

National Child Measurement Programme: NHS Information Centre validation process for NCMP data

September 2010

FOR HEALTH AND SOCIAL CARE

Introduction

This document provides Primary Care Trusts (PCTs) with details of the process that the NHS Information Centre (the NHS IC) uses to check and validate the National Child Measurement Programme (NCMP) data that PCTs have submitted. This version relates to the 2010/11 school year.

Data validation is needed to ensure that the national dataset is of high quality before any analyses of the dataset are undertaken.

Following validation, a national report will be produced by the NHS Information Centre. This will contain both national and local (PCT/Local Authority (LA) level information and will also provide trend analysis where appropriate. In addition, the anonymised national dataset will be made available to Public Health Observatories under a Data Sharing Agreement to enable further analysis of the data by appropriate organisations at regional and local levels. (The Data Sharing Agreement ensures that the dataset could not be used to identify individuals.) Also, a reduced dataset will be made available via UK Data Archive – this dataset does not contain as much detail as the full NCMP dataset to ensure that the dataset is not disclosive.

The National Obesity Observatory (NOO) conducts secondary analysis of the NCMP data and produces an annual report which examines elements of the data that are not included as part of the NHS Information Centre annual report.

Timing

PCTs can upload their data at any time throughout the academic year in which the measurements are taken. The deadline for uploading data to the NHS IC is early September following the end of the academic year. The precise date is available in the Government's PCT guidance for the relevant NCMP year at www.dh.gov.uk/healthyliving and all PCTs are strongly urged to adhere to the deadline.

We advise PCTs to allow adequate time for data entry and validation. This process can take a number of weeks if done thoroughly. Time should be allowed for resubmissions of data if found necessary, and so should not be left to the last minute.

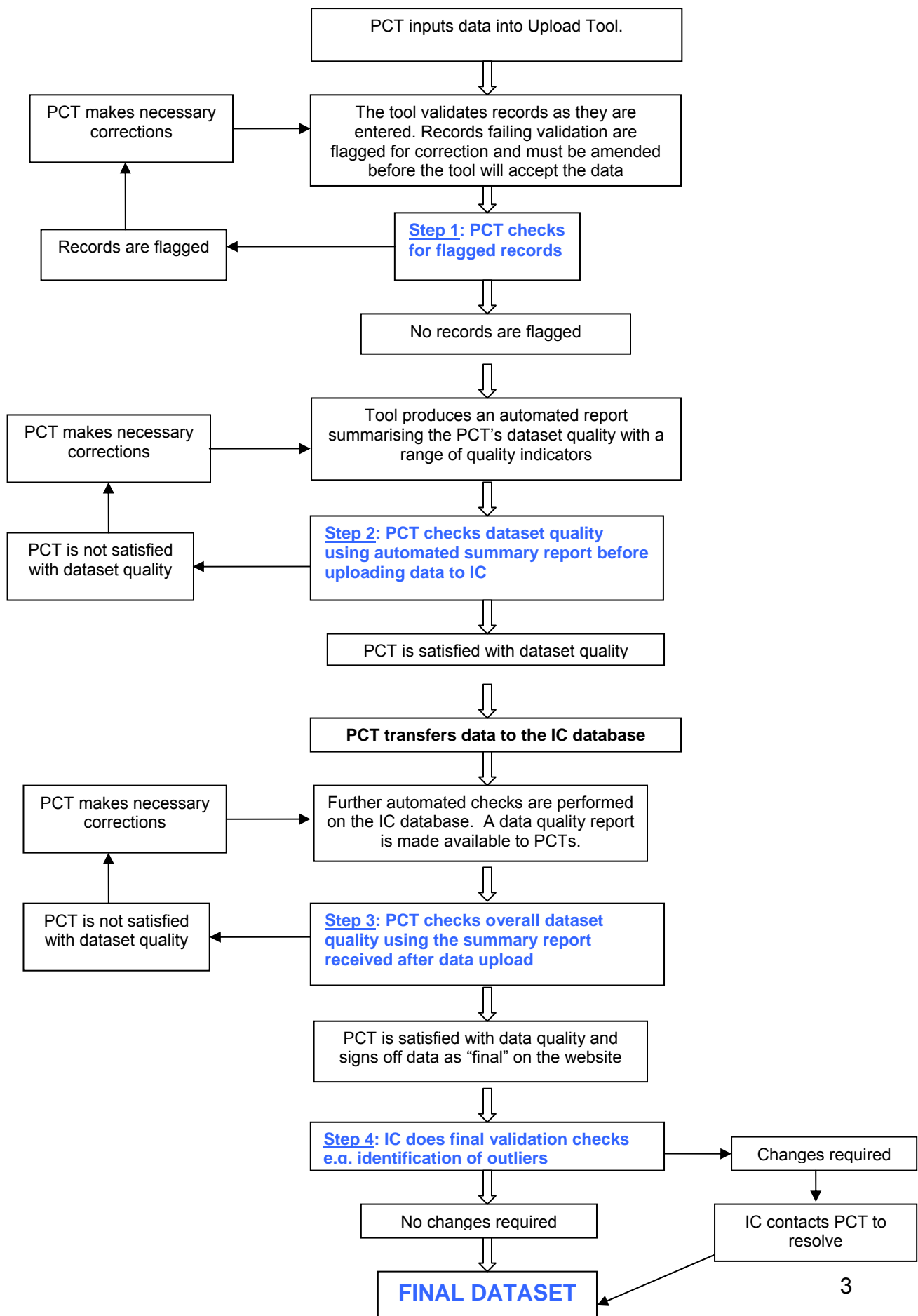
Further information

If you have any queries about use of the Upload Tool, please contact the NHS IC on:

0845 300 6016 (9am to 5pm, Monday to Friday) or on **enquiries@ic.nhs.uk**

Figure 1 (below) summarises the four validation stages that data will undergo. Detailed explanations of each stage are then provided.

Figure: Stages of validation that NCMP data undergoes



Stage 1: PCT checks and amends records flagged in Upload Tool

The NCMP Upload Tool will check data as the PCTs enters each child's record. Records failing these validation checks will be flagged and must be corrected by the PCT before data can be uploaded to the NHS IC. **Annex A** shows the conditions required for each variable to pass this stage of validation.

Stage 2: PCT checks dataset quality using summary report before uploading data

The upload tool will produce a report summarising the PCT's dataset enabling the PCT to do quality assurance on the whole dataset before upload. A list of the overall dataset quality indicators is in **Annex B**. PCTs are asked to check the data quality indicators fall within the acceptable ranges detailed in the report (as these can be good indicators of incomplete data). Details of invalid records are provided and PCTs have the opportunity to address any issues highlighted here.

Stage 3: PCT checks dataset quality using automated summary report from the NHS IC received after data upload

A range of detailed checks on data quality will be done at the NHS IC each time a PCT uploads data. PCTs will automatically be sent an email with a link to a secure website where they can access a data quality report for their results. These reports highlight where the distribution of returns are outside expected ranges, and whilst the data may be valid they can be a good indication of incomplete or erroneous data and can assist the PCTs in making sure that they have returned all data accurately.. If the PCT is happy with the report and considers their dataset to be 'final', they are asked to sign-off their data as final on the website. If the PCT is not satisfied with any aspect of the data quality, they can update their data and re-upload. **Annex C** shows the information that will be provided to PCTs at this stage.

