

Knowledge of UK physical activity guidelines: Who knows and who needs to know?

How much physical activity should we do and why?

In 2011, the UK Chief Medical Officers published guidelines which recommend that all adults should undertake a minimum of 150 minutes of at least moderate-intensity physical activity (activity that makes you slightly out of breath) each week. Regular physical activity has been linked to reduced risk of chronic diseases, such as heart disease, stroke and cancer. However, recent figures from a Northern Ireland-wide survey show that over 60% of adults do not meet this recommended amount.



Knowledge of how much physical activity that we should be doing has been shown to be an important first step to being regularly physically active. Therefore, health promotion campaigns to raise awareness that such guidelines exist are important.

What did we want to find out?

An understanding of the characteristics of those who are unaware of the physical activity guidelines can help us develop targeted, effective health promotion campaigns and interventions.

There were two main questions which we wanted to answer:

1. What proportion of adults in Northern Ireland know how much physical activity to undertake for health benefits?
2. What are the characteristics of those who are unaware of the physical activity guidelines?

What did we do?

Sport Northern Ireland carried out a Northern Ireland-wide population survey of 4653 adults on physical activity, knowledge of the UK physical activity guidelines and socio-demographic characteristics. Participants were asked “What is the recommended minimum amount of physical activity needed for a healthy lifestyle?”, and were given 17 options (see Table 1 for categorisation). The responses were based on the then existing guidelines of at least 30 minutes of moderate-intensity physical activity per day, five days per week. Multinomial logistic regression was used to investigate the associations between knowledge and socio-demographic characteristics, such as age, socio-economic position, employment, education, and modifiable health behaviours, such as, smoking, alcohol, diet, physical activity. As levels and correlates of physical activity have been shown to be different between genders, separate analyses were undertaken for males and females. Analyses were weighted to reflect the age/sex profile of the Northern Ireland population.



What did we find?

The mean age of the sample was 45 years old (95% CI 44.51, 45.58), 55% economically active, 25% had no formal qualifications, 39% earned less than £10,000 annually and approximately two thirds of the sample (65%) did not report sufficient activity to meet the guidelines.

8% of the population reported “at least 30 mins of moderate physical activity per day, 5 days per week”, and a further 45% reported that the minimum amount of physical activity required was “30 minutes per day, everyday”. Furthermore, 24% overestimated and 16% underestimated the physical activity required by the guidelines, and the remainder of those surveyed did not know what was included in the current guidelines (7%).

An Odds Ratio (OR) greater than 1 means that there is an increased likelihood of the predictor variable being associated with awareness of the physical activity guidelines. Males who had a lower level of education (OR 5.91; 95% CI 1.67, 20.94), lived in more deprived areas (OR 4.80; 95% CI 1.87, 12.30), with low income (OR 2.36; 95% CI 1.63, 3.41) and did no physical activity (OR 2.74; 95% CI 1.31, 5.76) were more likely to be unaware of the guidelines (see Table 2). Females who were younger (OR 1.03; 95% CI 1.02, 1.05) and reported poor health (OR 2.71; 95% CI 1.61, 4.58) were more likely to be unaware of the guidelines (see Table 3).

Why is this important?

Our findings suggest that those who “Don’t Know” the physical activity guidelines are a distinct group. In line with findings from previous research, males who have a lower level of education, living in more deprived areas, with low income, and young females or those reporting poor health may benefit from particular targeted physical activity guidelines promotion interventions.

Social media platforms, such as Twitter, may aid local health departments in informing and educating the population by reaching large numbers of people with real-time messages at relatively low cost. The use of social media as a tool for the dissemination of public health messages is beginning to be realised and harnessed; however, it may be a particularly useful medium for targeting younger people. Market segmentation techniques, such as those adopted by Sport England could enable specific targeting of public health messages to the groups identified in the current study.

In conclusion, there is a lack of knowledge about the levels of physical activity needed to promote health. An understanding of the characteristics of those who are unaware of the guidelines has important implications for the design of targeted, effective health promotion. Knowledge alone is not enough to change behaviour, but it can motivate, and provides an important pre-cursor to physical activity behaviour change.

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Table 1: Categories of responses to knowledge of physical activity guidelines

Category	Response
Don't Know	"Don't know"
Overestimate	"90 minutes per day, everyday"; "60 minutes per day, everyday"; "90 minutes per day, 5 days per week"; "60 minutes per day, 5 days per week"
Underestimate	"15 minutes per day, everyday"; "15 minutes per day, 5 days per week"; "90 minutes per day, 3 days per week"; "60 minutes per day, 3 days per week"; "30 minutes per day, 3 days per week"; "15 minutes per day, 3 days per week"; "90 minutes per day, 1 day per week"; "60 minutes per day, 1 day per week"; "30 minutes per day, 1 day per week"; "15 minutes per day, 1 day per week"
Aware	"30 minutes per day, 5 days per week"; "30 minutes per day, everyday"

