NHS Dental Epidemiology Programme
Oral Health Survey of 12 year old children in England
2008 / 2009

National protocol

Minor modifications 7th January 2009

This protocol has been produced for the 2008/09 school year NHS Dental Epidemiological Oral Health Survey of 12 year olds. It complies with the British Association for the Study of Community Dentistry diagnostic criteria for caries prevalence surveys and guidance on sampling for surveys of child dental health (1997).

BASCD

The Dental Observatory

NHS

NorthWest Public Health Observatory

1. Introduction

Primary Care Trusts are charged with the responsibility of gathering information on the health needs of the population they serve so that they may provide services to meet the identified need. This imperative is described in the Health and Social Care (Community Health and Standards) Act 2003, underpinned by Statutory Instrument 2006 number 185, and is also highlighted in Choosing Health (2004) and Choosing Better Oral Health (2005). In addition, the Water Act (2003) requires that health is monitored by Strategic Health Authorities on a four- yearly basis starting in 2007/08.

Strategic Health Authorities require PCTs to take action to achieve targets for improving oral health set in their oral health strategies. Information collected by the nationally co-ordinated dental surveys provides valuable information on the progress made towards these targets.

During the school year 2008/09 a survey of 12-year-old children will take place in all Local Authorities (LAs) and Primary Care Trusts (PCTs) in England. These surveys of caries severity and prevalence, orthodontic need and demand, and self-perception of enamel opacities among 12-year-old children are part of the NHS Dental Epidemiology Programme and provide an insight into the dental health of an important priority group.

The overall responsibility for the collection of population level data by PCT lies with Strategic Health Authorities, in conjunction with Public Health Observatories, who will performance manage the process. Responsibility for the planning of the surveys at LA and PCT level lies with Consultants in Dental Public Health, where they are in post, or other dental lead in each PCT, in consultation with the SHA Regional Dental Public Health lead. The conduct of the surveys will be the responsibility of the PCT.

PCTs must ensure that adequate provision is made for examiners to be properly trained and calibrated according to the methodology specified in the appropriate protocol.

PCTs must make timely communication with the relevant Regional Dental Epidemiology Coordinator (RDEC) to ensure full knowledge of and compliance with the protocol and in particular provide the RDEC with a complete dataset of anonymised survey data within the nationally agreed time frame, in the required format.

2. Aim of the Survey

The aim of the survey is to measure the prevalence and severity of dental caries, the need and demand for orthodontic intervention and self-perceptions of enamel opacities in 12-year-old children resident in LAs and PCTs in England, thereby:

2.1 enabling PCTs to undertake health needs assessments to support the local commissioning of dental services

2.2 providing standardised data to inform Local Authority profiles as requested by Communities and Local Government Dept.

2.3 providing standardised information for comparison locally, regionally, between countries of the UK and internationally.

2.4.1 enabling PCTs to contribute to the requirements of the Water Act (2003) with regard to monitoring dental and general health of the population on a four yearly basis.

3. Objectives

3.1 To examine 12-year-old children using caries diagnostic criteria and examination techniques based on those agreed by the British Association for the Study of Community Dentistry (BASCD), *Diagnostic criteria for caries prevalence surveys 1996/97* (Pitts *et al*., 1997) and using BASCD recommended sampling procedures described in *British Association for the Study of Community Dentistry (BASCD) guidance on sampling for surveys of child dental health. A BASCD co-ordinated dental epidemiology programme quality standard* (Pine *et al*., 1997a).

3.2 To measure the clinical and aesthetic need for orthodontic intervention using the Modified Index of Orthodontic Need (Burden et al, 2001).

3.3 To measure self-perceptions of the prevalence, severity and aesthetic impact of enamel opacities.

4. Sample

The primary sampling unit will be Local Authorities and samples also need to be taken to produce estimates for PCTs. In most cases the Local Authority and PCT will be coterminous so one sample will suffice. In the minority of cases where the PCT and LA are not coterminous careful consideration of the geographic boundaries and populations within them should be undertaken to ensure that sampling produces estimates for both Local Authorities and for Primary Care Trusts.

4.1 Survey population

The survey population is defined as all those children attending maintained schools within the Local Authority who have reached the age of twelve, but have not had their thirteenth birthday on the date of examination (Excluding special schools). In most cases this will involve children from years 7 and 8.

A minimum sample size of 250 children is required per Local Authority and per PCT, from a minimum of 20 schools, or all schools where there are fewer than 20. This is unlikely to produce a sufficiently large sample to facilitate local planning for many PCTs, in which case larger samples will be required. Where larger samples are drawn the children selected must be coded to allow weighted estimates of means to be produced where necessary. Details of these requirements and the need for local stratification will be determined by Consultants in Dental Public Health or other advisers in dental public health to Primary Care Trusts, in liaison with dental managers/directors of the agencies undertaking the surveys.

Regional NHS Epidemiological Co-ordinators must be informed of proposed sampling methods so that they can confirm their validity, before the survey commences.

4.2 Sampling procedure

Detailed guidance on the required stratified sampling procedures is given in *British Association for the Study of Community Dentistry (BASCD) guidance on sampling for surveys of child dental health. A BASCD co-ordinated dental epidemiology programme quality standard* (Pine *et al*., 1997a. Accessed as a guidance document from the information section via http://www.bascd.org/docs_info.php). Advice can be requested from Girvan Burnside on g.burnside@liv.ac.uk

Lists of all state maintained secondary or middle schools within each Local Authority area, and the numbers of pupils attending each will be required as the first stage in the sampling

process. In most instances this will provide all the schools within the PCT but, where LA and PCTs are not coterminous the geographical position of schools should be determined to allow compilation of sampling frames. The school postcode is essential in these cases.

Special schools should not be included in the main sampling frame and results from them not included in the main LA or PCT estimates.

The number of secondary schools in each LA /PCT area will dictate the sampling method required:

Where there are 6-20 schools, sample all schools
Where there are 21-40 schools, sample 20 schools
Where there are more than 40 schools, sample 25 schools, or 50% of schools, whichever is greater

A stratified sampling method which takes school size into account is described in the guidance for use where there are more than 20 schools in a LA/PCT. The school size bandings and sampling intensity described is guidance only and it may be necessary to alter this to accommodate the local situation. *For example* schools could be divided into those with fewer than 60 children aged 12, those with 61-100 and those with 101 or more. All of the children in the smaller school would be sampled, while 1 in 2 or 1 in 3 of the medium size and 1 in 4 of the larger ones are sampled.

Regardless of the selected size bandings and intensities it is still essential to calculate the correct proportions of children to be selected from small, medium and large schools in order to ensure the sample is representative of the distribution in the overall population. This is the normal process for the quota sampling techniques used for primary schools. Four tables need to be constructed showing how the sample will be structured and copies of these, together with details of the sampling methodology, must be sent to the Regional NHS Epidemiological Co-ordinator for agreement before any schools are contacted and children selected.

4.3 Consent

Positive consent is required following the guidance by the Department of Health (Appendix C). It is advised that 300 children be randomly selected and consent sought from all if a minimum sample of 250 is being sought. All consented children should then be examined even though this may mean a sample of less than 250 in some cases. It is recognised that as the proportion of positive consenters reduces the representativeness of the sample also reduces.

The procedure for obtaining positive consent from the sampled pupils must involve:

- Providing parents or guardians with a letter which gives clear information explaining the nature and purpose of the dental survey in broad terms and simple language (Example given in appendix H). This letter should explain that consent will be sought from the children but that parents may refuse permission for their child to be involved in the survey. It is good practice for these letters to be posted to parents instead of relying on children to deliver them.

- Provision of a verbal explanation of the nature and purpose of the survey to all sampled children whose parents have not refused their being involved, using the provided wording (Appendix I).

- Asking each child if they have understood the explanation given, allowing them to ask questions and then asking if they are willing to take part.

- Recording on the data collection form which children agree to take part and which refuse, indicating that each child has heard and understood the information given (Appendix K).

- acceptance of, and respect for, the decision of a child to decline an examination

In a few instances arrangements exist whereby core consent agreement for all health surveillance is provided for whole of school life. Even where this includes dental examination or checks, letters should still be provided for parents prior to the survey which describe the purpose and nature of the survey (see Appendix H) and consent from pupils confirmed verbally and recorded.

A questionnaire is provided (Appendix Q) for PCTs to record their experiences while collecting positive consent from child volunteers. This should be passed to Regional Co-ordinators and then on to the Dental Observatory when the survey is complete.

4.4 Contingency for non-representative samples

There is potential for consent bias to impact upon the validity of results. However, in cases where the sample is not sufficiently representative of the Local Authority or PCT population, population weighted estimates may be calculated. This will be done centrally by the Dental Observatory and North West Public Health Observatory using the raw data. **The process requires that all children approached for consent are entered into the database along with their home postcode and consent return status.**

While these processes represent an increased workload collecting and entering data about consent provision it is considered to be essential if maximum information is to be compiled about the impact of the requirement of positive consent this year.

5. Personnel

5.1 The overall responsibility for the commissioning of the surveys lies with PCTs. Normally this will be delegated to Consultants in Dental Public Health, where they are in post, or other dental lead in each PCT. The conduct of the surveys will be the responsibility of the PCT. The process will be performance managed by Strategic Health Authority Leads, along with Regional Public Health Observatories.

5.2 The dental examinations will be carried out by dentists who will be trained annually to national standards by the Regional Trainers, using the approved BASCD training pack, to ensure that they are familiar with the examination method and criteria. Examiners must also be calibrated annually following the *BASCD guidance on the statistical aspects of training and calibration of examiners for surveys of child dental health* (Pine *et al*., 1997b) and examiners who do not conform with the accepted diagnostic standards will need to be retrained and recalibrated, or replaced.

5.3 The Regional NHS Epidemiological Co-ordinators of dental health surveys have a duty to ensure, from a Regional perspective, that the appropriate quality standards are maintained. This will be undertaken in consultation with the SHA Regional Dental Public Health leads and Consultants in Dental Public Health or other dental public health advisers responsible to Primary Care Trusts, who may wish to apply their own additional quality standards in line with local policy.

