



NUI Galway  
OÉ Gaillimh



# Learning about Middle Childhood: surveying health and well-being among nine year olds



**Fox, K.A., Kelly, C., Molcho, M. & Nic Gabhainn, S.**

Health Promotion Research Centre,  
School of Health Sciences, NUI Galway

September 2014

Suggested citation: Fox, K.A., Kelly, C., Molcho, M. & Nic Gabhainn, S. (2014). Learning about Middle Childhood: surveying health and well-being among nine year olds. Galway: Health Promotion Research Centre, National University of Ireland, Galway.

## **Health Behaviour in School-aged Children (HBSC) Middle Childhood study**

This report is a compilation of learning and experiences from various stages of the Health Behaviour in School-aged Children (HBSC) data collection with children from the middle childhood age group (9 years of age). It has been produced in fulfilment of a commitment of the Health Promotion Research Centre as a World Health Organisation Collaborating Centre for Health Promotion Research and may be useful for researchers or practitioners working with children within this age group.

### **Background**

The Health Behaviour in School-aged Children (HBSC) survey is a cross-national research study, conducted in collaboration with the World Health Organisation (WHO) Regional Office for Europe. HBSC Ireland, based in the Health Promotion Research Centre, NUI Galway, is one of 43 countries and regions across Europe and North America that make up the HBSC Network. The study aims to gain insight into, and increase our understanding of young people's health and well-being, health behaviours and their social context.

The HBSC study is a school based survey which collects information from students through self-completion questionnaires in the classroom setting. HBSC Ireland is funded by the Department of Health and is conducted every four years. Although traditionally HBSC focused on children aged 10-18 years, in the school year 2006, when the third Irish national HBSC survey was conducted, a special request was received from the Office of the Minister for Children to expand the age profile of respondents to include a sample of nine year olds in the study. In order to collect relevant data from this age group, it was necessary to shorten the questionnaire, simplify the language used and remove a number of inappropriate questions, such as those on illicit drug use. A pilot study was conducted to elicit feedback from pupils regarding the length, wording and suitability of the questionnaire for this age group. The questionnaire was then modified based on comments received from the children and was used to collect data from children in 3<sup>rd</sup> and 4<sup>th</sup> class for the HBSC Ireland Middle Childhood Survey 2006.

## What data do we hold for Middle Childhood?

Questions	Variable name	2006	2010	2014
Are you a boy or a girl?	Gender	✓	✓	✓
What class are you in?	Class	✓	✓	✓
What month were you born?	Month of birth	✓	✓	✓
What year were you born?	Year of birth	✓	✓	✓
Were you born in Ireland?	Country of birth	✓	✓	
In which country were you born?	Country of birth			✓
In which country was your mother born?	Country of birth - Mother	✓	✓	✓
In which country was your father born?	Country of birth - Father	✓	✓	✓
What language do you most often speak at home?	Language	✓	✓	
Are you a member of the travelling community?	Travelling community	✓	✓	✓
On how many days do you usually have breakfast (more than a glass of milk or fruit juice) per week?	Breakfast frequency	✓	✓	✓
On how many days a week do you usually eat fruits?	Food frequency fruit	✓	✓	✓
On how many days a week do you usually eat vegetables?	Food frequency vegetables	✓	✓	✓
On how many days a week do you usually eat sweets (candy or chocolate)?	Food frequency sweets	✓	✓	✓
On how many days a week do you usually drink coke or other soft drinks that contain sugar?	Food frequency soft drinks	✓	✓	✓
Do you get coke or other soft drinks from your parents if you ask them for them?	Soft drink availability		✓	
Do you get sweets or chocolates from your parents if you ask them for them?	Sweets/choc availability		✓	
Do you get biscuits or pastries from your parents if you ask them for them?	Biscuits/pastries availability		✓	