Please note: all data is considered 'final' on deadline day whether a PCT has finalised their data on the website.

Stages 1 – 3 are designed to ensure that the PCT has uploaded complete and accurate NCMP data. The feedback reports are designed to highlight issues with data that can be corrected prior to data being uploaded as final to the NHS Information Centre.

Stage 4 (below) involves a more detailed examination of the data by the NHS Information Centre which can only be performed once the NHS IC has received final uploads from all PCTs.

These checks can highlight data being entered incorrectly or can highlight issues that relate to the schools list data. The NHS will correct these data. It may be necessary for the NHS IC to liaise with PCTs to resolve some of these issues.

It may also be possible for a PCT to re-submit data with the agreement of the NHS IC. However, the opportunity to do this will be for a very limited time and therefore PCTs are advised to submit data as early as possible to allow more time for the validation process.

As further amendments to data can happen at Stage 4, PCTs need to be aware that the automated feedback reports received at Stage 3 are provisional.

Stage 4: Final validation at the NHS IC

Following receipt of a PCT's dataset, several final checks will be done at the NHS IC. This may result in the removal or alteration of entered data. It may be necessary for the NHS IC to liaise with PCTs during this process. The NHS IC will use the contact details provided by the PCT in the Upload Tool to contact PCTs, therefore it is important that these details are entered correctly by PCTs. **Annex D** shows the checks that will be done.

Annex A: Stage 1, Conditions required for each variable to pass stage 1 validation within data upload tool

Once all records have been entered into the Upload Tool, and before data can be saved and uploaded to the NHS IC, users will be prompted to run the tool's validation check to ensure that:

- i. All records are complete, with no missing variables, as listed in **Table 1**.
- ii. Every variable satisfies the conditions shown in **Table 1**.

Any record that fails a validation check will be flagged 'Check E' or 'Check W'.

- 'Check E' is an ERROR message and indicates that a variable is missing or has failed a validation check. *A 'Check E' flag can only be removed from a record by ensuring that all variables are complete AND satisfy the validation conditions.*
- 'Check W' is a WARNING message and indicates that data is not within an expected range for one or more of the record's variables. *A 'Check W' flag can be addressed by correcting the variable (if it is incorrect) or by providing a comment in column P (if the variable is outside expected range but is actually correct). Note: this will not remove the 'Check W' but will allow the record to be transferred.*
- The reason(s) for a record failing validation will be displayed to the right of the data (columns Q-Z).

Table 1: Required variables and conditions for passing stage 1 validation check			
Variable	Validation conditions	Flag type and reason	How to correct
Records flagged as 'check E' will prevent data being uploaded to IC Records flagged as 'check W' will need to be corrected or commented on before upload			
URN (DCSF school unique reference number)	Valid URN	Check E: blank or URN is not on list of eligible schools (all state maintained primary and middle schools open during the academic year)	Add a valid URN or, if school is not on eligible school list, add school via 'add school' function
Date of birth (DOB)	Age within range 48–83 months or 120–143 months (both inclusive)	Check E: blank or age is outside range.	Correct DOB or remove ineligible children

Sex	Valid responses: M; m; male; F; f; female	Check E: blank or invalid response	Correct response for sex
Date of measurement (DOM)	Within date range 01-09 to 31-08 for that academic year	Check E: blank or DOM is outside range.	Correct DOM or remove ineligible children
Height/weight/ BMI	Measurement to have a z-score of between -3 and 4 ¹	Check E: blank. Check W: height/weight/BMI is outside the expected range.	If measurement is a valid 'extreme' record can be uploaded if a comment is provided. <i>Please carefully check measurement is correct before providing a comment.</i>
Ethnicity	Valid ethnic code The tool supports: single character NHS codes four character DCSF extended codes) Rio CHS (Child Health System) codes SystemOne CHS codes ²	Check E: blank or invalid code	Add a valid ethnic code or, if one is not available, choose 'Data Not Available' from the dropdown options See Annexes F to G
Child postcode	Postcode in valid format	Check W: blank. Records without child postcodes can be uploaded by providing a comment. Please note that child postcode is a mandatory variable for the NCMP and PCTs should aim for as much coverage as possible. PCTs must not provide school postcode if child postcode is unavailable. Check E: postcode provided but in invalid format	Valid formats (A=letter, N=number): <ul style="list-style-type: none"> • AN NAA • ANN NAA • AAN NAA • ANA NAA • AANN NAA • AANA NAA • AN NAA • AANNNA • AANANAA

¹ See Annex E for further information on z-scores

² see Annex F for a full list of the DCSF codes, Annex G for a list of the NHS codes, Annex H for a list of Rio codes and Annex I for a list of SystemOne codes

Annex B: Stage 2, Dataset validation using the data-upload tool

After the validation report has been run, and flagged records have been corrected or commented on, the PCT must run a summary report. This report provides several indicators of the quality of the PCT's dataset. It will not be possible to upload data without first running the summary report.

Table 2 below lists the PCT summary report indicators and the valid range for each variable, outside which PCTs should investigate data quality. The valid ranges are based on the typical ranges (from the 2006/07 NCMP data).

Table 2: Data-quality indicators and valid ranges	
Data quality indicator	Valid range
Ratio of Reception to Year 6 children	Ratio of Reception to Year 6 children of between 0.8:1 and 1.2:1
Ratio of boys to girls, by year	Ratio of boys to girls of between 0.9:1 and 1.1:1
Percentage of 'extreme' heights/weights/BMIs <i>Note: the tool will produce a list of records with 'extreme' heights/weights/BMI for checking</i>	Percentage of 'extreme' heights/weights/BMIs is less than 1.0%
Percentage of children in each NCMP ethnic category ³	Please check the ethnic mix of your PCT is within expected ranges ⁴
Percentage of blank child postcodes	Child postcode is a mandatory variable.
Percentage of records sharing identical child and school postcodes	PCTs must not provide school postcode if child postcode is unavailable
Percentage of duplicates <i>Note: the tool will produce a list of duplicate records for checking and removal if appropriate</i>	Records are defined as duplicates by the following methodology: 1. If child name has been provided: records sharing the same URN, first name, surname, sex and DOB 2. If child name has not been provided: records sharing the same URN, DOB, sex, DOM, height and weight
Percentage of rounded/truncated measurements, by year: <ul style="list-style-type: none"> percentage of whole number heights (e.g. 119.0cm, 178.0cm, etc) percentage of whole number weights (25.0kg, 46.0kg, etc) percentage of half number weights (34.5kg, 67.5kg, etc) 	Measurement data should be provided to one decimal place. <i>Please investigate if:</i> 1. the percentage of whole number heights is more than 15% 2. the percentage of whole number weights is more than 15% 3. the percentage of half number weights is more than 15%

³ NHS, DCSF, Rio and SystemOne codes will be mapped to NCMP ethnic category. Annexes F to I give details of the mapping

⁴ Please refer to table EE2 in ONS publication: "Population estimates by ethnic group, mid-2007 (experimental)" (<http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=14238>). This provides estimated resident population by ethnic group, age and sex split into LA upper and lower tier and GORs.