6. General Conduct of the Survey

6.1 The planning and organisation of the survey will be carried out in liaison between the Local Authority Education Director or equivalent and/or headteachers and governing bodies of the schools and the PCT DS Epidemiology Team or other agency appointed by the PCT to undertake this work. Reference to the Statutory Instrument 2006 No 185 (Appendix A) and the letter from the Chief Dental Officer (Appendix B) should be made if difficulties are encountered in gaining access to schools.

6.2 Following the selection of the schools to be included in the survey, the relevant headteachers will be contacted. The aims and objectives of the survey will be explained and the co-operation of the headteachers sought. Dates for examination will be set at a mutually convenient time and date.

6.3 Class lists of <u>all</u> age eligible children to be included in the survey will be obtained prior to the examination. This will involve class list of Years 7 and 8 in most instances. These lists should include the following information: name, date of birth and residential postcode.

6.4 Using class lists, children who will be age eligible on the planned day of examination will be identified (see Appendix G) and sampling of the appropriate intensity carried out (see section 4.2). A list of these sampled children, along with their home postcodes will be formed (see Appendix M) and the data entered into the main DSP2 database.

6.5 A letter will then be sent to each selected child's parent or guardian outlining the details of the survey and informing them that their child may be included, and giving the parent the opportunity to withdraw their child.(see Appendix H)

6.6 All sampled children, for whom no notification of withdrawal is received from parents or guardians, should be given, alone or in groups, an explanation using a standard script (see Appendix I) and use of that script by the dentist or assistant will be recorded on the survey file by the recorder.

Each individual pupil will be asked if they have any questions (and this will be recorded on the survey file) before they are asked if they are willing to participate. The agreement of pupils to participate will also be recorded on the survey file.

Examiners will only examine those pupils:

- whose parents have not refused permission and
- who have received an explanation of the nature and purpose of the survey using the standard script and
- who have been given an opportunity to ask questions and
- who have given expressed or implied consent by their words or actions.

The withdrawal by parents and withholding of consent by pupils will be recorded for each child into the main DSP2 database.

In PCTs/LAs where arrangements are in place to collect core agreement for all health surveillance, consented parents should also be sent a letter informing them of the nature and purpose of the forthcoming survey and giving them the opportunity to withdraw their child. The same process of explanation and recording of expressed consent by the pupils should also be followed.

6.7 The dental examinations will take place in school in a situation identified as being suitable for that purpose and convenient for the smooth running of both the survey and the school.

6.8 It is good practice to inform parents/guardians if a clinical condition requiring closer investigation is seen during examination, for example sepsis or caries in permanent teeth. If there is no intention to provide this information the consent letter (Appendix H) and the script of explanation (Appendix I) should be modified to explicitly reflect this.

7. Fieldwork

Examinations will take place in the selected schools after training and calibration of examiners and should be completed by the end of June 2009. This gives sufficient time for entering, checking and cleaning of data, primary analysis and summary reporting.

Equipment, Instruments and Materials

7.1 A table with mat or suitable fully reclining chair will be used for the examination. If a reclining chair is used, assessment should be made of the safety of it for both examiner and volunteer.

To ensure standardisation no mobile surgeries or equivalent should be used.

7.2 An inspection light (Daray X100 with Clamp Number 2 or Brandon Medical MT608BASCD are suitable if a replacement is needed) yielding approximately 4000 lux at 1 metre will be used for illumination. This requires that the Daray Versatile is set to the **brighter** of the two settings. A spare bulb will be carried in case of failure. Fibre optic light sources will not be used. (For details see Appendix F)

7.3 The instruments required for the caries examination will include No.4 plain mouth mirrors, ball ended CPITN probes or blunt or ball ended probes (0.5mm). Mirror heads will be replaced when they become scratched or otherwise damaged.

The attachment of the mirror head to the stem and the stem to the handle should be checked for security prior to examination.

7.4 Self perception of enamel opacities will be measured via questions and with the assistance of standard sets of photographs showing grouped presentations of various types of opacities. These standard photographs will be provided at the National Training and Calibration Exercise. Additional sets can be obtained by contacting The Dental Observatory.

7.5 The instrument required for assessing the Dental Health Component of the modified Index of Orthodontic Treatment Need will be a standard metal ruler with coloured markings at 4 and 6 mm, and a set of the ten IOTN colour photographs will be used to gauge the Aesthetic Component.

7.6 Local PCT policies and arrangements will be applied to prevent cross-infection and avoidance of allergic reactions to latex and glove powder. A fresh set of autoclaved instruments and a new pair of examination gloves will be used for each subject

7.7 Cotton wool rolls, cotton buds, or pledgets of cotton wool will be used to clear teeth of debris and moisture where necessary.

7.8 Suitable spectacles will be used to protect the subject's eyes

7.9 Data may be entered either onto paper record sheets (Appendix K) or directly onto computer, with safeguards for both methods (see 8.4).

8. The Collection of Data - General Information

8.1 Training and calibration

The collection and recording of both non-clinical and clinical data will be undertaken by trained and calibrated dentists, assisted by appropriately trained assistants. Evidence of intra-examiner reproducibility is desirable – brief guidance is given in Pine et al (1997b).

8.2 Computer software

Data will be collected and processed using the National Format **[12YR2008]** (Appendix N) with the Dental Survey Plus 2 version 2.1 release 3 program. The format will be provided in electronic format. This contains several free fields for local use at the end. If these are insufficient for local information requirements it is requested that additional fields are added to the end of the National format and the revised format labelled to show that it differs from the National one. No other changes to the National format should be made.

8.3 Confidentiality

PCTs will ensure that all data will be handled with full regard to confidentiality and the Data Protection Legislation. Access to all data files will be controlled and protected by passwords or on computers which are password protected. Primary Care Trusts will only retain anonymous processed data files for purposes of further analysis. For this reason no names, gender or day of birth will be recorded. As personal data processed for purposes of research and statistics falls within the scope of the Act (but may be exempt from subject access) each Primary Care Trust will register their data collection and analysis computer systems with their data protection officer.

8.4 Security

Where data is recorded directly onto computers a back-up copy will be made every day and stored separately from the main database.

If data is collected onto paper sheets in the field, transfer onto computer will occur with the minimum of delay. Paper copies will be kept securely and distant from the electronic database when inputting is not occurring. These should be retained and destroyed according to local protocols.

8.5 File management

Master and sub- data files should be labelled to indicate the population group to which they refer, according to guidance which will be produced to assist with data checking and analysis. It is insufficient simply to label files with the age group and year of survey. The name or code of the PCT is required.

Survey files should be saved into the ‘Survey’ file of DSP2.

8.6 Ownership of data

PCTs retain ownership of their data arising from the NHS Dental Epidemiology Programme. However, in the interests of accuracy and the benefits of comparability, results should not be reported until they have been verified centrally. All PCTs are required to submit their data to their Regional Coordinators so that they can check these and send them on to NWPHO/TDO (see Introduction), for checking, secondary analysis and compilation with other sets of data.

9. Collection of Non-Clinical Data

Non-clinical data may be entered onto paper sheets or DSP2 before going to the school for the clinical examination.

9.1 Organisational boundary coding

Each child will be coded to show which Local Authority and Primary Care Trust from which they are drawn. This is defined by the geographical position of the school within LA and PCT boundaries.

Coding of the previous primary care organisation is optional but can facilitate investigation of variation over time. [see appendix F]

Local planning and commissioning requirements may also necessitate the recording of wards, purchasing hubs or other units. Space for this is provided in the National Format as a spare optional field.

Current codes for Local Authorities and current PCTs are listed in Appendix F.

9.2 Examiner

A name or code must be used to identify the examiner.

9.3 School name and postcode

The school name and postcode will be recorded.

9.4 Examination date

The date of the examination will be recorded.

9.5 Identity number

A unique identity number will be entered for each child which consists of a prefix from the school code and a suffix which numbers participants from class lists. The list of school prefixes should be locally agreed and recorded.

The use of identity numbers instead of names improves anonymity of the data.

9.6 Month and Year of Birth

The month and year of birth only will be recorded as this increases anonymity. This should fall within the widest range of dates of birth October 1995 to July 1997 (Appendix G) helps to identify the narrower ranges for examination dates in each month).

9.7 Home address postcode

Home postcodes **will** be recorded for <u>all</u> children approached for consent, whether their parents withdraw them or not and whether the children give consent or not. This should be sought from the school or, in the rare instances when this is refused, lists from PCT school health clerks can be requested. (see Appendix F)

This data will be removed from databases centrally as soon as it has been used for grouping.

N.B. Computer programmes can only read postcodes if they are entered in the correct format (A = alphabetic N = numeric):

Formats	Example
AN NAA	M6 5CQ
ANN NAA	M25 7GH
AAN NAA	BB3 4RL
AANN NAA	SK15 8PY

Postcodes should be entered with the first part (Outward code) in the first box and the second part (Inward code) in the second set of boxes. When entering into DSP2 these should be typed into the two sets of boxes without any spaces to the left of the box.

The most common data entry faults are the substitution of the letters I and O for the numbers 1 and 0 and vice versa.

9.8 Sub-group

To facilitate the identification of samples which are taken in addition to the minimum requirement coding is required to assist in the calculation of sub-group means and weighting of collated sample means where necessary. For example, if an additional sample is required for an area of particular concern it is essential that children sampled for this purpose are identifiable to allow weighted means to be calculated to produce valid estimates for the overall population.

All 'additional' samples, if used, should be defined locally and descriptions communicated to Regional Co-ordinators and The Dental Observatory using the reporting form provided (Appendix P).

The coding to assist with identification of sample types is as follows:

0 Main survey sample (for coterminous PCT/LAs)
1 Additional sample A
2 Additional sample B
3 Additional sample C
4 Additional sample D
5 Additional sample E

9.9 Consent status

All children approached for consent should be entered onto the database, along with their postcode and consent status coding.

0 Parent withdrawal of child
1 Child consented to take part – having heard explanation and been given opportunity to ask questions
2 Child did not agree to take part
3 No parent withdrawal but child absent when consent sought

No further information should be recorded for children whose parents withdraw them, who were absent or who decline consent for themselves.

9.10 Examination type

The type of examination will be recorded as follows:-

0 Main survey examination
1 Replicate examination – for intra-examiner reliability
2 Training examination
3 No examination as child absent at this stage
4 No examination as child refused at this stage

No further information should be recorded for children who are absent or refused on the day of examination.