Questions	Variable name	2006	2010	2014
Do you get crisps from your parents if you ask them for them?	Crisps availabilty		✓	
How much do you agree or disagree with the following: In my family there are rules at meal times that we are expected to follow	Family rules		✓	✓
How much do you agree or disagree with the following: In my family it is ok for a child to have something else to eat if he/she doesn't like the food being served?	Family rules		✓	✓
How much do you agree or disagree with the following: In my family a child should eat all the food served even if he/she doesn't like it	Family rules		✓	✓
How much do you agree or disagree with the following: In my family, manners are important at the dinner table	Family rules		✓	✓
How much do you agree or disagree with the following: In my family, we don't have to eat all meals at the kitchen or dining room table	Family rules		✓	✓
How often do you go to school or to bed hungry because there is not enough food at home?	Go to school/bed hungry	✓	✓	✓
How often do you brush your teeth?	Tooth-brushing	✓	✓	✓
Over the past 7 days, on how many days were you exercising, practising sport or playing actively for a total of at least 60 minutes per day?	PA 60+min last 7 days	✓		
Outside School Hours: How often do you usually exercise in your free time so much that you get out of breath or sweat?	Exercise outside school hours (days)	✓	✓	✓
Outside School Hours: How many hours a week do you usually exercise in your free time so much that you get out of breath or sweat?	Exercise outside school hours (hours)	✓	✓	✓
How long does it usually take you to travel to school from your home?	Active Travel		✓	✓
On a typical day is the MAIN part of your journey TO school made by...?	Active Travel		✓	✓

Questions	Variable name	2006	2010	2014
On a typical day is the MAIN part of your journey FROM school made by...?	Active Travel		✓	✓
Have you ever smoked tobacco?	Ever smoked	✓	✓	✓
How often do you smoke tobacco at present?	Current smoking	✓	✓	✓
How do you feel about school at present?	Like school	✓	✓	✓
How much do you agree or disagree with the following sentence about your school: In our school the students take part in making the rules	Students take part in making rules	✓	✓	✓
How much do you agree or disagree with the following sentence about your school: Our school is a nice place to be	School is a nice place to be	✓	✓	✓
How much do you agree or disagree with the following sentence about your school: I feel I belong at this school	Belong at school	✓	✓	✓
How much do you agree or disagree with the following sentence about your school: I feel safe at this school	Feel safe at school	✓	✓	✓
How much do you agree or disagree with the following sentence about your teacher(s): I am encouraged to express my own views in my class(es)	Encouraged to express views		✓	✓
How much do you agree or disagree with the following sentence about your teacher(s): Our teachers treat us fairly	Teachers treat us fairly		✓	✓
How much do you agree or disagree with the following sentence about your teacher(s): When I need extra help I get it	When I need extra help I get it		✓	✓
Would you say your health is....?	Self-rated health	✓	✓	✓
In general how do you feel about your life at present?	Feel happy	✓	✓	✓
Thinking about the last week..... Have you been happy with the way you are?	Happy with way you are	✓	✓	✓
Has the doctor told you or your parents that you have a health condition, illness or disability (like diabetes, asthma, allergy)?	Disability / Chronic Illness	✓	✓	✓

Questions	Variable name	2006	2010	2014
Do you take medicine (like tablets, inhaler) for your health condition, illness or disability?	Disability / Chronic Illness	✓	✓	✓
Does your health condition, sickness or disability affect your going to and taking part in school activities?	Disability / Chronic Illness	✓	✓	✓
How much do you weigh without clothes?	Weight		✓	✓
How tall are you without shoes?	Height		✓	✓
How often do you use a seatbelt when you sit in a car?	Seatbelt use	✓	✓	✓
How often have you been bullied at school in the past couple of months?	Been bullied at school	✓	✓	✓
How often have you taken part in bullying another student(s) at school in the past couple of months?	Bullied others at school		✓	✓
In the last couple of months, what did you do when you saw bullying?	Action when witnessed bullying		✓	✓
Who do you live with? Father Mother	Main home composition	✓	✓	✓
How easy is it for you to talk to the following persons about things that really bother you? Father Mother Best friend	Family Communication	✓	✓	✓
What are your parents' jobs?	Mother / father occupations	✓	✓	✓
Generally speaking I feel safe in the area where I live?	Feel safe locally	✓	✓	✓
There are good places to spend your free time in the area where you live, like leisure centres, parks, shops	Good place to spend free time	✓	✓	✓
At present, how many close male and female friends do you have? Male friends Female friends	Number of close friends	✓	✓	✓