List of schools within PCT's boundary where no measurements were provided	Please check that all collected data has been entered into the data-capture tool
List of schools where the school headcount in a year is less than the number of measurements taken in that year.	School year headcount should always be more than or equal to the number of measurements taken in that year <i>i.e. the participation rate for each school, in each year, should not exceed 100%.</i> Please return to the school list and check headcounts for all listed schools. Please note: School headcount figures are used to validate the number of children the PCT has claimed are eligible (see below).
<p><u>Number of eligible pupils</u> For each year, the tool will check that (B) = (A) + (C)</p> <p>Where: (A) is the number of children that the PCT has claimed are eligible for measurement. <i>This is provided by the PCT in the supplementary information sheet of the tool and is the number of pupils, without special educational needs (SEN), attending eligible primary and middle schools within the PCT boundary. The PCT should exclude children attending independent or special schools from this figure as well as special school pupils who are educated in maintained, non-special, schools.</i></p> <p>(B) is the sum of the school-level headcounts. <i>This is the sum of the figures provided by the PCT in the school list sheet. This automated sum will include headcounts from any independent, special and private schools that the PCT has added</i></p> <p>(C) is the number of pupils included in the school headcounts who were not eligible for measurement. <i>This is provided by the PCT in the supplementary information sheet of the tool and gives the number of children, in the PCT's edited schools list who were not eligible for measurement.</i></p>	<p>Where (B) ≠ (A) + (C)</p> <p>PCTs will be required to either:</p> <ol style="list-style-type: none"> 1. correct (A), (B) or (C); 2. provide an explanation. <i>Note: the only likely valid explanation is that there are special or independent school headcounts in (B) but these children have been correctly excluded from (A).</i>

<p><i>Note: the only valid reason for a child being counted in the school headcount, but not being eligible for measurement, is that the child has special educational needs and is unable to be weighed or measured or pupils in independent or special schools that have been added to the schools list.</i></p>	
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Annex C: Stage 3: Automated feedback summary report from the NHS IC after upload

After a PCT has uploaded data to the NHS IC, an email will be sent to the two contacts that the PCT entered into the tool (the person responsible for data entry and the person responsible for NCMP at the PCT).

The email will provide a link to a secure website where the PCT can access a report showing data-quality indicators for their uploaded dataset. These consist of a number of reports that provide information on the completeness of the data and can highlight data that falls outside the expected range. Whilst the data may be valid, these reports can be a good indicator of incomplete data or data entered incorrectly and should be considered by the PCT. If the PCT is satisfied with data quality and consider their uploaded dataset to be 'final', then they must confirm this via a button on the website.

If the PCT is not satisfied with the data quality—for example they feel their participation rate is lower than they expected—they can upload a revised dataset. There is no limit to the number of times a PCT can upload data before the deadline (2nd September 2011 for submission of 2010/11 data). However, once a PCT has confirmed their dataset is 'final' on the website, they will not normally be able to upload again. If necessary, this block can be removed by contacting the NHS IC.

All data will become 'final' on deadline day, regardless of whether they have 'signed off' the data. The function to allow PCTs to 'sign off' their data early is to allow more time for the validation process with the NHS IC.

The summary report will provide the following information:
(Please note these are not final figures as some data might change following further validation undertaken by the NHS IC at Stage 4 - further details below).

1. Prevalence rates by school year (the proportion of overweight and obese children).
2. Total number of records uploaded (by year and sex).
3. Number of records with out of range heights/weights/BMI, (which will be removed) by year and sex. Note: all records with a z-score of more than 7 or less than -7 will be removed. The report will produce a list of record numbers to enable the PCT to check these records within their tool and make corrections.
4. Number of records from independent and private school or Special Educational Needs (SEN) pupils⁵ that will be excluded from the final prevalence and participation rate calculations.
5. Total number of valid records by year and sex: derived by subtracting the number of records with out of range heights/weights/BMI (see 3 above) and the number of records from independent and private schools (see 4 above) from the number of records uploaded (see 2 above).

⁵ Although there is no requirement for PCTs to measure children at independent schools such measurement is encouraged where it is possible, and data on such children can be included in the data submission to the NHS Information Centre. These records will be excluded from the prevalence and participation rate calculations in the national report but will be provided back to PCTs as part of their final cleaned dataset to allow local level analyses.

6. Total number of children eligible for measurement, by year, after validation via comparison to school list (**annex B**). (Note that further validation of these figures can also occur in Stage 4.)
7. Participation rate by year: derived by dividing the total number of valid records (see 5 above) by the total number of eligible children (see 6 above) for each school year.
8. Ratio of boys to girls measured, by year: derived by dividing the number of valid records for boys (see 5 above) by the number of valid records for girls (see 5 above). *This information is provided to enable the PCT to check the data quality of the sex variable. If the ratio of boys to girls is less than 0.9:1 or greater than 1.1:1, the PCT should seek to identify any valid reasons for a substantial difference between the number of boys and girls measured.* There may be valid reasons for this, however, these can be good indicators of incomplete data where the measurements might have been taken within a school but the data not entered via the upload tool.
9. Ratio of Reception to Year 6 children measured: derived by dividing the total number of valid records in Reception (see 5 above) by the total number of valid records in Year 6 (5). *This information is provided to enable the PCT to check the data quality of the Data of Birth (DOB) variable. When the ratio of Reception to Year 6 is less than 0.8:1 or greater than 1.2:1, the PCT should check that there are valid reasons for the difference between the numbers of children measured in each year and that this has not arisen due to data quality issues such as dates of birth entered incorrectly .*
10. Total number of records with a blank child postcode.
11. Percentage of records with a blank child postcode: derived by dividing the total number of records with a blank postcode (see 10 above) by the total number of valid records (see 5 above).
12. Number of records with whole number heights, by year.
13. Percentage of whole number heights, by year: derived by dividing the total number of records with a whole number height (see 12 above) by the total number of valid records (see 5 above). Note: mathematically this would be expected to be around 10% - if the percentage was higher than 10% the PCT might want to check that the height records have been entered correctly (to 1 decimal place). This is particularly important as a child's height needs to be accurate to ensure that the child's BMI is calculated correctly .
14. Number of records with whole number weights, by year.
15. Percentage of whole number weights, by year: derived by dividing total number of whole number weights (see 14) by the total number of valid records (see 5). Note: mathematically this would be expected to be around 10% - if the percentage was higher than 10% the PCT might want to check that the weight records have been entered correctly (to 1 decimal place). This is particularly important as a child's weight needs to be accurate to ensure that the child's BMI is calculated correctly.
16. Number of records with half number weights, by year.
17. Percentage of half number weights, by year: derived by dividing the total number of records with a half number weight (see 16) by the total number of valid records (see 5). Note: mathematically this would be expected to be around 10% - if the percentage was higher the PCT might want to check that the weight records have been entered correctly (to 1 decimal place) and have not been rounded to half kilograms.
18. Percentage of records sharing identical child and school postcodes. It is unlikely that a child would have the same postcode as the school. A high number of matches could indicate an error on input.

19. Number of records with 'extreme' child home to school distance. Note: this is the distance between the central point of the child Lower Super Output Area (LSOA) and the school postcode. Extreme is defined as being 30km or more.
20. Percentage of records with 'extreme' child home to school distance: derived by dividing the number of records with extreme child home to school distance (see 19) by the total number of valid records (see 5).
21. A list of schools within the PCT's boundary for which no data have been returned.
22. A list of schools that the PCT has reassigned from another PCT along with the name of the original PCT (i.e. the school is in one PCT's postcode boundary but has had data uploaded for it from another PCT).