9.11 *Sequence of the Examination*

The following is the suggested sequence of examination:

Volunteer in an area which ensures privacy, away from other pupils and school staff;
FIRST: Questions about - Self -perception of enamel opacities
Self reporting of dental conditions and impact
Toothbrushing frequency
(Optional : Self classification of ethnic group – optional see section 11.8.1)
Orthodontics

Volunteer sitting or standing upright at site of examination;
SECOND: Aesthetic Component of IOTN

Volunteer supine;
THIRD: Dental Health Component of IOTN
FOURTH: Plaque assessment
FIFTH: Caries

10. The Collection of Questionnaire Data

The first stage, which involves the questionnaire, should be completed with the volunteer out of earshot of other volunteers or members of staff who might cause the respondent to be embarrassed and so give biased answers.

10.1 Measurement of self perception of enamel opacities

All volunteers should be asked these questions, the first of which have been used in previous NHS DEP surveys (BASCD Training Pack)

Ask all "Do you have any white marks on your front teeth that won't brush off?" the possible responses are Yes / No / Don’t know

For those who say yes: "Does the appearance of these white marks bother you?" the possible responses are Yes / No / Don’t know

This survey will not include an examination for developmental defects by the examiner which is replaced by an estimate of self matching of dental appearance in comparison to a set of photographs which portray different levels of developmental defects as classified by a fluorosis index**.**

Ask all: "Thinking about white marks on teeth, do you think your front teeth look more like those in this group, or the ones in this group, or this group?"

Show the three sets of photographs showing groups of teeth with varying types of appearance

Answer either :

Photograph set N

Photograph set S

Photograph set A

Don't know

10.2 Self reporting of dental conditions and impact on quality of life

These questions allow measurement and reporting of the impact of diseases and disorders which are of interest to service commissioners. These questions are based on the Child-OIDP (Gherunpong, 2004, and Yusuf et al, 2006).

Ask "In the past 3 months have you
had toothache or sensitive teeth
had bleeding or swollen gums
been aware of decay in your teeth or a broken adult tooth

had ulcers or a loose baby tooth
had a problem because of tooth colour, shape, size or position"

The possible answers are Yes / No / Don't know

If the volunteer replies no to all three of the first three conditions do not ask the next question.

If 'yes' is reported to one or more of the first three conditions ask "Have any of these problems with your teeth and mouth led to difficulties with:
Eating
Speaking
Cleaning your teeth
Relaxing (including sleeping)
Your feelings (for example being more impatient irritable, easily upset)
Smiling or laughing
Doing your schoolwork
Mixing with friends and other people"

The possible answers to each these are : None / a little / moderate / a lot

10.3 Self reporting of toothbrushing frequency

Recording brushing frequency indicates exposure to fluoride and can be related to plaque measurement.

Ask all volunteers "How often do you usually brush your teeth?" The possible answers are :
Never / less than once day / once a day / twice a day / more than twice a day

The optional variable of asking volunteers to record their ethnic background could be carried out after these questionnaire items – see section 12.1

10.4 Orthodontic questions

Ask "Have you got an orthodontic brace or appliance?" the answers that should be recorded are either Yes – the presence of a brace can be verified/seen
or Yes – but the presence of a brace cannot be verified/not seen
or No

For those who reply 'yes' with brace seen or unseen – do not ask any further orthodontic questions.

For those who reply "No" ask the next question,

Ask "Do you think your teeth need straightening?" Record either Yes, No or Don't know
If "no" or "don't know" do not ask any further orthodontic questions

For those who reply 'yes', ask "Would you be prepared to have treatment and wear a brace if it were necessary?" Record either Yes / No / Don't know

11 Clinical examination

11.1 Clinical measurement of orthodontic need using modified Index of Orthodontic Need - *Diagnostic Criteria and Codes*

N.B. The subject will not be given an orthodontic examination if they are currently wearing an orthodontic appliance. This can be indicated on the data collection sheet to assist the clinician.

The Index of Orthodontic Treatment Need (IOTN) consists of two separate components:

- The Aesthetic Component **-** determines the level of need for orthodontic treatment on aesthetic grounds.

- The Dental Health Component **-** determines the level of need for orthodontic treatment on dental health grounds.

Each component is assessed independently. The scores from each component are not added together. A few subjects may have a definite need for orthodontic treatment on aesthetic grounds, but no need on dental health grounds. Similarly, some children may have a need for orthodontic treatment on dental health grounds, but not on aesthetic grounds.

The following sections summarise how the IOTN scores should be recorded. The approach outlined will enable the examiner to record the IOTN score for the vast majority of malocclusions.

The first step has occurred in the questionnaire section (10.4). If the volunteer replied that they have an orthodontic appliance / brace and this has been visually verified there is no need to continue with the orthodontic measurement or other orthodontic questions.

11.1.1 The Aesthetic Component

NOTE: It is recommended that for the assessment of the Aesthetic Component of IOTN, children are seated upright and the examiner views the teeth from in front of the child.

The anterior teeth should be rated by the examiner on their dental attractiveness as seen. Stained teeth, enamel fractures and gingival inflammation should be ignored. A set of ten special colour photographs will be used to gauge the Aesthetic Component. However, when using the Aesthetic Component scale, a ranking should be awarded for overall dental attractiveness, rather than specific morphological similarity to the photographs.

Ask the subject to close together on their back teeth. Then retract the lips to expose the anterior teeth. The dental attractiveness of the subject is then rated against **the 10 point Aesthetic Component scale of attractiveness**. Grades 8-10 represent a definite need for orthodontic treatment on aesthetic grounds. Scores should be reported to the recorder with due regard to the sensitivity of the nature of the measure and the necessity to maintain the dignity and privacy of the volunteer.

11.1.2 The Dental Health Component

NOTE: It is recommended that for the assessment of the Dental Health Component of IOTN, volunteers will be examined lying down on a table or in a suitable chair that reclines to fully supine. The examiner should be seated behind the volunteer.

The Dental Health Component normally comprises a 5 point scale but Professor Donald Burden, in conjunction with a BASCD working party on Orthodontics, developed the modified Dental Health Component of IOTN for use in surveys, such as those undertaken by BASCD. It has been simplified so that only definite need for treatment is recorded, i.e. IOTN Grades 1 -3 are coded as 0 and Grades 4 and 5 coded as 1.

Grades 1 - 3 (no definite treatment need)	**Code 0**
Grades 4 and 5 (definite treatment need)	**Code 1**

A small metal ruler is used to measure overjets, crowding and open bites.

Examine each subject in a systematic manner for the following 5 occlusal traits:

A. **Missing teeth** (ectopic canines, congenital absence).

B. **Overjet** (both increased and reverse overjets).

C. **Crossbite**

D. **Displacement of contact points** (crowding).

E. **Overbite** (both increased overbite and open bite).

The acronym '**MOCDO**' can be constructed from the first letter of each category. This may be used to remember the scale of occlusal traits. **During the examination, if a malocclusion is present according to the criteria, a Code 1 is recorded. Once a Code 1 is recorded, the examination is complete and no further categories need to be examined for on the MOCDO scale.**

Methods and Criteria:

A. Missing teeth

Congenital absence/ traumatic loss
Where there is congenital absence or traumatic loss of one or more teeth the examiner must first decide if orthodontic treatment is required to either open space for a prosthesis or to close the space completely. If orthodontic treatment is required then the subject is recorded as being in the **definite need category (Code 1)** of the Dental Health Component.

Ectopic teeth
Ectopic upper canines are most often recorded in this section. If an upper canine is not present in the arch (and there is no history of extraction) the examiner should examine/palpate the buccal sulcus for normal canine position, i.e. a 'canine bulge' should be palpable. If no canine bulge is palpable, then the canine is assumed to be palatally ectopic and a **definite need (code 1)** for orthodontic care is recorded.

Impacted teeth
This category usually applies to impacted canines or second premolars. Third molars are not included in this assessment. An impacted tooth is recorded in IOTN when there is **4mm or less** space between adjacent erupted teeth = **definite need category (code 1)**.

Partially erupted teeth, tipped or impacted against adjacent teeth, are also included in this category, irrespective of the space available.

During school surveys radiographs are not usually available, therefore it can sometimes be difficult to determine if a tooth is congenitally missing or impacted. Congenital absence of permanent canines is rare. Congenital absence of second premolars is more common. Careful clinical examination/palpation of the alveolus may help to confirm the presence of an unerupted second premolar.

B. Overjets

To measure positive overjets

i) Use the end of the metal ruler, which has two lines.

ii) Hold the metal ruler parallel to the occlusal plane.

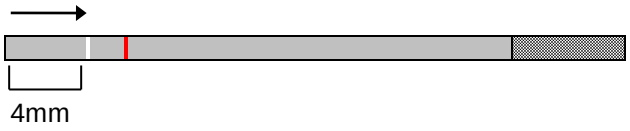
iii) Measure to the labial aspect of the most prominent incisor. On some occasions, the lateral incisor may be the most prominent incisor.

iv) A definite need (code 1) for orthodontic treatment is recorded if the overjet extends beyond the second line i.e. 6 mm., red line.

v) If the overjet falls exactly on the line do not record in the definite need category.

Reverse overjets

i) Use the first line of the metal ruler (4mm., white) to measure reverse overjets.



ii) A reverse overjet is defined as all four upper incisors in lingual occlusion.

iii) Reverse overjet is measured from the buccal margin of the incisal edge of the lower incisor to the buccal surface of the upper incisors

iv) Unlike positive overjet, if the reverse overjet falls exactly on the 4 mm line, then record in the definite need (code 1) for treatment category.

v) A definite need (code 1) for orthodontic treatment is also recorded if the subject has a reverse overjet is greater than 1mm and reports eating or speaking difficulties associated with this.

C. Crossbites

i) Can be anterior or posterior.

ii) The IOTN Dental Health Component need for treatment depends on the amount of transverse or antero-posterior displacement that occurs on closure.

Transverse displacement is measured by comparing the relationship between upper and lower midlines when the mouth is open and when it is closed.

Anterior displacement is measured by observing a fixed point in one buccal segment when teeth are first brought into contact and noting the displacement of this point in comparison with its lower partner when full closure occurs.