Table 2: Socio-demographic and modifiable behaviour predictors of knowledge of physical activity guidelines for males

Characteristic		Don't Know OR [95% CI]	Underestimate OR [95% CI]	Overestimate OR [95% CI]
Car ownership		0.62 [0.41, 0.95]	1.20 [0.94, 1.54]	0.89 [0.73, 1.08]
Education (highest level)	No qualifications	5.91 [1.67, 20.94]	1.14 [0.69, 1.87]	1.48 [0.97, 2.27]
	GCSE or equivalent	5.97 [1.76, 20.16]	0.99 [0.64, 1.53]	0.80 [0.53, 1.21]
	A level or equivalent	0.10 [0.00, 3.74]	1.18 [0.78, 1.80]	1.44 [0.98, 2.13]
	Degree or higher	Ref.	-	-
Annual personal income	<£10,000	0.61 [0.29, 1.31]	1.10 [0.74, 1.65]	2.36 [1.63, 3.41]
	£10,000 - £20,000	0.24 [0.10, 0.56]	0.60 [0.41, 0.88]	1.79 [1.27, 2.51]
	>£20,000	Ref.	-	-
Self-report health	Very poor/poor	1.55 [0.58, 4.15]	0.97 [0.53, 1.79]	0.54 [0.33, 0.89]
	Average	1.09 [0.44, 2.73]	1.15 [0.76, 1.74]	0.58 [0.41, 0.82]
	Good	1.13 [0.48, 2.67]	1.17 [0.82, 1.68]	0.59 [0.43, 0.79]
	Very good	Ref.	-	-
Multiple Deprivation Measure	1- most deprived	4.80 [1.87, 12.30]	1.08 [0.61, 1.91]	1.17 [0.72, 1.88]
	2	0.68 [0.21, 2.24]	0.82 [0.51, 1.31]	1.33 [0.91, 1.94]
	3	1.45 [0.51, 4.12]	0.81 [0.51, 1.31]	1.49 [1.02, 2.18]
	4	2.20 [0.90, 5.36]	1.29 [0.89, 1.88]	1.21 [0.85, 1.72]
	5 - least deprived	Ref.	-	-
Physical activity (days per week)	None	2.74 [1.31, 5.76]	0.88 [0.58, 1.34]	0.72 [0.51, 1.02]
	Some	0.89 [0.38, 2.10]	1.15 [0.83, 1.60]	0.90 [0.68, 1.19]
	Sufficient	Ref.	-	-

Table 3: Socio-demographic and modifiable behaviour predictors of knowledge of physical activity guidelines for females

Characteristic		Don't Know OR [95% CI]	Underestimate OR [95% CI]	Overestimate OR [95% CI]
Car ownership		0.49 [0.33, 0.73]	0.98 [0.77, 1.24]	0.67 [0.53, 0.83]
Education (highest level)	No qualifications	0.94 [0.36, 2.46]	0.69 [0.42, 1.12]	1.80 [1.12, 2.91]
	GCSE or equivalent	0.92 [0.36, 2.34]	1.10 [0.76, 1.59]	1.58 [1.05, 2.38]
	A level or equivalent	0.85 [0.30, 2.42]	0.69 [0.46, 1.03]	1.17 [0.76, 1.80]
	Degree or higher	Ref.	-	-
Annual personal income	<£10,000	1.25 [0.50, 3.12]	0.97 [0.66, 1.43]	1.94 [1.26, 2.97]
	£10,000 - £20,000	6.63 [0.31, 19.11]	1.17 [0.81, 1.68]	2.21 [1.46, 3.35]
	>£20,000	Ref.	-	-
Self-report health	Very poor/poor	1.22 [0.53, 2.79]	2.71 [1.61, 4.58]	1.71 [1.03, 2.83]
	Average	0.73 [0.34, 1.56]	1.35 [0.93, 1.98]	0.92 [0.64, 1.31]
	Good	0.88 [0.45, 1.72]	1.07 [0.78, 1.48]	0.74 [0.55, 1.01]
	Very good	-	-	-
Multiple Deprivation Measure	1- most deprived	7.16 [3.47, 14.77]	2.02 [1.27, 3.23]	1.53 [0.96, 2.44]
	2	1.68 [0.81, 3.50]	1.29 [0.87, 1.92]	1.32 [0.90, 1.94]
	3	1.84 [0.87, 3.86]	1.43 [0.96, 2.13]	2.04 [1.40, 2.96]
	4	1.40 [0.71, 2.78]	1.12 [0.79, 1.60]	1.20 [0.84, 1.71]
	5 - least deprived	Ref.	-	-
Physical activity (days per week)	None	1.88 [1.10, 3.20]	1.24 [0.84, 1.83]	0.61 [0.43, 0.86]
	Some	1.06 [0.60, 1.86]	2.60 [1.93, 3.50]	1.15 [0.89, 1.50]
	Sufficient	Ref.	-	-