Annex D: Stage 4: Final validation at the NHS IC

Once a PCT has checked the automated report and confirmed that they consider the data uploaded to be their 'final' dataset, further detailed checks will be done at the NHS IC. The NHS IC may need to contact PCTs directly about any further validation issues. The NHS IC will use contact details provided in the Upload tool to contact PCTs, and as such, it is important that PCTs ensure contact details are entered accurately.

The following checks will be done at the NHS IC:

1. Check for any extreme values not identified by the z-score check. This may result in the removal of some records from the analysis (and the participation rates).
2. Check quality of child postcode variable:
 - 'extreme' child to school distances;
 - percentage of records with identical child and school postcodes.

Any records where the child to school distance is over 60km will be removed from analysis.

If greater than 10% of records have an identical child and school postcode, the child postcode of these records will be deleted and they will be treated as records with missing child postcodes.
3. Check if any schools have been uploaded by more than one PCT.. If this has occurred, the NHS IC will approach both PCTs to identify the PCT the school should properly be coded under and remove the school from the erroneous PCT.
4. Check that any schools that PCTs have removed from their school list have been assigned by another PCT. In cases where this has not happened, the school will be reassigned back to the original PCT and participation rates adjusted accordingly.
5. Cross reference any schools claimed to be closed by the PCT against Edubase (<http://www.edubase.gov.uk>). In cases where the school was actually found to be open for at least part of the academic year, the school will be reassigned back to the PCT and participation rates adjusted accordingly
6. Removal of any duplicate records not captured by the duplicate removal function in the Upload Tool

If necessary, and with agreement from the NHS IC, it may be possible for PCTs to make further changes to their data in view of these final checks and re-upload their data to the NHS IC. However, the timescale to allow this will be very short. PCTs are therefore encouraged to submit data as early as possible to the NHS IC prior to the deadline to allow more time for final detailed validation by the NHS IC.

Note on Participation Rate

As can be seen from the validation process above, there are a number of items in Stage 4 which may cause the data eventually published in the NHS IC's annual NCMP report to differ from the provisional summary data accessible in the automated summary feedback report.

This can have an effect on data reported back to PCTs earlier in the process, including participation rates. These rates could be altered in a number of ways that could affect the denominator (the number of eligible pupils), and/or the numerator (the number of pupils with valid measurements).

The denominator could be affected by any changes to the schools list for a PCT (eg a school claimed to be closed being found to be open) The numerator could be affected by any record being removed if found to be a duplicate or if found to be invalid.

In order to ensure that the participation rates that are displayed in the automated feedback reports are carried forward to the NHS IC annual NCMP publication, PCTs are encouraged to ensure that the data is entered is complete and accurate.

Annex E: Calculation of extreme values

Since children's height and weight are dependent on age and sex, height and weight measurements must be standardised to take these factors into account. The standardised value is called a z-score and indicates how far, and in what direction, the measurement deviates from the average (mean) for that age and sex. The following formula is used to standardise height, weight and BMI:

For every measurement, age (in months) and sex, there exists a 'growth curve'. This provides values of L, M and S to allow the measurement z-score to be calculated:

$$z = \frac{\left(\frac{y}{M}\right)^L - 1}{LS}$$

where:

y = Measurement

L = Coefficient of skewness

M = Average (median) BMI for that age and sex

S = Coefficient of variation

This is called the 'Cole's LMS Method'⁶.

High and low z-scores (i.e. measurements that are significantly higher or lower than the mean) are less likely to occur and indicate extreme values. The data-capture tool will flag as 'extremes' all records with a height, weight or BMI z-score of less than -3 and more than 4. Measurements outside this range could be valid but should be checked, since they are unlikely to occur. The final national dataset has less than 0.5% of records with height, weight or BMI z-scores outside the range -3 to 4.

Please note that records with height, weight or BMI z-scores higher than 7 or lower and -7 will be excluded from a PCT's dataset. These records are identified to PCTs as being flagged for exclusion in the data quality report prior to sign off as final. For NCMP 2007/08, out of the 976,000 records submitted by PCTs, 453 records were excluded because the height z-scores were outside the -7 to 7 range. The corresponding figures for weight and BMI were 149 and 457 respectively. Altogether there were 643 records which showed at least one z-score outside this range, which is less than the sum of the three individual categories, due to overlap.

⁶ Growth monitoring with the British 1990 growth reference. Cole *Arch Dis Child*.1997; **76**: 47–49.