Definite Need = > 2mm displacement

D. Displacement of contact points (crowding)

i) Measure between the anatomical contact points of the two most crowded teeth.

ii) Using the metal ruler, determine if any of the contact points which should be adjacent to each other are greater than 4mm apart. The first line (4mm, white) of the metal ruler is used in this assessment. If contact points of permanent teeth are further than 4mm apart then a definite need (code 1) for treatment is recorded.

iii) Only measure crowding between permanent teeth. Do not measure between deciduous teeth or between deciduous teeth and permanent teeth.

iv) Rotations of premolar and molar teeth are not included in this section.

v) Hold the ruler parallel to the occlusal plane when making these measurements.

E. Overbite – deep or open

Deep overbite

i) The examiner should note if a deep overbite is present then look for signs of soft tissue trauma caused by this. A definite need (code 1) for treatment is recorded if there is evidence of trauma to the gingival margin, either on the palatal aspect of the upper incisors or the buccal aspect of the lower incisors.

Open bite (anterior or posterior)

ii) Only record 'true' open bites, do not include developmental open bites where continued eruption will close them in the normal way.

iii) Determine if the open bite is greater than the first line (4mm, white) - definite need (code 1) for treatment. More detail here – how many teeth?

Note: Generalised spacing is not recorded by the Dental Health Component.

For the third, fourth and fifth steps in the examination sequence volunteers will be examined lying down on a table or in a suitable chair that reclines to fully supine. The examiner will be seated **behind** the subject for these sections. The caries examination will be visual, aided by mouth mirrors and the standardised light source only.

The teeth will not be brushed, but may be rinsed prior to the dental examination. Where visibility is obscured, debris or moisture should be removed gently from individual sites with gauze, cotton wool rolls or cotton wool buds. Compressed air should **not** be used in the interests of comparability and cross-infection.

Probes must **only** be used for cleaning debris from the tooth surfaces to enable satisfactory visual examination and for defining fissure sealants as indicated below (11.3.6).

Radiographic or Fibre-optic transillumination examination will not be undertaken.

Only the permanent teeth will be recorded for the NHS Dental Epidemiological Survey of twelve-year-old children.

11.2 Oral cleanliness: Assessment of Plaque

It is of interest for local surveys to include a variable about oral cleanliness as this provides a proxy for toothbrushing activity and likely exposure to fluoride toothpaste. A simple measure based on a modification of the Silness and Löe Index (1964) will be used. A probe is not used for this part of the examination, which involves visual examination of upper canine to upper canine only. No disclosing should be done. Only easily visible plaque should be considered and recent debris such as small pieces of crisp found in an otherwise clean mouth immediately after a school lunchtime or break should be ignored.

The coding to be used is:

0 - Teeth appear clean
1 - Little plaque visible
2 - Substantial amount of plaque visible
9 - Assessment cannot be made for upper anterior sextant

11.3 Dentition Status

Teeth and surfaces will be examined in a standard order. Either the conventional nomenclature or the FDI 2 digit tooth numbering system may be employed but adherence to one system during one survey avoids confusion. The objective is for the examiner to record the present status of the teeth in terms of disease and treatment history.
The condition of each tooth surface will be recorded using the BASCD standardised criteria (BASCD) Diagnostic Criteria for Caries Prevalence Surveys - 1996/97. The application of these criteria will be taught using the BASCD Caries Training Pack.

Data will be recorded by tooth surface. The boundary between mesial / distal surface and the adjacent lingual / buccal surface is demarcated by a line running across the point of maximum curvature.

11.3.1 Conventions

The following conventions will apply:

a) A tooth is deemed to have erupted when any part of it is visible in the mouth. Unerupted surfaces of an erupted tooth will be regarded as sound.

b) The presence of supernumerary teeth will not be recorded. If a tooth and a supernumerary exactly resemble one another then the distal of the two will be regarded as the supernumerary.

c) Caries takes precedence over non-carious defects, e.g. hypoplasia

d) Retained roots following extraction or gross breakdown should be recorded as Code 3.

e) Discoloured, non-vital incisors, without caries or fractures should be scored T for trauma on all surfaces

f) Surfaces which are obscured e.g. banded teeth, should be assumed to be sound and coded '-' or '0'.

11.3.2 Teeth present

Before coding the status of individual surfaces, it may be useful to identify which primary and/or permanent teeth are present and which are absent. A staged examination is recommended as follows:-

a) the teeth are described :- mirror only
b) tooth surface examination :- mirror + cotton wool (for drying)

11.3.3 Absent teeth

Tooth Code 6 - Extracted due to caries
Surfaces are regarded as missing if the tooth of which they were a part, has been extracted because it was carious. Surfaces which are absent for any other reason are **not** included in this category.
If there has been an extraction and root remains have been left in place, Code 3 should be used.

Tooth Code 7 - Extracted for Orthodontic Reasons
Surfaces are regarded as extracted for orthodontic reasons if the tooth of which they were part has, in the opinion of the examiner, been extracted solely for orthodontic reasons. Unless there is overwhelming evidence to the contrary, after questioning the child, missing first permanent molars will be recorded as extracted due to caries.

Tooth Code 8 - Unerupted or missing other
This code will be used for teeth that are unerupted, congenitally absent or missing due to reasons unknown.

11.3.4 Obscured surfaces
All obscured surfaces are assumed sound (surface code 0 – sound) unless there is evidence of disease experience on the remaining exposed part of the tooth, in which case the tooth should be coded according to its classification for those exposed surfaces.

11.3.5 Caries Diagnostic Criteria and Codes
The diagnosis of the condition of tooth surfaces will be visual and the diagnostic criteria and codes **will** be strictly adhered to. Unless the criteria are fulfilled, caries **will not** be recorded as present. A single digit code, the descriptor code, will be used to describe the state of each surface. These codes, which are mutually exclusive, are as follows:-

Surface Code 0 - Sound

Criteria - A surface is recorded as "sound" if it shows no evidence of treated or untreated clinical caries at the "caries into dentine" threshold. The early stages of caries as well as other similar conditions are excluded. Surfaces with the following defects, in the absence of other positive criteria, should be coded as present and "sound":-

- *white or chalky spots*
- *discoloured or rough spots*
- *stained pits or fissures in the enamel that are not associated with a carious lesion into dentine.*
- *dark, shiny, hard, pitted areas of enamel in the tooth showing signs of moderate to severe fluorosis.*

All questionable lesions should be coded as sound.

Surface Code 1 - Arrested dentinal decay

Criteria - surfaces will fall into this category if there is arrested caries into dentine. This code should only be used for arrested dentinal decay.

Surface Code 2 - Caries into dentine

Criteria - surfaces are regarded as decayed if after **visual** inspection there is a carious lesion into dentine. On incisors where the lesion starts mesially or distally, buccal/lingual surfaces will normally be involved.

Surface Code 3 - Decay with pulpal involvement

Criteria - surfaces are regarded as falling into this category if there is a carious lesion that involves the pulp whether or not there is a filling in the surface.

Retained roots following extraction or gross breakdown should also be recorded as Code 3.

Surface Code 4 - Filled and Decayed

Criteria - a surface that has a filling and a carious lesion fulfilling the criteria for code 2 (whether or not the lesion(s) are in physical association with the restoration(s)) will fall into this category unless the lesion is so extensive as to be classified as "decay with pulpal involvement", in which case the filling would be ignored and the surface classified Code 3.

Surface Code 5 - Filled with no decay

Criteria - surfaces which contain a satisfactory permanent restoration of any material will be coded under this category (with the exception of obvious sealant restorations which are coded separately as Code N).

Surface Code R - Filled, needs replacing (not carious)

Criteria - a filled surface is regarded as falling into this category if the restoration is chipped or cracked and needs replacing but there is no evidence of caries into dentine present on the same surface.

Lesions or cavities containing a temporary dressing, or cavities from which a restoration has been lost will be regarded as filled, needs replacing unless there is also evidence of caries into dentine in which case they will be coded in the appropriate category of “decayed”.

Note: The number of teeth/surfaces scored R should be separately identified. However, if categories are to be combined later, Code R surfaces are to be considered as part of the "filled" component as no new caries is evident.

Surface Code C - Crown

Criteria - This code is used for all surfaces which have been permanently crowned or which have received permanent items of advanced restorative care in the form of a veneer or a restoration constituting a bridge abutment. This is irrespective of the materials employed or of the reasons leading to the placement of the crown/veneer/bridge. (Note: missing teeth replaced by a bridge are coded either 6,7,8, or all surfaces T.)

NB: Code C also applies to pre-formed and stainless steel crowns.

Surface Code T - Trauma

Criteria - A surface will be recorded as traumatised if, in the opinion of the examiner, it has been subject to trauma and as a result is fractured so as to expose dentine, or is discoloured, or has a temporary or permanent restoration (excluding a crown). Minor trauma, affecting enamel only, will be ignored.

Where a tooth is missing through trauma all surfaces should be coded T.

Any surface exhibiting caries experience, as defined by the caries criteria , will be recorded with the appropriate caries experience code (code 1 - 5), **irrespective** of the presence of traumatic damage.

11.3.6 Sealed surfaces

The ball-ended probe should be used to assist in the detection of sealants. Care should be taken to differentiate sealed surfaces from those restored with tooth coloured materials used in prepared cavities which have defined margins and no evidence of fissure sealant. The latter are regarded as fillings and are allocated the appropriate code, i.e. 4, 5 or R. Sealant codes should only be used if the surface contains evidence of sealant (including cases with a partial loss of sealant), is otherwise sound and does not contain an amalgam or conventional tooth coloured filling.

Surface Code $ - Sealed Surface

Criteria - All occlusal, buccal and lingual surfaces containing some type of fissure sealant but where **no** evidence of a defined cavity margin can be seen (note: this category will inevitably include both preventive and therapeutic sealants.)
Where a clear sealant is in place and there appears to be a lesion showing through the material, the surface should still be coded Code $ - Sealed Surface.

Surface Code N - Obvious Sealant Restorations

Criteria - All occlusal, buccal and lingual surfaces containing a tooth coloured restoration where there is evidence of a defined cavity margin and a sealed unrestored fissure. If doubt exists as to whether a preventive sealant or a sealant restoration is present, the surface should be regarded as being preventively sealed - Code $.

When doubt exists about the classification of any condition, the lower category should always be recorded

12 Optional variables

12.1 Optional variable for ethnic code

Subjects may be coded for ethnic origin.

Either ask the volunteers to identify their own ethnic group from the list supplied (Appendix J) and add this in during the questionnaire phase of the survey process (stage 1, see end of item 10.3)

Or use the ethnicity data that schools collect from parents.

