- Non-watchers lower than those that didn't receive the video at all
- Note that the overall comparison of 85% vs 82% HAS to include those people that won't watch the video





Attendance at IV02: By analysis group

- Multivariable regression overall: Odds increased in similar pattern to univariate analysis
- 100% & not tapped – odds 1.8 times higher than the non-pilot group
- 100% and tapped – odds over 4 times higher than the non-pilot group
- Non-Watchers had lower odds of attending than the non-pilot group
- Comparing odds ratios for each group in stratified analysis showed that odds ratios increased in the same way for every ethnic group and sex

Characteristic		Overall			
		Odds ratio	95% CI Lower	95% CI Upper	P value
Analysis Group	Non-pilot	1.00			
	Non Watchers	0.76	0.66	0.87	<0.05
	Watched <70%	0.78	0.56	1.08	0.13
	Watched 70-99%	1.01	0.57	1.79	0.98
	Watched 100% but didn't confirm or rearrange	1.78	1.40	2.27	<0.05
	Watched 100% and confirmed or rearranged	4.30	3.34	5.54	<0.05

Nb. Adjusted by age group, sex, ethnic group, deprivation and provider





Watched vs not watched Multivariable analysis

- Multivariable regression analysis with **watched video/not watched video as the outcome variable**
- Ingeus less likely to watch (email & no primer)
- IMD 1 less likely to watch than IMD5
- Females more likely to watch than males
- Aged 60-69 most likely to watch (excl. 18-29)
- Asian participants less likely to watch than white

Characteristic		Overall			
		Odds ratio	95% CI Lower	95% CI Upper	P value
Provider	Xyla	1.00			
	Ingeus	0.80	0.68	0.95	<0.05
	LWTC	0.81	0.57	1.13	0.21
	Reed	1.12	0.88	1.41	0.36
Quintile of Deprivation	IMD 1 (Most deprived)	0.76	0.60	0.96	<0.05
	IMD 2	0.90	0.72	1.13	0.38
	IMD 3	0.91	0.73	1.14	0.40
	IMD 4	0.89	0.71	1.12	0.33
	IMD 5 (Least deprived)	1.00			
Sex	Male	1.00			
	Female	1.37	1.19	1.59	<0.05
Age Group	18-29	0.58	0.32	1.05	0.07
	30-39	0.57	0.43	0.76	<0.05
	40-49	0.65	0.51	0.83	<0.05
	50-59	0.78	0.64	0.95	<0.05
	60-69	1.00			
	70-74	0.76	0.59	0.97	<0.05
	75+	0.62	0.47	0.81	<0.05
Ethnicity	White	1.00			
	Asian	0.77	0.63	0.94	<0.05
	Black	0.98	0.76	1.25	0.86
	Mixed	0.86	0.49	1.51	0.60
	Other	1.49	0.62	3.57	0.37
	Unknown	0.39	0.08	1.98	0.26





Implications

- Projected increase on non-pilot group IV02 attendances
 - From 19,195 to 20,232 (+1,037 or +5%)
- Pilot 85% vs Non-pilot 82% = difference of 4%, or 3 percentage points
 - Statistically significant, but is it meaningful?
- Potential further study
 - Video at different time points
 - Intervention for low video engagers
- Learning
 - Providers to ensure generated videos are sent





Summary

- **Uptake to IV02 was significantly higher in the pilot group compared to the non-pilot group (85% vs 82%)**
- Multivariable logistic regression confirmed that the odds of attending IV02 were higher in the pilot group when accounting for participant characteristics, but **there were no differences when comparing between ethnic groups or between males and females.**
- Uptake was significantly higher for those who watched 100% of the video than for those watching less than 100%
 - 90% uptake for those who did not tap to confirm or rearrange (odds were **1.8 times higher than the non-pilot group**)
 - 95% uptake for those who tapped (odds were **over 4 times higher than the non-pilot group**)
- Those who watched any part of the video had **significantly higher uptake rates** than those who did not watch the video.
- Multivariable logistic regression identified that **participants of Asian ethnicity and those from the most deprived quintile of deprivation (IMD 1) were less likely to watch the video** than other participants.
- Uptake was **significantly lower for participants that received the video and did not watch it**, than those who did not receive the video at all.
- It was estimated that if the video intervention had been rolled out to the non-pilot group, that there would have been an additional 1,037 (+5%) participants attending IV02.