Annex F: Four-character DCSF ethnicity codes

DfES Extended Codes	Approved Extended Categories	DfES Main Code	Sub- Category	Main Category	Further Comments
WBRI	White - British	WBRI	White - British	White	Main code (WBRI) may not be used if any of the extended categories below (WCOR-WWEL) are used.
WCOR	White - Cornish	WBRI	White - British	White	
WENG	White - English	WBRI	White - British	White	
WSCO	White - Scottish	WBRI	White - British	White	
WWEL	White - Welsh	WBRI	White - British	White	
WOWB	Other White British	WBRI	White - British	White	If LAs collect information for "White - British" pupils using any of the extended categories above (WCOR-WWEL), this category must be used as a catch all for all other White pupils within the main "White - British" category. If used, cannot have category "White - British" (WBRI).
WIRI	White - Irish	WIRI	White - Irish	White	
WIRT	Traveller of Irish Heritage	WIRT	Traveller of Irish Heritage	White	
WOTH	Any Other White Background	WOTH	Any Other White Background	White	Main code (WOTH) may not be used if any of the extended categories below (WALB-WWEU) are used.
WALB	Albanian	WOTH	Any Other White Background	White	Excluding Kosovan.
WBOS	Bosnian-Herzegovinian	WOTH	Any Other White Background	White	
WCRO	Croatian	WOTH	Any Other White Background	White	
WGRE	Greek/ Greek Cypriot	WOTH	Any Other White Background	White	If LAs do not wish to distinguish between pupils of Greek and Greek Cypriot heritage they may place all Greek/ Greek Cypriot in this category. If used, cannot have categories "Greek" (WGRK) or "Greek Cypriot" (WGRC).
WGRK	Greek	WOTH	Any Other White Background	White	If used, cannot have category "Greek/ Greek Cypriot" (WGRE). If used, must also have category "Greek Cypriot" (WGRC).
WGRC	Greek Cypriot	WOTH	Any Other White Background	White	If used, cannot have category "Greek/ Greek Cypriot" (WGRE). If used, must also have category "Greek" (WGRK).
WITA	Italian	WOTH	Any Other White Background	White	
WKOS	Kosovan	WOTH	Any Other White Background	White	
WPOR	Portuguese	WOTH	Any Other White Background	White	
WSER	Serbian	WOTH	Any Other White Background	White	
WTUR	Turkish/ Turkish Cypriot	WOTH	Any Other White Background	White	If LAs do not wish to distinguish between pupils of Turkish and Turkish Cypriot heritage they may place all Turkish/ Turkish Cypriot in this category. If used, cannot have categories "Turkish" (WTUK) or "Turkish Cypriot" (WTUC).
WTUK	Turkish	WOTH	Any Other White Background	White	If used, cannot have category "Turkish/ Turkish Cypriot" (WTUR). If used, must also have category "Turkish Cypriot" (WTUC).
WTUC	Turkish Cypriot	WOTH	Any Other White Background	White	If used, cannot have category "Turkish/ Turkish Cypriot" (WTUR). If used, must also have category "Turkish" (WTUK).
WEUR	White European	WOTH	Any Other White Background	White	If LAs do not collect information on White European pupils on the basis of country of origin or East/ West European, they may place all White European pupils here.
WEEU	White Eastern European	WOTH	Any Other White Background	White	Including Russian, Latvian, Ukrainian, Polish, Bulgarian, Czech, Slovak, Lithuanian, Montenegrin and Romanian.
WWEU	White Western European	WOTH	Any Other White Background	White	Including Italian, French, German, Spanish, Portuguese and Scandinavian.
WOTW	White Other	WOTH	Any Other White Background	White	If LAs collect information for "Any Other White Background" pupils using any of the extended categories above (WALB-WWEU), this category must be used as a catch all for all other White pupils within the main "Any Other White Background" category. If used, cannot have category "Any Other White Background" (WOTH).
WROM	Gypsy / Roma	WROM	Gypsy / Roma	White	This category includes pupils who identify themselves as Gypsies and or Romanies, and or Travellers, and or Traditional Travellers, and or Romanichals, and or Romanichal Gypsies and or Welsh Gypsies / Kaale, and or Scottish Travellers / Gypsies, and or Roma. It includes all children of a Gypsy ethnic background or Roma ethnic background, irrespective of whether they are nomadic, semi nomadic or living in static accommodation. It should not include Fairground (Showman's) children; the children travelling with circuses; or the children of New Travellers or Bargees unless, of course, their ethnic status is that which is mentioned above.
MWBC	White and Black Caribbean	MWBC	White and Black Caribbean	Mixed / Dual Background	
MWBA	White and Black African	MWBA	White and Black African	Mixed / Dual Background	
MWAS	White and Asian	MWAS	White and Asian	Mixed / Dual Background	Main code (MWAS) may not be used if any of the extended categories below (MWAP-MWAI) are used.
MWAP	White and Pakistani	MWAS	White and Asian	Mixed / Dual Background	
MWAI	White and Indian	MWAS	White and Asian	Mixed / Dual Background	
MWAO	White and Any Other Asian Background	MWAS	White and Asian	Mixed / Dual Background	If LAs collect information for "White and Asian" pupils using any of the extended categories above (MWAP-MWAI), this category must be used as a catch all for all other Mixed/Dual Background pupils within the main "White and Asian" category. If used, cannot have category "White and Asian" (MWAS).
MOTH	Any Other Mixed Background	MOTH	Any Other Mixed Background	Mixed / Dual Background	Main code (MOTH) may not be used if any of the extended categories below (MAOE-MWCH) are used.
MAOE	Asian and Any Other Ethnic Group	MOTH	Any Other Mixed Background	Mixed / Dual Background	
MABL	Asian and Black	MOTH	Any Other Mixed Background	Mixed / Dual Background	
MACH	Asian and Chinese	MOTH	Any Other Mixed Background	Mixed / Dual Background	
MBOE	Black and Any Other Ethnic Group	MOTH	Any Other Mixed Background	Mixed / Dual Background	
MBCH	Black and Chinese	MOTH	Any Other Mixed Background	Mixed / Dual Background	
MCOE	Chinese and Any Other Ethnic Group	MOTH	Any Other Mixed Background	Mixed / Dual Background	
MWOE	White and Any Other Ethnic Group	MOTH	Any Other Mixed Background	Mixed / Dual Background	
MWCH	White and Chinese	MOTH	Any Other Mixed Background	Mixed / Dual Background	
MOTM	Other Mixed Background	MOTH	Any Other Mixed Background	Mixed / Dual Background	If LAs collect information for "Any Other Mixed Background" pupils using any of the extended categories above (MAOE-MWCH), this category must be used as a catch all for all other Mixed/Dual Background pupils within the main "Any Other Mixed Background" category. If used, cannot have category "Any Other Mixed Background" (MOTH).
AIND	Indian	AIND	Indian	Asian or Asian British	
APKN	Pakistani	APKN	Pakistani	Asian or Asian British	Main code (APKN) may not be used if any of the extended categories below (AMPK-AKPA) are used.
AMPK	Mirpuri Pakistani	APKN	Pakistani	Asian or Asian British	
AKPA	Kashmiri Pakistani	APKN	Pakistani	Asian or Asian British	
AOPK	Other Pakistani	APKN	Pakistani	Asian or Asian British	If LAs collect information for "Pakistani" pupils using any of the extended categories above (AMPK-AKPA), this category must be used as a catch all for all other Pakistani pupils within the main "Pakistani" category. If used, cannot have category "Pakistani" (APKN).
ABAN	Bangladeshi	ABAN	Bangladeshi	Asian or Asian British	