The coding may vary from one LA/PCT to another but they should combine to fall into the following groups:

A White
B Mixed
C Indian
D Pakistani
E Bangladeshi
F Other Asian
G Black Caribbean

H Black African
I Black Other
J Chinese
K Ethnic other - A
L Ethnic other – B
M Ethnic other - C

The final three groups may be used for local use and should be defined to allow for particular additional ethnic groups.

Further guidance and descriptions of groupings can be found from
:http://www.dfes.gov.uk/datastats1/guidelines/children/ANNEX%20B_2005.pdf
http://www.standards.dfes.gov.uk/ethnicminorities/collecting/763919/?version=1

12.2 Optional variable for assessment of treatment need

An optional spare variable may be included using a spare variable in the Survey Plus format to collect broad information on treatment need. Criteria will be agreed locally, or in consultation with the Regional NHS Epidemiology Co-ordinator.

12.3 Optional data to identify ward, locality or other unit

It may be helpful in some cases to record the ward, purchasing locality or other unit to enable local analysis to be carried out. Space is provided for this option as a spare variable in the standard format. (for information see Appendix G).
If coding for 'old' PCT is required space for this is provided in the first section of the data collection sheet and is in the national format

12.4 Information on children with special needs

Information on dental health status of children with special needs is useful for comparison purposes and to establish priority areas for action. Special needs schools should not be included in the main sample but coded separately and saved in a separate file. The identification of children attending mainstream schools who have special needs may be facilitated by using School Action Plus classification information which may be collected by schools. A separate protocol is available for those wishing to survey children attending special needs schools.

For details about this contact janet.neville@centrallancashire.nhs.uk

12.5 Other optional data

Other measures may be helpful to inform local planning functions and can be coded to suit needs and incorporated into the National Format within the spare variables section or following this. The new format should be renamed to distinguish it from the standard format.

13 Reporting of Data

Prior to analysis of data and reporting of summaries each PCT team is responsible for checking their data for inaccuracies. The main areas for error occur with incorrect dates of birth and/or ages, duplicate entries for children or schools and entry of clinical data for children coded absent. Guidance will follow giving details on how this checking should be carried out.

Once the data has been checked and errors corrected, files can be formed into PCT units which can then be analysed. Separate files should be formed for each PCT estimate, labelled to indicate which PCT they refer. Care must be used if weighting of samples is necessary to

produce LA or PCT estimates. Please see the guidance to follow and the help from Girvan in the form of a presentation and a ready reckoner for calculating weighted means, weighted proportions and confidence intervals
http://pcwww.liv.ac.uk/~gburnsid/bascd.htm

Analysis at Local Authority level will be undertaken centrally by TDO / NWPHO.

The following will be reported by fieldwork teams:

1) Start and finish dates of the period of examinations (dd/mm/yyyy – dd/mm/yyyy)

2) Number of children in school population aged 12 years

3) Total number of schools with 12-year-old children

4) Total number of schools visited

5) Total sample drawn

6) Explanation of sample sub-group codes if necessary

7) Number of children withdrawn by parents

8) Number of children giving consent and refusing consent

9) Number of children examined and children absent,

10) For complete PCT - Mean DT, standard deviation and 95% confidence limits

11) For complete PCT - Mean MT, standard deviation and 95% confidence limits

12) For complete PCT - Mean FT, standard deviation and 95% confidence limits

13) For complete PCT - Mean DMFT, standard deviation and 95% confidence limits

14) For complete PCT - Mean Sealed Teeth ($T), standard deviation and 95% confidence limits

15) For complete PCT - Mean number of Sound Teeth including sound and sealed (SS$T), standard deviation and 95% confidence limits

16) For complete PCT - Number and percentage of children with caries experience (DMFT>0)

17) For complete PCT - Mean DMFT, standard deviation and 95% confidence limits, of children with caries experience (DMFT>0)

18) For complete PCT - Number and percentage of children with current dentinal decay (DT>0)

19) For complete PCT - Mean DT, standard deviation and 95% confidence limits, of children with current dentinal decay (DT>0)

The following will be calculated centrally by TDO / NWPHO at PCT level:

1) Mean age and standard deviation

2) Number and percentage of children who consider that their teeth match with enamel opacity photograph set A.

3) Number and percentage of children reporting one or more self reported conditions

4) Number and percentage of children reporting severe impacts due to treatable conditions

5) Number and percentage of children brushing twice or more daily

6) Number and percentage of children wearing orthodontic appliances

7) Number and percentage of children who think their teeth need straightening

8) Number and percentage of children who would be willing to wear a brace if necessary

9) Number and percentage of children with IOTN aesthetic score of 8, 9 or 10

10) Number and percentage of children with IOTN dental health component score indicative of orthodontic need

11) Number and percentage of children that are eligible for orthodontic care and are ready and willing to undergo this

12) Prevalence of visible plaque and associations with other variables

13) All the above variables that are relevant at Local Authority level.

Preliminary analyses will be submitted using the summary reporting forms (Appendix N) which will be provided electronically as part of a workbook which also undertakes the necessary calculations.

All returns, which should be made to the Regional Co-ordinator for checking as soon as possible after completion of the survey and no later than **June 30th 2009** and should include:

i) a disk containing the Survey files labelled to indicate PCT to which they refer

ii) the completed Excel results summary reporting sheet

iii) explanations of sampling methods and intensities

iv) a completed questionnaire reporting local experiences regarding the collection of consent

Regional Co-ordinators will send in these items for their regions via a web portal to the Dental Observatory ready for checking, assessment of samples, verification of estimates for PCTs and LAs and calculation of population weighted estimates by NWPHO.

Primary Care Trusts will also require a copy of the data and format files, together with a report sheet. These should be sent to the respective Consultant in Dental Public Health or dental public health adviser **after** central analysis, verification of LA and PCT means and production of population weighted estimates by TDO/NWPHO.

References :

Statutory Instrument 2006, No 185 can be printed from :
http://www.opsi.gov.uk/si/si200601.htm

*Pine, C.M., Pitts, N.B., Nugent, Z.J. (1997a): British Association for the Study of Community Dentistry (BASCD) guidance on sampling for surveys of child dental health. A BASCD coordinated dental epidemiology programme quality standard. *Community Dental Health* **14**, (Supplement 1), 10-17.

*Pine, C.M., Pitts, N.B., Nugent, Z.J. (1997b): British Association for the Study of Community Dentistry (BASCD) guidance on the statistical aspects of training and calibration of examiners for surveys of child dental health. A BASCD co-ordinated dental epidemiology programme quality standard. *Community Dental Health* **14**, (Supplement 1), 18-29.

*Pitts, N.B., Evans, D.J., Pine, C.M. (1997): British Association for the Study of Community Dentistry (BASCD) diagnostic criteria for caries prevalence surveys – 1996/97. *Community Dental Health* **14**, (Supplement 1), 6-9.

Burden DJ, Pine CM, Burnside G (2001) Modified IOTN: an orthodontic treatment need index for use in oral health surveys. *Community Dentistry & Oral Epidemiology* **29**(3):220-5.

Gherunpong S, Tsakos G, Sheiham A. (2004) Developing and evaluating an oral health-related quality of life index for children; the CHILD-OIDP. Community Dental Health 21: 161-169.

Yusuf H., Gherunpong S., Sheiham A., Tsakos G. (2006) Validation of an English version of the Child-OIDP Index, an oral health-related quality of life measure for children. Health and Quality of Life Outcomes 4: 38.

N. M. Nuttall, J. G. Steele, D. Evans, B. Chadwick, A. J. Morris and K. Hill (2006) The reported impact of oral condition on children in the United Kingdom, 2003 *British Dental Journal* 2006; 200: 551–555

Silness J, Löe H (1964) Periodontal disease in pregnancy. II Correlation between oral hygiene and periodontal condition. Acta Odontologica Scandinavica 22:121–135

*Available as guidance papers from the information section at http://www.bascd.org/

Table of appendices

** will be provided as separate attachment

Appendix A Scanned copy of Statutory Instrument 2006, N 185

STATUTORY INSTRUMENTS

2006 No. 185

NATIONAL HEALTH SERVICE, ENGLAND

The Functions of Primary Care Trusts (Dental Public Health) (England) Regulations 2006

Made - - - -	*26th January 2006*
Laid before Parliament	*6th February 2006*
Coming into force - -	*1st April 2006*

The Secretary of State for Health makes the following Regulations in exercise of the powers conferred by section 16CB(1) of the National Health Service Act 1977(**a**):

Citation, commencement and interpretation

1.—(1) These Regulations may be cited as the Functions of Primary Care Trusts (Dental Public Health) (England) Regulations 2006 and shall come into force on 1st April 2006.

(2) In these Regulations—

"the Act" means the National Health Service Act 1977;

"oral health promotion programme" means a health promotion and disease prevention programme the underlying purpose of which is to educate and support members of the public about ways in which they may improve their oral health;

"oral health survey" means a survey to establish the prevalence and incidence of disease or abnormality of the oral cavity; and

"water fluoridation programme" means—

(a) until the coming into force of section 58 of the Water Act 2003(**b**) (fluoridation of water supplies), fluoridation arrangements made under section 87(5) of the Water Industry Act 1991 (fluoridation of water supplies at request of health authorities); and

(b) upon the coming into force of section 58 of the Water Act 2003, fluoridation arrangements made under new section 87(1) (fluoridation of water supplies at request of relevant authorities) of the Water Industry Act 1991.

Exercise of functions of Primary Care Trusts

2.—(1) A Primary Care Trust shall have the following functions in England.

(2) A Primary Care Trust shall provide, or secure the provision of, the following, to the extent that it considers necessary to meet all reasonable requirements within its area—

(a) oral health promotion programmes;

(**a**) 1977 c.49. Section 16CB(1) was inserted by section 171(1) of the Health and Social Care (Community Health and Standards) Act 2003 (c.43).
(**b**) 2003 c.37. Section 58 prospectively substitutes section 87 of the Water Industry Act 1991 (1991 c.56).

(b) dental inspection of pupils in attendance at schools maintained by local education authorities; and

(c) oral health surveys to facilitate—

(i) the assessment and monitoring of oral health needs,

(ii) the planning and evaluation of oral health promotion programmes,

(iii) the planning and evaluation of the provision of primary and specialist dental services, and

(iv) the monitoring and reporting of the effect of water fluoridation programmes.