Questions	Variable name	2006	2010	2014
How many days a week do you usually spend time with friends right after school?	Afterschool with friends	✓	✓	✓
How many evenings per week do you usually spend out with your friends?	Evenings with friends	✓	✓	✓
How many computers does your family own?	Number of computers	✓	✓	✓
Does your family own a car, van or truck?	Family car	✓	✓	✓
Do you have your own bedroom for yourself?	Own bedroom	✓	✓	✓
Does your family have a dishwasher at home?	Dishwasher			✓
How many bathrooms (room with a bath/shower or both) are in your home?	Number of bathrooms			✓
During the past 12 months, how many times did you travel away on holiday with your family? (in Ireland or abroad)	Family holiday	✓	✓	
How many times did you and your family travel out of Ireland for a holiday last year?	Family holiday			✓
Do you have an animal/pet?	Own pet	✓	✓	✓
Think about your free time over the last week. Have you been able to do things that you want to do in your free time?	Do things in your free time		✓	✓
Do you play sports?	Play sports			✓
Do you play with a club?	Club			✓
How often do you do your hobbies?	Hobbies frequency			✓
Do you prefer to play....? Indoors Outdoors	Playing indoors/outdoors			✓
Does your family play with you?	Family play with you			✓
Do you love your family?	Love family			✓

## What are the key messages from the HBSC Middle Childhood Study?

HBSC published a national report from the data collected in 2010, which incorporates the findings from the Middle Childhood Study (3<sup>rd</sup> and 4<sup>th</sup> class). Key findings are outlined below.

- **Excellent Health** - Overall, 49% of 3<sup>rd</sup> and 4<sup>th</sup> class children reported that they would say their health is excellent. There were no statistically significant differences by gender or social class and the proportion of children that reported excellent health remained stable from 2006 (47% in 2006).
- **Life at present (happiness)** - Overall, 70% of 3<sup>rd</sup> and 4<sup>th</sup> class children reported feeling very happy with their lives at present. There were no statistically significant differences by gender or social class and the proportion of children who reported feeling very happy with their lives remained stable from 2006 (72% in 2006).
- **Ever smoked tobacco** – Overall, 3% of 3<sup>rd</sup> and 4<sup>th</sup> class children reported that they have ever smoked tobacco. There were statistically significant gender differences with 5% of boys compared to 2% of girls reporting that they have ever smoked tobacco. The proportion of 3<sup>rd</sup> and 4<sup>th</sup> class children who reported that they have ever smoked tobacco is similar to 2006 (4% in 2006).
- **Current smoking status** – Overall, 1% of 3<sup>rd</sup> and 4<sup>th</sup> class children reported that they are current smokers. There were statistically significant gender differences with 2% of boys and 1% of girls reporting that they are current smokers. There were no statistically significant social class differences. Overall, the proportion of 3<sup>rd</sup> and 4<sup>th</sup> class students who reported that they are current smokers remained stable from 2006 (1% in 2006).
- **Fruit consumption** – Overall, 30% of 3<sup>rd</sup> and 4<sup>th</sup> class children reported that they eat fruit more than once a day. There were no gender differences but there were statistically significant differences across social class groups. The proportion of children that reported eating fruit more than once a day did not change from 2006 (30% in 2006).
- **Vegetable consumption** – Overall, 26% of children in 3<sup>rd</sup> and 4<sup>th</sup> class reported eating vegetables more than once a day. Gender differences were statistically significant, with girls more likely to report eating vegetables more than once a day compared to boys (29% and 23% respectively). There were no significant social class differences. There was an increase in the proportion of children who reported eating vegetables more than once a day from 2006 (21% in 2006).
- **Sweets consumption** – Overall, 28% of 3<sup>rd</sup> and 4<sup>th</sup> class children reported eating sweets once a day or more. There were no statistically significant differences by gender or social class and the proportion that reported eating sweets once a day or more remained unchanged from 2006 (28% in 2006).
- **Soft drink consumption** – Overall, 15% of 3<sup>rd</sup> and 4<sup>th</sup> class children reported drinking soft drinks daily or more. Boys (18%) were significantly more likely than girls (13%) to report drinking soft drinks daily or more. There were no statistically significant differences



across social class groups. Overall, there was a decrease in the proportion of 3rd and 4th class children who reported drinking soft drinks daily or more from 2006 (18% in 2006).