AOTH	Any Other Asian Background	AOTH	Any Other Asian Background	Asian or Asian British	Main code (AOTH) may not be used if any of the extended categories below (AAFR-ASRO) are used.
AAFR	African Asian	AOTH	Any Other Asian Background	Asian or Asian British	Including East and South African Asians.
AKAO	Kashmiri Other	AOTH	Any Other Asian Background	Asian or Asian British	Kashmiri respondents not wishing to be classified under Asian Pakistani should use this category.
ANEP	Nepali	AOTH	Any Other Asian Background	Asian or Asian British	
ASNL	Sri Lankan Sinhalese	AOTH	Any Other Asian Background	Asian or Asian British	All other Sinhalese pupils should be placed wherever appropriate in the categories above. If used MUST also have categories 'Sri Lankan Tamil' (ASLT) and 'Sri Lankan Other' (ASRO).
ASLT	Sri Lankan Tamil	AOTH	Any Other Asian Background	Asian or Asian British	All other Tamil pupils should be placed wherever appropriate in the categories above. If used MUST also have categories 'Sri Lankan Sinhalese' (ASNL) and 'Sri Lankan Other' (ASRO).
ASRO	Sri Lankan Other	AOTH	Any Other Asian Background	Asian or Asian British	If used MUST also have categories 'Sri Lankan Sinhalese' (ASNL) and 'Sri Lankan Tamil' (ASLT).
AOTA	Other Asian	AOTH	Any Other Asian Background	Asian or Asian British	If LAs collect information for 'Any Other Asian Background' pupils using any of the extended categories above (AAFR-ASRO), this category must be used as a catch all for all other Asian pupils within the main 'Any Other Asian Background' category. If used, cannot have category 'Any Other Asian Background' (AOTH).
BCRB	Black Caribbean	BCRB	Black Caribbean	Black or Black British	Including Antigua and Barbuda, Bahamas, Barbados, Dominica, Grenada, Guyana, Jamaica, St Kitts and Nevis, St Lucia, St Vincent & Grenadines, Trinidad and Tobago.
BAFR	Black - African	BAFR	Black - African	Black or Black British	Main code (BAFR) may not be used if any of the extended categories below (BANN-BSUD) are used.
BANN	Black - Angolan	BAFR	Black - African	Black or Black British	
BCON	Black - Congolese	BAFR	Black - African	Black or Black British	
BGHA	Black - Ghanaian	BAFR	Black - African	Black or Black British	
BNGN	Black - Nigerian	BAFR	Black - African	Black or Black British	
BSLN	Black - Sierra Leonean	BAFR	Black - African	Black or Black British	
BSOM	Black - Somali	BAFR	Black - African	Black or Black British	
BSUD	Black - Sudanese	BAFR	Black - African	Black or Black British	Including Sudanese of Egyptian origin.
BAOF	Other Black African	BAFR	Black - African	Black or Black British	Including Black South African, Zimbabwean, Ethiopian, Rwandan and Ugandan. If LAs collect information for 'Black - African' pupils using any of the extended categories above (BANN-BSUD), this category must be used as a catch all for all other Black African pupils within the main 'Black - African' category. If used, cannot have category 'Black - African' (BAFR).
BOTH	Any Other Black Background	BOTH	Any Other Black Background	Black or Black British	Main code (BOTH) may not be used if any of the extended categories below (BEUR-BNAM) are used.
BEUR	Black European	BOTH	Any Other Black Background	Black or Black British	
BNAM	Black North American	BOTH	Any Other Black Background	Black or Black British	Include Black North American and Canadian.
BOTB	Other Black	BOTH	Any Other Black Background	Black or Black British	If LAs collect information for 'Any Other Black Background' pupils using any of the extended categories above (BEUR-BNAM), this category must be used as a catch all for all other Black pupils within the main 'Any Other Black Background' category. If used, cannot have category 'Any Other Black Background' (BOTH).
CHNE	Chinese	CHNE	Chinese	Chinese	Main code (CHNE) may not be used if any of the extended categories below (CHKC-CTWN) are used.
CHKC	Hong Kong Chinese	CHNE	Chinese	Chinese	
CMAL	Malaysian Chinese	CHNE	Chinese	Chinese	
CSNG	Singaporean Chinese	CHNE	Chinese	Chinese	
CTWN	Taiwanese	CHNE	Chinese	Chinese	
COCH	Other Chinese	CHNE	Chinese	Chinese	If LAs collect information for 'Chinese' pupils using any of the extended categories above (CHKC-CTWN), this category must be used as a catch all for all other Chinese pupils within the main 'Chinese' category. If used, cannot have category 'Chinese' (CHNE).
OOTH	Any Other Ethnic Group	OOTH	Any Other Ethnic Group	Any Other Ethnic Group	Main code (OOTH) may not be used if any of the extended categories below (OAFG-OYEM) are used.
OAFG	Afghan	OOTH	Any Other Ethnic Group	Any Other Ethnic Group	
OARA	Arab Other	OOTH	Any Other Ethnic Group	Any Other Ethnic Group	Include Palestinian, Kuwaiti, Jordanian and Saudi Arabian.
OEGY	Egyptian	OOTH	Any Other Ethnic Group	Any Other Ethnic Group	
OFIL	Filipino	OOTH	Any Other Ethnic Group	Any Other Ethnic Group	
OIRN	Iranian	OOTH	Any Other Ethnic Group	Any Other Ethnic Group	
OIRQ	Iraqi	OOTH	Any Other Ethnic Group	Any Other Ethnic Group	
OJPN	Japanese	OOTH	Any Other Ethnic Group	Any Other Ethnic Group	
OKOR	Korean	OOTH	Any Other Ethnic Group	Any Other Ethnic Group	
OKRD	Kurdish	OOTH	Any Other Ethnic Group	Any Other Ethnic Group	Include Kurdish pupils from Iraq, Iran and Turkey.
OLAM	Latin/ South/ Central American	OOTH	Any Other Ethnic Group	Any Other Ethnic Group	Include all pupils from Central/ South America, Cuba and Belize.
OLEB	Lebanese	OOTH	Any Other Ethnic Group	Any Other Ethnic Group	
OLIB	Libyan	OOTH	Any Other Ethnic Group	Any Other Ethnic Group	
OMAL	Malay	OOTH	Any Other Ethnic Group	Any Other Ethnic Group	Including Malaysian other than Malaysian Chinese.
OMRC	Moroccan	OOTH	Any Other Ethnic Group	Any Other Ethnic Group	
OPOL	Polynesian	OOTH	Any Other Ethnic Group	Any Other Ethnic Group	Including Fijian, Tongan, Samoan and Tahitian.
OTHA	Thai	OOTH	Any Other Ethnic Group	Any Other Ethnic Group	
OVIE	Vietnamese	OOTH	Any Other Ethnic Group	Any Other Ethnic Group	
OYEM	Yemeni	OOTH	Any Other Ethnic Group	Any Other Ethnic Group	
OOEG	Other Ethnic Group	OOTH	Any Other Ethnic Group	Any Other Ethnic Group	If LAs collect information for 'Any Other Ethnic Group' pupils using any of the extended categories above (OAFG-OYEM), this category must be used as a catch all for all other pupils within the main 'Any Other Ethnic Group' category. If used, cannot have category 'Any Other Ethnic Group' (OOTH).
REFU	Refused	REFU	Refused	Refused	
NOBT	Information Not Yet Obtained	NOBT	Information Not Yet Obtained	Information Not Yet Obtained	

Annex G: Single-character NHS codes

White

- A British
- B Irish
- C Any other White background

Mixed

- D White and Black Caribbean
- E White and Black African
- F White and Asian
- G Any other mixed background