(3) A Primary Care Trust shall participate in any oral health survey required by the Department of Health as part of a survey conducted or sponsored under section 5(2)(d) of the Act (**a**) (other services).

Rosie Winterton
Minister of State,
Department of Health

26th January 2006

EXPLANATORY NOTE

(This note is not part of the Regulations)

These Regulations set out the functions to be exercised by Primary Care Trusts in England in relation to oral health.

Those functions relate to oral health promotion programmes, dental inspection of pupils in schools maintained by local education authorities and oral health surveys.

(**a**) Subsection (2) of section 5 has been amended by section 1 of the Public Health Laboratory Service Act 1979, (c. 23), and S.I. 2002/2759.

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Appendix B – Letter from CDO to headteachers – fieldwork teams may duplicate this and send to schools – it will not be sent out centrally

New King's Beam House
22 Upper Ground
London
SE1 9BW

0207 633 4247

From: Barry Cockcroft
Chief Dental Officer for England

July 2008

Dear Head Teacher,

NHS Dental Health Surveys of Children

I am pleased to say that in this country our older children generally have some of the best teeth in Europe. I want to ensure that this not only remains the case but that we take appropriate steps to improve dental health even further.

In order to do this and to particularly focus preventive dental care into areas that need more support, it is essential that the NHS has up to date information on current dental health. The NHS child dental health surveys, which have been undertaken for over 20 years, are now a legal requirement for Primary Care Trusts to undertake, providing as they do essential data for service planning. During 2008/09 PCTs are required to carry out surveys of 12 year old children and your school may be selected to take part.

I know that at times in the busy life of a school, it can seem an encumbrance for you and your staff to both provide the facilities for these surveys and to take children out of class but my colleagues in the NHS need your support in undertaking these surveys. I know that they will try to fit in with your school's routines as much as possible and complete the survey as soon as they can.

All the information obtained will be held in the strictest confidence and an individual student's data will not be disclosed under any circumstances.

I hope that you will be able to help us and on behalf of Ministers, I should like to thank you for your continued support for this work for which we are most grateful.

Thank you once again for your support,

Yours sincerely,

Barry Cockcroft
Chief Dental Officer (England)

Appendix C - Letter from CDO detailing new requirement for positive consent

Consent for School Dental Inspections and Dental Epidemiological Surveys

We have had reason to consider the issue of consent for both school dental inspections and dental surveys. Guidance was issued by the former NHS Management Executive in May 1992 which implied that it is acceptable to rely on negative consent for dental surveys. We are aware that PCTs are relying on this previous guidance to support the use of negative consent. **This guidance should no longer be followed.**

As both of the above stated processes inevitably involve physical contact between a dentist and a child, it is necessary to obtain consent from the child (if he/she is competent to give consent) or from a person with parental responsibility for the child, in accordance with the Department's guidance on consent to treatment[1]. Whilst the risk of any proceedings[2] being brought against a dentist or PCT in relation to a school dental inspection or epidemiological survey might be considered low, in the event that there was, a dentist may not be able to prove that consent had been obtained simply on the basis that letter had been sent out to parents and no objection had been received.

We are aware of concerns about the impact that obtaining positive consent might have on the NHS oral health epidemiology programmes within England. Where programmes are surveying older children eg.10-11 year olds it is likely that a child of this age would be competent to consent to the dental examination, provided it is explained to them what the process involves, for what purpose the information obtained will be used, and that they can refuse to take part if they wish. If the competent 10-11 year old child consents, this will be sufficient.

In relation to younger children, we have been exploring whether positive consent to dental inspections/surveys obtained from the child's parent (or relevant person with parental responsibility) when their child begins school would be sufficient proof of consent.

We consider that a dentist performing these inspections and surveys might be able to rely on such consent, as long as sufficient information is provided to the parent at the time that consent is obtained to enable their consent to be fully informed. It would be good practice to inform parents how many times the procedures would take place and in which school years, and that they may withdraw their consent at any time. It would also be good practice to write to parents to inform them when examinations/surveys are about to be carried out and reminding them that they may withdraw consent if they wish.

As this will be additional information that will need to be obtained from parents at school entry, we will need to discuss with colleagues in DfES how this might be incorporated into the school entry procedures prior to our issuing further formal guidance.

---

[1] *Good practice in Consent* (HSC 2001/023)
http://www.dh.gov.uk/PublicationsAndStatistics/LettersAndCirculars/HealthServiceCirculars/HealthServiceCircularsArticle/fs/en?CONTENT_ID=4003736&chk=OigZnc

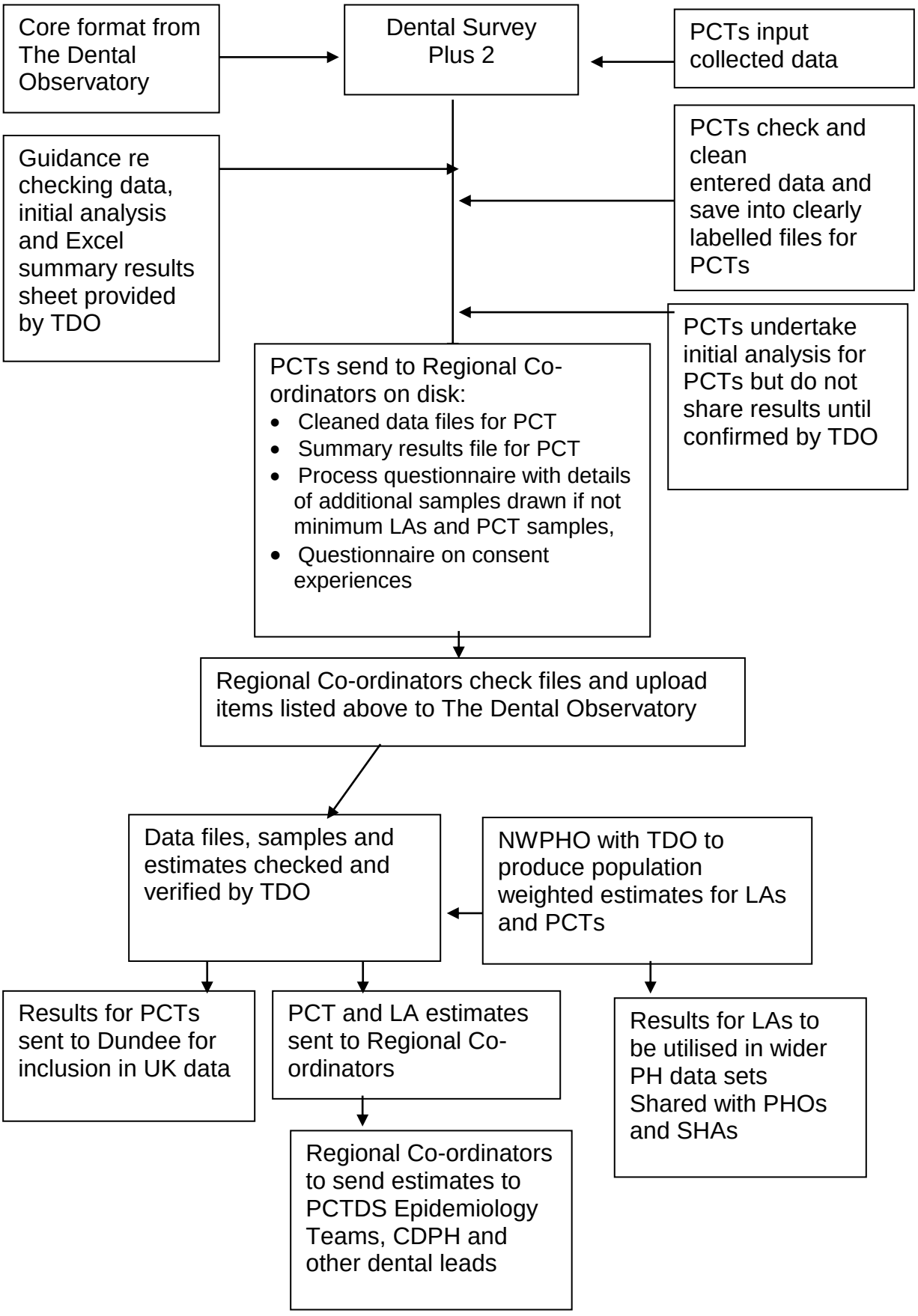
http://www.dh.gov.uk/PublicationsAndStatistics/Publications/PublicationsPolicyAndGuidance/PublicationsPolicyAndGuidanceArticle/fs/en?CONTENT_ID=4005762&chk=7ENk2Q

[2] for battery/assault or negligence, or disciplinary proceedings

Appendix D - Operational timetable

National training and calibration	16th 17th 18th September, 2008, Salford
Regional training and calibration	From 19th September onwards
Planned sampling methods sent to Regional Co-ordinator for verification	After date of Regional training session
Preparation of samples, letters to parents recording of responses	September and October 2008
Data collection	To start as soon as possible and completed by end of June 2009
Completion of data entry, checking and analysis Forwarding of PCT completed summaries and copies of PCT cleaned data files to Regional Co-ordinators as soon as possible before deadline	By 30th July 2009
Regional Co-ordinators to upload the completed summaries and copies of checked and cleaned PCT data files to The Dental Observatory	To be forwarded as and when they arrive, completed by 31st August 2009
NWPHO/TDO - Checking of data and samples, verifying estimates, production of population weighted estimates for PCTs and LAs	As and when they arrive
Feedback of confirmed results to Regional Co-ordinators, PHOs, PCTs, SHA, CDPH	Starting from October 2009
Inclusion of LA estimates into Health Profiles	
Publication of PCT estimates in Community Dental Health	March 2010

Appendix E - Diagram to show flow of data



Appendix F - Sources of information

- This National protocol, National SPII format, Excel reporting form are available to download from www.bascd.org.uk
  www.dental-observatory.co.uk
- sampling guidance and Excel tables to help with calculation of weighted means, proportions and confidence intervals are also available from:
  http://pcwww.liv.ac.uk/~gburnsid/bascd.htm

- Numbers of pupils on roll – from Education Authority planning officers. May be available as an Excel database

- If home postcodes cannot be obtained from schools, school nurses, school health clerks or local Child Health information services these can be obtained by cross referencing the volunteer's address in the relevant Royal Mail Postal Address Book. Telephone 0845 6039 038 to obtain a copy.