- **Not having breakfast** – Overall, 2% of 3rd and 4th class children reported not having breakfast on any day of the week. There were no statistically significant differences by gender or social class and the proportion of children reporting not having breakfast on any day of the week remained unchanged from 2006 (2% in 2006).
- **Vigorous exercise  $\geq$  4 times/week** – Overall, 70% of 3rd and 4th class children reported exercising four or more times a week, with statistically significant gender differences (72% of boys and 67% of girls). There were no statistically significant differences across social class groups and the proportion of children who reported exercising four or more times a week remained stable from 2006 (72% in 2006).
- **Physical inactivity** - Overall, 7% of 3rd and 4th class children reported participating in vigorous exercise less than weekly with no statistically significant gender differences. Children from lower social class groups were significantly more likely to report inactivity than those from other social class groups. The proportion of children reporting inactivity remained stable from 2006 (8% in 2006).
- **Tooth-brushing** – Overall, 66% of 3rd and 4th class children reported brushing their teeth more than once a day. There were statistically significant differences by gender with 69% of girls compared to 63% of boys reporting that they brush their teeth more than once a day. There were no statistically significant differences across social class groups and the proportion of children who reported brushing their teeth more than once a day remained stable from 2006 (64% in 2006).
- **Seatbelt use** – Overall, 87% of 3rd and 4th class children reported always wearing a seatbelt when in a car. There were statistically significant differences by gender with 90% of girls compared to 85% of boys reporting they always wear a seatbelt when in a car. There were no statistically significant differences across social class groups. Overall, the proportion of children who reported always wearing a seatbelt when in a car remained stable from 2006 (88% in 2006).
- **Being bullied** – Overall, 37% of 3rd and 4th class children reported ever being bullied in school in the previous couple of months. There were no statistically significant differences across gender and social class groups and the proportion of children reporting ever being bullied remained unchanged from 2006 (37% in 2006).

## **Experience and learning through the various stages of data collection with children of this age group:**

### **Middle Childhood Questionnaire Validation Study:**

After the analysis of the 2006 survey data a number of questions were highlighted that the children had made comments on such as *“don’t understand”*. In order to investigate further, a validation study of these selected questions was conducted. The validation study aimed to examine the wording and meaning of the selected questions as understood by nine year olds and also to find out what schoolchildren do when they do not understand a question when filling questionnaires. In March 2007 data were collected from two primary schools in Galway city which included a disadvantaged mixed gender school and an all-girls school. A total of 36 schoolchildren aged 8-10 years from 3<sup>rd</sup> class were involved in the study. Interviews were used as the method of data collection and were audio-recorded.

### **Questions identified as potentially problematic:**

The validation study for the Middle Childhood questionnaire identified a number of discrepancies regarding the intended meaning of certain questions and children’s understanding of the questions.

### **Are you a member of the Travelling community?**

This question was originally derived from the 2006 census form. Although the majority of children in the validation study stated they did not understand this question, it was not changed in the pilot study as it was assumed that children who are members of the Travelling community would be familiar with this term. The interviews found that the term Travelling community was being mistaken for those who travel a lot, therefore children who answered no, with this understanding in mind, still reflected their lived reality in their response.

### **How often do you usually have breakfast (more than a glass of milk or fruit juice) per week?**

The item about eating breakfast was originally split to weekdays and weekends (derived from the international HBSC research protocol). In the initial pilot study the children found it difficult to understand the two columns, as many of them have breakfast everyday therefore this item was changed to just one question with answer categories of 0 – 7 days. Those that did not understand this question correctly (approx. one third), mostly had difficulty with the contents of the brackets (*“more than a glass of milk or fruit juice”*) which appeared to incite uncertainty as to whether it was asking about breakfast or if they had consumed milk or juice. Nevertheless findings from the HBSC Ireland 2006 Middle Childhood Study showed that only 1.6% of both boys and girls aged 9-10 years did not complete this question, suggesting a relatively low level of confusion.

### **How many days a week do you usually eat or drink....? Tick one box for each line.**

Approximately half of the children in the study interpreted this question correctly. However it was noted that a small number of children took time to understand the question as they had difficulty negotiating the layout of the categories of food and response options. The remaining half of the children stated they did not understand the question, and it was evident that due to the structure/layout of the categories and response options, they did not know how to answer it. The majority of these children stated that if they were filling in this questionnaire in class and came across this question they would skip it. The HBSC Ireland 2006 Middle Childhood Study results showed that 5.7% of students did not answer the fruit variable, 11% the vegetable variable, 11.3% sweets and 8% for the coke or other soft drinks that contain sugar variable. This illustrates a difference between students' actual behaviour when faced with the questionnaire and their anticipated behaviour.