Asian or Asian British

- H Indian
- J Pakistani
- K Bangladeshi
- L Any other Asian background

Black or Black British

- M Caribbean
- N African
- P Any other Black background

Other Ethnic Groups

- R Chinese
- S Any other ethnic group

- Z Not stated

Annex H: RiO codes

Rio Code		Mapped Code	
Rio Code	Rio Description	NHS Code	NHS Code Description
C2	White - Northern Irish	C	White Any other White background
C3	White - Other/Unspecified	C	White Any other White background
CA	White - English	C	White Any other White background
CB	White - Scottish	C	White Any other White background
CC	White - Welsh	C	White Any other White background
CD	White - Cornish	C	White Any other White background
CE	White - Cypriot (part not stated)	C	White Any other White background
CF	White - Greek	C	White Any other White background
CG	White - Greek Cypriot	C	White Any other White background
CH	White - Turkish	C	White Any other White background
CJ	White - Turkish Cypriot	C	White Any other White background
CK	White - Italian	C	White Any other White background
CL	White - Irish Traveller	C	White Any other White background
CM	White - Traveller	C	White Any other White background
CN	White - Gypsy/Romany	C	White Any other White background
CP	White - Polish	C	White Any other White background
CQ	White - All Republics of former USSR	C	White Any other White background
CR	White - Kosovan	C	White Any other White background
CS	White - Albanian	C	White Any other White background
CT	White - Bosnian	C	White Any other White background
CU	White - Croatian	C	White Any other White background
CV	White - Serbian	C	White Any other White background
CW	White - Other Republics of former Yugoslavia	C	White Any other White background
CX	White - Mixed White	C	White Any other White background
CY	White - Other European	C	White Any other White background
GA	Mixed - Black and Asian	G	Mixed Any other mixed background
GB	Mixed - Black and Chinese	G	Mixed Any other mixed background
GC	Mixed - Black and White	G	Mixed Any other mixed background
GD	Mixed - Chinese and White	G	Mixed Any other mixed background
GE	Mixed - Asian and Chinese	G	Mixed Any other mixed background
GF	Mixed - Other/Unspecified	G	Mixed Any other mixed background
LA	Asian or Asian British - Mixed Asian	L	Asian and Asian British Any other Asian background
LB	Asian or Asian British - Punjabi	L	Asian and Asian British Any other Asian background
LC	Asian or Asian British - Kashmiri	L	Asian and Asian British Any other Asian background
LD	Asian or Asian British - East African Asian	L	Asian and Asian British Any other Asian background
LE	Asian or Asian British - Sri Lanka	L	Asian and Asian British Any other Asian background
LF	Asian or Asian British - Tamil	L	Asian and Asian British Any other Asian background
LG	Asian or Asian British - Sinhalese	L	Asian and Asian British Any other Asian background
LH	Asian or Asian British - British	L	Asian and Asian British Any other Asian background
LJ	Asian or Asian British - Caribbean Asian	L	Asian and Asian British Any other Asian background
LK	Asian or Asian British - Other/Unspecified	L	Asian and Asian British Any other Asian background
PA	Black or Black British - Somali	P	Black or Black British Any other Black background
PB	Black or Black British - Mixed	P	Black or Black British Any other Black background
PC	Black or Black British - Nigerian	P	Black or Black British Any other Black background
PD	Black or Black British - British	P	Black or Black British Any other Black background
PE	Black or Black British - Other/Unspecified	P	Black or Black British Any other Black background
SA	Other Ethnic Groups - Vietnamese	S	Any other ethnic group
SB	Other Ethnic Groups - Japanese	S	Any other ethnic group
SC	Other Ethnic Groups - Filipino	S	Any other ethnic group
SD	Other Ethnic Groups - Malaysian	S	Any other ethnic group
SE	Any Other Group	S	Any other ethnic group
SF	Other Ethnic Groups - Buddhist	S	Any other ethnic group
SG	Other Ethnic Groups - Hindu	S	Any other ethnic group
SH	Other Ethnic Groups - Jewish	S	Any other ethnic group
SI	Other Ethnic Groups - Muslim	S	Any other ethnic group
SJ	Other Ethnic Groups - Sikh	S	Any other ethnic group
SK	Other Ethnic Groups - Arab	S	Any other ethnic group
SL	Other Ethnic Groups - North African	S	Any other ethnic group
SM	Other Ethnic Groups - Other Middle East	S	Any other ethnic group
SN	Other Ethnic Groups - Israeli	S	Any other ethnic group
SO	Other Ethnic Groups - Iranian	S	Any other ethnic group
SP	Other Ethnic Groups - Kurdish	S	Any other ethnic group
SQ	Other Ethnic Groups - Moroccan	S	Any other ethnic group
SR	Other Ethnic Groups - Latin American	S	Any other ethnic group
SS	Other Ethnic Groups - South/Central American	S	Any other ethnic group
ST	Other Ethnic Groups - Maur/SEyc/Mald/StHelen	S	Any other ethnic group
ZZ	Not Known (Client Refused)	Z	Not Stated
NULL	NULL	Z	Not Stated

Annex I: SystemOne Codes

SystemOne Code		Mapped Code	
SystemOne Code	SystemOne Description	NHS Code	NHS Code Description
XaJQv	British or mixed British	A	White British
XaQEa	White British	A	White British
XaJQw	Irish	B	White Irish
XaQEb	White Irish	B	White Irish
XaJQx	Other White background	C	White Any other White background
XaJRC	English	C	White Any other White background
XaJRD	Scottish	C	White Any other White background
XaJRE	Welsh	C	White Any other White background
XaJRG	Cornish	C	White Any other White background
XaJRF	Northern Irish	C	White Any other White background
XaJRh	Ulster Scots	C	White Any other White background
XaJRg	Cypriot (part not stated)	C	White Any other White background
XaJRI	Greek	C	White Any other White background
XaJRj	Greek Cypriot	C	White Any other White background
XaJRk	Turkish	C	White Any other White background
XaJRI	Turkish Cypriot	C	White Any other White background
XaJRM	Italian	C	White Any other White background
XaJSB	Irish Traveller	C	White Any other White background
XaJSC	Traveller	C	White Any other White background
XaJSD	Gypsy/Romany	C	White Any other White background
XaJSE	Polish	C	White Any other White background
XaJSF	Baltic States (Estonian or Latvian or Lithuanian)	C	White Any other White background
XaJSG	Commonwealth of (Russian) Independent States	C	White Any other White background
XaJSH	Kosovan	C	White Any other White background
XaJSI	Albanian	C	White Any other White background
XaJSJ	Bosnian	C	White Any other White background
XaJSK	Croatian	C	White Any other White background
XaJSL	Serbian	C	White Any other White background
XaJSM	Other republics which made up the former Yugoslavia	C	White Any other White background
XaJSN	Mixed Irish and other White	C	White Any other White background
	Other White European or European unspecified or Mixed European	C	White Any other White background
XaJSP	Other mixed White	C	White Any other White background
XaJSQ	Other White or White unspecified	C	White Any other White background
XaJQy	White and Black Caribbean	D	Mixed White and Black Caribbean
XaJQz	White and Black African	E	Mixed White and Black African
XaJR0	White and Asian	F	Mixed White and Asian
XaJR1	Other Mixed background	G	Mixed Any other mixed background
XaJRH	Black and Asian	G	Mixed Any other mixed background
XaJRI	Black and Chinese	G	Mixed Any other mixed background
XaJRJ	Black and White	G	Mixed Any other mixed background
XaJRK	Chinese and White	G	Mixed Any other mixed background
XaJRL	Asian and Chinese	G	Mixed Any other mixed background
XaJRM	Other Mixed or Mixed unspecified	G	Mixed Any other mixed background
XaJR2	Indian or British Indian	H	Asian and Asian British Indian
XaJR3	Pakistani or British Pakistani	J	Asian and Asian British Pakistani
XaJR4	Bangladeshi or British Bangladeshi	K	Asian and Asian British Bangladeshi
XaJR5	Other Asian background	L	Asian and Asian British Any other Asian background
XaJRO	Punjabi	L	Asian and Asian British Any other Asian background
XaJRP	Kashmiri	L	Asian and Asian British Any other Asian background
XaJRQ	East African Asian	L	Asian and Asian British Any other Asian background
XaJRR	Sri Lankan	L	Asian and Asian British Any other Asian background
XaJRS	Tamil	L	Asian and Asian British Any other Asian background
XaJRT	Sinhalese	L	Asian and Asian British Any other Asian background
XaJRV	Caribbean Asian	L	Asian and Asian British Any other Asian background
XaJRU	British Asian	L	Asian and Asian British Any other Asian background
XaJRN	Mixed Asian	L	Asian and Asian British Any other Asian background
XaJRW	Other Asian or Asian unspecified	L	Asian and Asian British Any other Asian background
XaJR6	Caribbean	M	Black or Black British Caribbean
XaJR7	African	N	Black or Black British African
XaJR8	Other Black background	P	Black or Black British Any other Black background
XaJRX	Somali	P	Black or Black British Any other Black background
XaJRZ	Nigerian	P	Black or Black British Any other Black background
XaJRa	Black British	P	Black or Black British Any other Black background
XaJRY	Mixed Black	P	Black or Black British Any other Black background
XaJRB	Other Black or Black unspecified	P	Black or Black British Any other Black background
XaJR9	Chinese	R	Chinese
XaJRA	Other	S	Any other ethnic group
XaJRC	Vietnamese	S	Any other ethnic group
XaJRd	Japanese	S	Any other ethnic group
XaJRe	Filipino	S	Any other ethnic group
XaJRF	Malaysian	S	Any other ethnic group
XaJSc	Buddhist	S	Any other ethnic group
XaJSd	Hindu	S	Any other ethnic group
XaJSR	Jewish	S	Any other ethnic group
XaJSe	Muslim	S	Any other ethnic group
XaJSf	Sikh	S	Any other ethnic group
XaJSS	Arab	S	Any other ethnic group
XaJST	North African	S	Any other ethnic group