  Alternatively, use the Royal Mail Postcodes on-line at
  www.royalmail.com/portal/rm/postcodefinder.

- Maps of all new PCTs and by region can be found at http://www.dh.gov.uk/en/News/DH_4135088
- National codes for wards can be found at
  www.statistics.gov.uk/geography/geographic_area_listings/downloads/E&W_CASwards.xls
- List of old and new PCT codes: from 'Tables' worksheet in the workbook which can be opened from http://www.ic.nhs.uk/statistics-and-data-collections/population-and-geography/pct-mapping-tool.

- Light source if new unit required to replace a Daray Versatile or Daray ME8 (these are no longer produced)

Either The Daray X100 (~£204 + VAT) with Clamp number 2 which is an improved version of Pivot D clamp (according to Daray) to allow desk mounting
Contact : Daray Ltd
Tel: 0870 777 2664 Sales.team@daray.co.uk www.Daray.com

Or The MT608BASCD (~£245 + VAT incl clamp and bulb)
Contact Brandon Medical Co. Ltd
Tel: 0113 277 7393 www.brandon-medical.co.uk

A list of codes for Local Authorities and new PCTs follows for 2008/09. This is numbered and colour-coded to indicate how PCTs and LAs relate. The table directly below describes these and the sampling method indicated for each circumstance

Relationship between geographies	Primary population sampling frame
1 Multiple LAs to 1 PCT	Local Authority – weighted mean for PCT estimate may be necessary
2 1 LA to 1 PCT match	Local Authority
3 1 LA to multiple PCTs	PCT – weighted means may be necessary
4 LA wholly within non-coterminous PCT	Local Authority
5 LA spans multiple PCTs	Individual consideration – help of statistician advised

Ref	LA	Code	PCT	Code
2	Wigan	00BW	Ashton, Leigh and Wigan	5HG
2	Barking and Dagenham	00AB	Barking and Dagenham	5C2
2	Barnet	00AC	Barnet	5A9
2	Barnsley	00CC	Barnsley	5JE
2	Bassetlaw	37UC	Bassetlaw	5ET
2	Bath and North East Somerset	00HA	Bath and North East Somerset	5FL
1	Mid Bedfordshire	09UC	Bedfordshire	5P2
1	Bedford	09UD	Bedfordshire	5P2
1	South Bedfordshire	09UE	Bedfordshire	5P2
4	Bracknell Forest	00MA	Berkshire East	5QG
4	Slough	00MD	Berkshire East	5QG
4	Windsor and Maidenhead	00ME	Berkshire East	5QG
5	Runnymede	43UG	Berkshire East	5QG
1	West Berkshire	00MB	Berkshire West	5QF
1	Reading	00MC	Berkshire West	5QF
1	Wokingham	00MF	Berkshire West	5QF
2	Bexley	00AD	Bexley	TAK
3	Birmingham	00CN	Birmingham East and North	5PG
2	Blackburn with Darwen	00EX	Blackburn with Darwen	5CC
2	Blackpool	00EY	Blackpool	5HP
2	Bolton	00BL	Bolton	5HQ
1	Bournemouth	00HN	Bournemouth and Poole	5QN
1	Poole	00HP	Bournemouth and Poole	5QN
2	Bradford	00CX	Bradford and Airedale	5NY
2	Brent	00AE	Brent Teaching	5K5
2	Brighton and Hove City	00ML	Brighton and Hove City	5LQ
2	City of Bristol	00HB	Bristol	5QJ
2	Bromley	00AF	Bromley	5A7
5	Aylesbury Vale	11UB	Buckinghamshire	5QD
4	Chiltern	11UC	Buckinghamshire	5QD
4	South Bucks	11UE	Buckinghamshire	5QD
4	Wycombe	11UF	Buckinghamshire	5QD
5	South Oxfordshire	38UD	Buckinghamshire	5QD
2	Bury	00BM	Bury	5JX
2	Calderdale	00CY	Calderdale	5J6
1	Cambridge	12UB	Cambridgeshire	5PP
1	East Cambridgeshire	12UC	Cambridgeshire	5PP
1	Fenland	12UD	Cambridgeshire	5PP
1	Huntingdonshire	12UE	Cambridgeshire	5PP
1	South Cambridgeshire	12UG	Cambridgeshire	5PP
2	Camden	00AG	Camden	5K7
4	Congleton	13UC	Central and Eastern Cheshire	5NP
5	Crewe and Nantwich	13UD	Central and Eastern Cheshire	5NP
4	Macclesfield	13UG	Central and Eastern Cheshire	5NP
5	Vale Royal	13UH	Central and Eastern Cheshire	5NP
1	Chorley	30UE	Central Lancashire	5NG
1	Preston	30UK	Central Lancashire	5NG
1	South Ribble	30UN	Central Lancashire	5NG
1	West Lancashire	30UP	Central Lancashire	5NG
1	City and County of the City of London	00AA	City and Hackney Teaching	5C3
1	Hackney	00AM	City and Hackney Teaching	5C3
1	Caradon	15UB	Cornwall and Isles of Scilly	5QP
1	Carrick	15UC	Cornwall and Isles of Scilly	5QP
1	Kerrier	15UD	Cornwall and Isles of Scilly	5QP
1	North Cornwall	15UE	Cornwall and Isles of Scilly	5QP
1	Penwith	15UF	Cornwall and Isles of Scilly	5QP
1	Restormel	15UG	Cornwall and Isles of Scilly	5QP

Ref	LA	Code	PCT	Code
1	Chester-le-Street	20UB	County Durham	5ND
1	Derwentside	20UD	County Durham	5ND
1	Durham	20UE	County Durham	5ND
1	Easington	20UF	County Durham	5ND
1	Sedgefield	20UG	County Durham	5ND
1	Teesdale	20UH	County Durham	5ND
1	Wear Valley	20UJ	County Durham	5ND
2	Coventry	00CQ	Coventry Teaching	5MD
2	Croydon	00AH	Croydon	5K9
1	Allerdale	16UB	Cumbria	5NE
1	Barrow-in-Furness	16UC	Cumbria	5NE
1	Carlisle	16UD	Cumbria	5NE
1	Copeland	16UE	Cumbria	5NE
1	Eden	16UF	Cumbria	5NE
1	South Lakeland	16UG	Cumbria	5NE
2	Darlington	00EH	Darlington	5J9
2	City of Derby	00FK	Derby City	5N7
4	Amber Valley	17UB	Derbyshire County	5N6
4	Bolsover	17UC	Derbyshire County	5N6
4	Chesterfield	17UD	Derbyshire County	5N6
4	Derbyshire Dales	17UF	Derbyshire County	5N6
4	Erewash	17UG	Derbyshire County	5N6
5	High Peak	17UH	Derbyshire County	5N6
4	North East Derbyshire	17UJ	Derbyshire County	5N6
4	South Derbyshire	17UK	Derbyshire County	5N6
1	East Devon	18UB	Devon	5QQ
1	Exeter	18UC	Devon	5QQ
1	Mid Devon	18UD	Devon	5QQ
1	North Devon	18UE	Devon	5QQ
1	South Hams	18UG	Devon	5QQ
1	Teignbridge	18UH	Devon	5QQ
1	Torridge	18UK	Devon	5QQ
1	West Devon	18UL	Devon	5QQ
2	Doncaster	00CE	Doncaster	5N5
1	Christchurch	19UC	Dorset	5QM
1	East Dorset	19UD	Dorset	5QM
1	North Dorset	19UE	Dorset	5QM
1	Purbeck	19UG	Dorset	5QM
1	West Dorset	19UH	Dorset	5QM
1	Weymouth and Portland	19UJ	Dorset	5QM
2	Dudley	00CR	Dudley	5PE
2	Ealing	00AJ	Ealing	5HX
1	Broxbourne	26UB	East and North Hertfordshire	5P3
1	East Hertfordshire	26UD	East and North Hertfordshire	5P3
1	North Hertfordshire	26UF	East and North Hertfordshire	5P3
1	Stevenage	26UH	East and North Hertfordshire	5P3
1	Welwyn Hatfield	26UL	East and North Hertfordshire	5P3
1	Burnley	30UD	East Lancashire	5NH
1	Hyndburn	30UG	East Lancashire	5NH
1	Pendle	30UJ	East Lancashire	5NH
1	Ribble Valley	30UL	East Lancashire	5NH
1	Rossendale	30UM	East Lancashire	5NH
2	East Riding of Yorkshire	00FB	East Riding of Yorkshire	5NW
4	Eastbourne	21UC	East Sussex Downs and Weald	5P7
4	Lewes	21UF	East Sussex Downs and Weald	5P7
5	Wealden	21UH	East Sussex Downs and Weald	5P7
1	Ashford	29UB	Eastern and Coastal Kent	5QA