### **Some young people go to school or to bed hungry because there is not enough food at home. How often does this happen to you?**

Only a small number of the children understood this question correctly, with the majority misunderstanding it to be asking "*how often do you go to school or bed hungry*" and failed to see or take account of the second part of the question (because there is not enough food in the house), resulting in many false positive responses. However, within the context of the HBSC Ireland 2006 Middle Childhood Study the most popular response for this question was "*never*". In addition only 0.7% of the respondents did not answer this question in the survey.

### **Here are some sentences about your school. Please show how much you agree or disagree with each one? (a) "In our school the students take part in making the rules"?**

This question was changed slightly in the pilot study due to difficulties that arose; the word "statements" was substituted with the word "sentences". One third of the children did not understand this question with one or two having had difficulty understanding the meaning of "*agree*" and "*disagree*" or mixed them up. A third of the children also misunderstood the question to be asking if students obey the rules and this was reflected in comments such as "*do students stick to the rules*" and "*keeping rules*". The majority also stated that if they were filling in the questionnaire in class and came across this question they would just skip it or ask the teacher. Results from the HBSC Ireland 2006 Middle Childhood Study showed that the non-response rates for these questions were relatively low: for the question on making the rules - 3.2%, for school is a nice place to be - 2.5% for feeling they belong at school, - 2.8% and for feeling safe at school - 2.8%.

### **Thinking about the last week .... Have you been happy with the way you are?**

All the children could read this question without difficulty. However most of the pupils found difficulty understanding the meaning of the word “seldom” as one of the response options, and if they were filling in this questionnaire in class and came across this word they would skip it or ask the teacher. When the facilitator explained that the word meant “*not very often*” - some of the children suggested that phrase or “*sometimes*” would be easier to understand and should be used instead. A total of 4.6% did not answer this question in the HBSC Ireland 2006 Middle Childhood Study.

### **Has the doctor told you or your parents that you have a health condition, illness or disability (like diabetes, asthma, allergy)?**

In the pilot study children were asked “do you have a long-term illness, disability, or medical condition (like diabetes, asthma, allergy or cerebral palsy) that has been diagnosed by a doctor?” However, many pupils indicated difficulty with the word “diagnosed” and with the concept of “long-term illness”, and so the wording was changed accordingly (see question above which was used in the survey).

The majority of children had difficulty reading and understanding the words within the question such as “diabetes”/ “disability”/ “allergy”/ “condition” / “asthma”. However, despite this difficulty, approximately ten children were able to construct a meaning for the overall question that was very close to that which was intended, therefore their responses reflected their lived reality. Over half the children stated that they were unable to answer the question due to these difficult words. They also said if they were filling in this questionnaire in class and came across these words they would tick anything, skip it or ask the teacher. Within the HBSC Ireland 2006 Middle Childhood Study 1.8% of the students did not answer this question.

### **Do you take medicine (like tablets, inhaler) for your health condition, illness or disability?**

The majority of the children had difficulty with the following words “tablets”, “disability”/ “condition” and “inhaler” but yet seemed to understand the question. A handful of children misunderstood the question to mean taking medication when one is sick in general and included supplements such as cod liver oil and Actimel drinks as medications. Interestingly none of the children ticked the box (I do not have a health condition, illness or disability) even the ones who had answered no in the question beforehand. It appeared that the majority of the children did not see the connection between the questions, possibly showing low overall understanding of these questions. Within the HBSC Ireland 2006 Middle Childhood Study this response option (I do not have a health condition, illness or disability) was the most popular and 5.6% of students did not answer the question at all.

### **Does your health condition, illness or disability affect your going to and taking part in school activities?**

Some children found difficulty with the words “disability” and “health condition”, however the majority understood what this question was asking them and were able to answer accordingly. Only a handful misunderstood the question to be asking when you’re sick in general does it stop you from taking part in school activities and this was reflected in the following “*once I had to take medicine because I was sick and someone had to take my part in the play*”. Similar to the previous question, none of the children ticked the ‘I do not have a health condition, illness or disability’ response option. Results from the HBSC Ireland 2006 Middle Childhood Study showed that 5% of the students did not answer this question in the survey.