SystemOne Code		Mapped Code	
SystemOne Code	SystemOne Description	NHS Code	NHS Code Description
XaJSU	Middle Eastern (excluding Israeli, Iranian and Arab)	S	Any other ethnic group
XaJSV	Israeli	S	Any other ethnic group
XaJSW	Iranian	S	Any other ethnic group
XaJSX	Kurdish	S	Any other ethnic group
XaJSY	Moroccan	S	Any other ethnic group
XaJSZ	Latin American	S	Any other ethnic group
XaJSa	South and Central American	S	Any other ethnic group
XaJSb	Multi-ethnic islands: Mauritian or Seychellois or Maldivian or St Helena	S	Any other ethnic group
XaJSg	Any other group	S	Any other ethnic group
XaJRB	Ethnic category not stated	Z	Not Stated
9S1..	White - ethnic group	C	White Any other White background
XaFwD	White British	A	White British
Xaluh	White Scottish	C	White Any other White background
Xalui	Other white British ethnic group	C	White Any other White background
XaFwE	White Irish	C	White Any other White background
XaFx2	Irish traveller	C	White Any other White background
XaFwF	Other white ethnic group	C	White Any other White background
9SA..	Other ethnic non-mixed (NMO)	S	Any other ethnic group
9SA1.	Brit. ethnic minor. spec.(NMO)	S	Any other ethnic group
9SA2.	Brit. ethnic minor. unsp (NMO)	S	Any other ethnic group
9SA5.	Other African countries (NMO)	N	Black or Black British African
9SA7.	Indian sub-continent (NMO)	H	Asian and Asian British Indian
9SA8.	Other Asian (NMO)	L	Asian and Asian British Any other Asian background
9SA9.	Irish (NMO)	C	White Any other White background
9SAC.	Other European (NMO)	C	White Any other White background
9SAD.	Other ethnic NEC (NMO)	S	Any other ethnic group
XE2Nw	Caribbean I./W.I./Guyana (NMO)	M	Black or Black British Caribbean
XM1S8	Caribbean Island (NMO)	M	Black or Black British Caribbean
XM1S9	West Indian (NMO)	H	Asian and Asian British Indian
XM1SA	Guyana (NMO)	M	Black or Black British Caribbean
XE2Nx	N African Arab/Iranian (NMO)	S	Any other ethnic group
XM1SB	North African Arab (NMO)	S	Any other ethnic group
XM1SC	Iranian (NMO)	S	Any other ethnic group
XE2Ny	E Afric Asian/Indo-Carib (NMO)	L	Asian and Asian British Any other Asian background
XM1SD	East African Asian (NMO)	L	Asian and Asian British Any other Asian background
XM1SE	Indo-Caribbean (NMO)	L	Asian and Asian British Any other Asian background
XE2Nz	Greek/Greek Cypriot (NMO)	C	White Any other White background
XM1SF	Greek (NMO)	C	White Any other White background
XM1SG	Greek Cypriot (NMO)	C	White Any other White background
XE2O0	Turkish/Turkish Cypriot (NMO)	C	White Any other White background
XM1SH	Turkish (NMO)	C	White Any other White background
XM1SI	Turkish Cypriot (NMO)	C	White Any other White background
XaFwG	Mixed ethnic census group	G	Mixed Any other mixed background
9SB..	Other ethnic, mixed origin	G	Mixed Any other mixed background
9SB1.	Other ethnic, Black/White orig	G	Mixed Any other mixed background
9SB2.	Other ethnic, Asian/White orig	F	Mixed White and Asian
9SB3.	Other ethnic, mixed white orig	C	White Any other White background
9SB4.	Other ethnic, other mixed orig	G	Mixed Any other mixed background
XaIB5	Black Caribbean and White	D	Mixed White and Black Caribbean
XaIB6	Black African and White	E	Mixed White and Black African
XaFwH	Black - ethnic group	P	Black or Black British Any other Black background
9S2..	Black Caribbean	M	Black or Black British Caribbean
XaBz7	Black West Indian	P	Black or Black British Any other Black background
XaBz8	Black Guyana	M	Black or Black British Caribbean
9S3..	Black African	N	Black or Black British African
9S4..	Black, other, non-mixed origin	P	Black or Black British Any other Black background
9S41.	Black British	P	Black or Black British Any other Black background
9S44.	Black - other African country	N	Black or Black British African
9S46.	Black Indian sub-continent	G	Mixed Any other mixed background
9S47.	Black - other Asian	G	Mixed Any other mixed background
9S48.	Black Black - other	P	Black or Black British Any other Black background
XE2Nt	Black Caribbean/W.I./Guyana	M	Black or Black British Caribbean
XE2Nu	Black N African/Arab/Iranian	P	Black or Black British Any other Black background
XM1S3	Black North African	N	Black or Black British African
XM1S4	Black Arab	P	Black or Black British Any other Black background
XM1S5	Black Iranian	P	Black or Black British Any other Black background
XE2Nv	Black East African Asian/Indo-Caribbean	L	Asian and Asian British Any other Asian background
XM1S6	Black East African Asian	L	Asian and Asian British Any other Asian background
XM1S7	Black Indo-Caribbean	P	Black or Black British Any other Black background
9S5..	Black - other, mixed	P	Black or Black British Any other Black background
9S51.	Other Black - Black/White orig	P	Black or Black British Any other Black background
9S52.	Other Black - Black/Asian orig	P	Black or Black British Any other Black background
XaFwy	Other black ethnic group	P	Black or Black British Any other Black background
XaFwz	Asian - ethnic group	L	Asian and Asian British Any other Asian background
9S6..	Indian	H	Asian and Asian British Indian
9S7..	Pakistani	J	Asian and Asian British Pakistani
9S8..	Bangladeshi	K	Asian and Asian British Bangladeshi
9T1C.	Chinese	R	Chinese
XaFx0	Other Asian ethnic group	L	Asian and Asian British Any other Asian background
XaFx1	Other ethnic group	S	Any other ethnic group

Annex J: Mapping of NHS DCSF, RiO and SytemOne ethnic codes to NCMP ethnic category

The 17 (16+1) NHS codes (annex G) map directly to the 17 NCMP categories.

The 99 DCSF extended codes are linked to 20 DCSF sub-categories together. To map these 20 sub-categories to the NCMP categories the following have been combined:

- sub-category 'Traveller of Irish Heritage' has been combined with 'White Irish';
- 'Gypsy/Roma' has been combined with 'Any Other White Background';
- 'Refused' has been combined with 'Not Stated'.

Each Rio and SystemOne ethnic code maps to one of the NHS codes (the NCMP categories are identical to the NHS categories as already mentioned). Annexes H and I show the mapping for Rio and SystemOne respectively.

PLEASE NOTE THAT ALL ETHNICITY CODES ARE CASE SENSITIVE AND MUST ALWAYS BE INPUT AS THEY APPEAR IN THE TABLES CONTAINED IN ANNEXES F TO I.