### **How often have you been bullied at school in the past couple of months?**

Words identified as difficult to understand by some of the pupils included “on purpose”/ “argue was misread as agree”/ “teased”/ “friendly” and “past couple of months”. The majority of children were able to read the explanation of bullying and understand it enough to answer the question accordingly. However, a handful of children did not understand either the explanation or the question – in these cases it was usually because they did not understand the word “bullying”. Results from the HBSC Ireland 2006 Middle Childhood Study showed that 2.6% of the students did not answer this question in the survey.

### **Who do you live with?**

This question was read and understood by all the pupils. However a small number of the children were confused by the response options when they lived with both parents. The main reasons given for this were that they had only seen ‘tick one box’ rather than seeing the full instruction, ‘tick one box for each line’. Results from the HBSC Ireland 2006 Middle Childhood Study showed that 4.5% and 2.1% of the students did not answer the father and mother variables within this question of the survey.

### **There are good places to spend your free time in the area where you live like leisure centres, parks, shops.**

The original international HBSC question was phrased; “How much do you agree or disagree that there are good places to spend your free time in the area where you live e.g. leisure centres, parks, shops.” After the pilot study this question was modified to the question outlined above which was used in the 2006 survey. Most of the children could read this question easily with only a few pupils having difficulty with reading and understanding the meaning of the word

“leisure centre”. Approximately one third of the children understood the question and were able to answer it, however one third of the pupils stated that they did not understand the question even though they could read it without too much difficulty. The remaining children unknowingly misunderstood what the question was asking them. There were many interpretations of its meaning and these included the following “*if you have spare time do you go to these places*” and “*would you like to spend your leisure time in these places*”. Within the HBSC Ireland 2006 Middle Childhood Study 1.7% of the students did not answer this question.

**At present, how many close male and female friends do you have? Please tick one box for each column.**

The majority of pupils could read this question easily with only a few having difficulty with the words “*at present*” and “*column*”. A handful of children also had difficulty with understanding and differentiating between “*male*” and “*female*”. However the biggest issue the children seemed to have with this question was with the meaning of the word “close”. Only about half of the children correctly understood this word and they mostly described it in terms of their best friend. However the rest of the pupils misunderstood the word close to mean different things such as (lives near you) and (clothes). A small number of the children did not even see the word close and just responded for friends in general. To put this into context results from the HBSC Ireland 2006 Middle Childhood Study showed that 3% of the students did not answer this question in the survey.

**During the past 12 months, how many times did you travel away on holiday with your family? (in Ireland or abroad)**

The majority of the pupils were able to read and understand this question easily with only approximately ten children who had difficulty understanding the word “*abroad*”. A small number of pupils misunderstood the question to be asking if they had travelled anywhere in the last 12 months. This was reflected in the following “*I went to visit my aunty who was sick in Dublin*”. Results from the HBSC Ireland 2006 Middle Childhood Study showed that 2.5% of the students did not answer this question in the survey.

**Outside School Hours: How often do you usually exercise in your free time so much that you get out of breath or sweat?**

The most difficult words the children found in this question included “exercise” / “breath” and “sweat” - which was usually read as sweet. Only a small number did not understand the question and the majority of the others unknowingly misunderstood it to mean how often they

exercise in school. Results from the HBSC Ireland 2006 Middle Childhood Study showed that 2.4% of the students did not answer this question in the survey.

It is interesting to note that some children understood exercise to be only specific activities such as kickboxing. Although they may have also mentioned that they run around or play catch, they did not recognise this as exercise. Some pupils also felt that they didn't sweat or get out of breath when they exercised, which meant that the responses to these questions were not reflective of their lived reality with regard to physical activity.

### **Outside School Hours: How many hours a week do you usually exercise in your free time so much that you get out of breath or sweat?**

Approximately ten children understood this question correctly. A small number understood "outside school" to mean outside in the yard at school and the majority of the others misunderstood the question to mean how many hours each day (not week) do you exercise. Some children answered per day, afterwards noticing their error, yet still struggled to calculate their total amount per week in order to adjust their answer. Other interpretations of this question referred to the length of each exercise session, and exercise in school during break time. Within the HBSC Ireland 2006 Middle Childhood Study 3.1% of the students did not answer this question in the survey.

## **Key learning and recommendations for data collection with children from the middle childhood age group:**

Overall the validation study illustrated that question comprehension may not always be assumed even in cases where the questions are answered. This was evident with the food poverty question, as many children interpreted this question as whether they went to school/bed hungry, without considering the rest of the question, 'because there is not enough food in the house'. Similarly, many children answered 'no' when asked if they were members of the Travelling community, as they rarely travelled.

The validation study also highlights the need to pilot all questions plus response options with the middle childhood age group, particularly when introducing new questions. This process is necessary to gauge the level of coherence of the concepts throughout the questionnaire. For example the majority of the pupils in the validation study found difficulty understanding the meaning of the word "seldom" as one of the response options, therefore it may be useful to reconsider the use of words/terms that although may be grammatically correct within English speaking countries, may not be widely familiar to children in this age category. Likewise, the questions on height and weight can be problematic, as many children in this age group are not aware of these measurements of their own bodies.

For children of this age, much of their time involves interpreting both written and oral instructions from adults that they may not fully understand. It is similar to any adult in a foreign country attempting to understand a different language in that if one or two words within a sentence are understood, an overall meaning is constructed around that limited understanding, which may or may not be correct. As a result, it may be important to consider that although children in this age category may be able to read the words within each question, it can be difficult to gauge whether their overall understanding of the question/instruction is consistent with that which was intended. For this reason it is also worth noting that a standard piloting of the questionnaire for this particular age group may not identify all of the potential issues with various questions, therefore it may be necessary to conduct more comprehensive pilots including discussions around question items and response options in order to ensure confidence in responses obtained.

From the experience of HBSC Ireland in conducting questionnaires with the middle childhood age group, it is evident that these children are both capable and willing to participate in this type of data collection activity. Additional research with children in middle childhood will help to further inform appropriate and age-specific methodologies.



## Dissemination of the Middle Childhood data analysis

Walker, L., Gavin, A., Kelly, C., Molcho, M., Awobiyi, D. & Nic Gabhainn, S. (2013). *Health Behaviour in School-aged Children (HBSC) Ireland 2010 Middle Childhood Study: Socio-demographic patterns in health behaviours, risk behaviours, health outcomes and social contexts of young people's health*. Galway: Health Promotion Research Centre, NUI Galway.

Department of Children and Youth Affairs (2012) *State of the Nation's Children: Ireland 2012*. Dublin: Government Publications. Available at: <http://www.dcyia.ie/>

Kelly, C., Gavin, A., Molcho, M. & Nic Gabhainn, S. (2012). *The Irish Health Behaviours in School-aged Children (HBSC) study 2010*. Dublin: Department of Health.

Brooks, A-M., Hanafin, S., Cahill, H., Nic Gabhainn, S. & Molcho, M. (2010). *State of the Nations Children 2010*. Dublin: Department of Health and Children.

Kelly, C., Molcho, M., & Nic Gabhainn, S. (2009). *Health Behaviour in School-aged Children (HBSC) Ireland 2006 Middle Childhood Study: Socio-demographic patterns in health behaviours, risk behaviours, health outcomes and social contexts of young people's health*. Dublin: The Stationery Office.

Hanafin, S., Brooks, A.-M., Macken, A., Brady, G., McKeever, R., Judge, C., Ryan, B., Nic Gabhainn, S. & Gavin, A. (2008). *State of the Nation's Children: Ireland 2008*. Dublin: The Stationery Office. [download](#) (6.66MB)

Jackson, T., Kelly, I. & Dee, A. (2008). *Kerry Life Education Project: An Evaluation*. Cork: Department of Public Health, HSE South.

Nic Gabhainn, S., Kelly, C. & Molcho, M. (2007). *The Irish health behaviour in School-aged Children (HBSC) study 2006*. Dublin: Department of Health and Children.

Hanafin, S., Brooks, A-M., McGee, H., Brady, G., Roche, G., McKeever, R., Nic Gabhainn, S. & Molcho, M. (2007). *State of the Nation's Children: Ireland 2006*. Dublin: The Stationary Office. [download](#) (6.19MB)

### Short Reports:

Nic Gabhainn, S., Molcho, M. and Kelly, C. (2008). *HBSC Ireland: frequency of smoking behaviour in middle childhood and adolescence*. Short report to the Office of Tobacco Control, Ireland. Health Promotion Research Centre, NUI Galway.