Ref	LA	Code	PCT	Code
1	Canterbury	29UC	Eastern and Coastal Kent	5QA
1	Dover	29UE	Eastern and Coastal Kent	5QA
1	Shepway	29UL	Eastern and Coastal Kent	5QA
1	Swale	29UM	Eastern and Coastal Kent	5QA
1	Thanet	29UN	Eastern and Coastal Kent	5QA
2	Enfield	00AK	Enfield	5C1
2	Gateshead	00CH	Gateshead	5KF
1	Cheltenham	23UB	Gloucestershire	5QH
1	Cotswold	23UC	Gloucestershire	5QH
1	Forest of Dean	23UD	Gloucestershire	5QH
1	Gloucester	23UE	Gloucestershire	5QH
1	Stroud	23UF	Gloucestershire	5QH
1	Tewkesbury	23UG	Gloucestershire	5QH
1	Great Yarmouth	33UD	Great Yarmouth and Waveney	5PR
1	Waveney	42UH	Great Yarmouth and Waveney	5PR
2	Greenwich	00AL	Greenwich Teaching	5A8
1	St Helens	00BZ	Halton and St Helens	5NM
1	Halton	00ET	Halton and St Helens	5NM
2	Hammersmith and Fulham	00AN	Hammersmith and Fulham	5H1
1	Basingstoke and Deane	24UB	Hampshire	5QC
1	East Hampshire	24UC	Hampshire	5QC
1	Eastleigh	24UD	Hampshire	5QC
1	Fareham	24UE	Hampshire	5QC
1	Gosport	24UF	Hampshire	5QC
1	Hart	24UG	Hampshire	5QC
1	Havant	24UH	Hampshire	5QC
1	New Forest	24UJ	Hampshire	5QC
1	Rushmoor	24UL	Hampshire	5QC
1	Test Valley	24UN	Hampshire	5QC
1	Winchester	24UP	Hampshire	5QC
2	Haringey	00AP	Haringey Teaching	5C9
2	Harrow	00AQ	Harrow	5K6
2	Hartlepool	00EB	Hartlepool	5D9
4	Hastings	21UD	Hastings and Rother	5P8
4	Rother	21UG	Hastings and Rother	5P8
5	Wealden	21UH	Hastings and Rother	5P8
2	Havering	00AR	Havering	5A4
3	Birmingham	00CN	Heart of Birmingham Teaching	5MX
2	County of Herefordshire	00GA	Herefordshire	5CN
2	Rochdale	00BQ	Heywood, Middleton and Rochdale	5NQ
2	Hillingdon	00AS	Hillingdon	5AT
2	Hounslow	00AT	Hounslow	5HY
2	City of Kingston upon Hull	00FA	Hull	5NX
2	Isle of Wight	00MW	Isle of Wight NHS	5DG
2	Islington	00AU	Islington	5K8
2	Kensington and Chelsea	00AW	Kensington and Chelsea	5LA
2	Kingston upon Thames	00AX	Kingston	5A5
2	Kirklees	00CZ	Kirklees	5N2
2	Knowsley	00BX	Knowsley	5J4
2	Lambeth	00AY	Lambeth	5LD
2	Leeds	00DA	Leeds	5N1
2	Leicester City	00FN	Leicester City	5PC
1	Rutland	00FP	Leicestershire County and Rutland	5PA
1	Blaby	31UB	Leicestershire County and Rutland	5PA

Ref	LA	Code	PCT	Code
1	Charnwood	31UC	Leicestershire County and Rutland	5PA
1	Harborough	31UD	Leicestershire County and Rutland	5PA
1	Hinckley and Bosworth	31UE	Leicestershire County and Rutland	5PA
1	Melton	31UG	Leicestershire County and Rutland	5PA
1	North West Leicestershire	31UH	Leicestershire County and Rutland	5PA
1	Oadby and Wigston	31UJ	Leicestershire County and Rutland	5PA
2	Lewisham	00AZ	Lewisham	5LF
5	North Lincolnshire	00FD	Lincolnshire	5N9
4	Boston	32UB	Lincolnshire	5N9
4	East Lindsey	32UC	Lincolnshire	5N9
4	Lincoln	32UD	Lincolnshire	5N9
4	North Kesteven	32UE	Lincolnshire	5N9
4	South Holland	32UF	Lincolnshire	5N9
4	South Kesteven	32UG	Lincolnshire	5N9
4	West Lindsey	32UH	Lincolnshire	5N9
2	Liverpool	00BY	Liverpool	5NL
2	Luton	00KA	Luton	5GC
2	Manchester	00BN	Manchester	5NT
2	Medway	00LC	Medway	5L3
5	Braintree	22UC	Mid Essex	5PX
4	Chelmsford	22UF	Mid Essex	5PX
4	Maldon	22UK	Mid Essex	5PX
2	Middlesbrough	00EC	Middlesbrough	5KM
4	Milton Keynes	00MG	Milton Keynes	5CQ
5	Aylesbury Vale	11UB	Milton Keynes	5CQ
2	Newcastle upon Tyne	00CJ	Newcastle	5D7
2	Newham	00BB	Newham	5C5
1	Breckland	33UB	Norfolk	5PQ
1	Broadland	33UC	Norfolk	5PQ
1	King's Lynn and West Norfolk	33UE	Norfolk	5PQ
1	North Norfolk	33UF	Norfolk	5PQ
1	Norwich	33UG	Norfolk	5PQ
1	South Norfolk	33UH	Norfolk	5PQ
1	Colchester	22UG	North East Essex	5PW
1	Tendring	22UN	North East Essex	5PW
4	North East Lincolnshire	00FC	North East Lincolnshire	5AN
5	North Lincolnshire	00FD	North East Lincolnshire	5AN
1	Fylde	30UF	North Lancashire	5NF
1	Lancaster	30UH	North Lancashire	5NF
1	Wyre	30UQ	North Lancashire	5NF
5	North Lincolnshire	00FD	North Lincolnshire	5EF
2	North Somerset	00HC	North Somerset	5M8
4	Newcastle-under-Lyme	41UE	North Staffordshire	5PH
5	Staffordshire Moorlands	41UH	North Staffordshire	5PH
2	Stockton-on-Tees	00EF	North Tees	5E1
2	North Tyneside	00CK	North Tyneside	5D8
1	York	00FF	North Yorkshire and York	5NV
1	Craven	36UB	North Yorkshire and York	5NV
1	Hambleton	36UC	North Yorkshire and York	5NV
1	Harrogate	36UD	North Yorkshire and York	5NV
1	Richmondshire	36UE	North Yorkshire and York	5NV

Ref	LA	Code	PCT	Code
1	Ryedale	36UF	North Yorkshire and York	5NV
1	Scarborough	36UG	North Yorkshire and York	5NV
1	Selby	36UH	North Yorkshire and York	5NV
1	Corby	34UB	Northamptonshire	5PD
1	Daventry	34UC	Northamptonshire	5PD
1	East Northamptonshire	34UD	Northamptonshire	5PD
1	Kettering	34UE	Northamptonshire	5PD
1	Northampton	34UF	Northamptonshire	5PD
1	South Northamptonshire	34UG	Northamptonshire	5PD
1	Wellingborough	34UH	Northamptonshire	5PD
1	Alnwick	35UB	Northumberland	TAC
1	Berwick-upon-Tweed	35UC	Northumberland	TAC
1	Blyth Valley	35UD	Northumberland	TAC
1	Castle Morpeth	35UE	Northumberland	TAC
1	Tynedale	35UF	Northumberland	TAC
1	Wansbeck	35UG	Northumberland	TAC
2	City of Nottingham	00FY	Nottingham City	5EM
1	Ashfield	37UB	Nottinghamshire County	5N8
1	Broxtowe	37UD	Nottinghamshire County	5N8
1	Gedling	37UE	Nottinghamshire County	5N8
1	Mansfield	37UF	Nottinghamshire County	5N8
1	Newark and Sherwood	37UG	Nottinghamshire County	5N8
1	Rushcliffe	37UJ	Nottinghamshire County	5N8
2	Oldham	00BP	Oldham	5J5
4	Cherwell	38UB	Oxfordshire	5QE
4	Oxford	38UC	Oxfordshire	5QE
5	South Oxfordshire	38UD	Oxfordshire	5QE
5	Vale of White Horse	38UE	Oxfordshire	5QE
4	West Oxfordshire	38UF	Oxfordshire	5QE
2	City of Peterborough	00JA	Peterborough	5PN
2	City of Plymouth	00HG	Plymouth Teaching	5F1
2	City of Portsmouth	00MR	Portsmouth City Teaching	5FE
2	Redbridge	00BC	Redbridge	5NA
2	Redcar and Cleveland	00EE	Redcar and Cleveland	5QR
2	Richmond upon Thames	00BD	Richmond and Twickenham	5M6
2	Rotherham	00CF	Rotherham	5H8
2	Salford	00BR	Salford	5F5
2	Sandwell	00CS	Sandwell	5PF
2	Sefton	00CA	Sefton	5NJ
2	Sheffield	00CG	Sheffield	5N4
1	Bridgnorth	39UB	Shropshire County	5M2
1	North Shropshire	39UC	Shropshire County	5M2
1	Oswestry	39UD	Shropshire County	5M2
1	Shrewsbury and Atcham	39UE	Shropshire County	5M2
1	South Shropshire	39UF	Shropshire County	5M2
2	Solihull	00CT	Solihull	TAM
1	Mendip	40UB	Somerset	5QL
1	Sedgemoor	40UC	Somerset	5QL
1	South Somerset	40UD	Somerset	5QL
1	Taunton Deane	40UE	Somerset	5QL
1	West Somerset	40UF	Somerset	5QL
3	Birmingham	00CN	South Birmingham	5M1
1	Southend-on-Sea	00KF	South East Essex	5P1
1	Castle Point	22UE	South East Essex	5P1
1	Rochford	22UL	South East Essex	5P1
2	South Gloucestershire	00HD	South Gloucestershire	5A3
1	Cannock Chase	41UB	South Staffordshire	5PK

Ref	LA	Code	PCT	Code
1	East Staffordshire	41UC	South Staffordshire	5PK
1	Lichfield	41UD	South Staffordshire	5PK
1	South Staffordshire	41UF	South Staffordshire	5PK
1	Stafford	41UG	South Staffordshire	5PK
1	Tamworth	41UK	South Staffordshire	5PK
2	South Tyneside	00CL	South Tyneside	5KG
1	Thurrock	00KG	South West Essex	5PY
1	Basildon	22UB	South West Essex	5PY
1	Brentwood	22UD	South West Essex	5PY
2	City of Southampton	00MS	Southampton City	5L1
2	Southwark	00BE	Southwark	5LE
2	Stockport	00BS	Stockport	5F7
4	City of Stoke-on-Trent	00GL	Stoke on Trent	5PJ
5	Staffordshire Moorlands	41UH	Stoke on Trent	5PJ
1	Babergh	42UB	Suffolk	5PT
1	Forest Heath	42UC	Suffolk	5PT
1	Ipswich	42UD	Suffolk	5PT
1	Mid Suffolk	42UE	Suffolk	5PT
1	St. Edmundsbury	42UF	Suffolk	5PT
1	Suffolk Coastal	42UG	Suffolk	5PT
2	Sunderland	00CM	Sunderland Teaching	5KL
4	Elmbridge	43UB	Surrey	5P5
4	Epsom and Ewell	43UC	Surrey	5P5
4	Guildford	43UD	Surrey	5P5
4	Mole Valley	43UE	Surrey	5P5
4	Reigate and Banstead	43UF	Surrey	5P5
5	Runnymede	43UG	Surrey	5P5
4	Spelthorne	43UH	Surrey	5P5
4	Surrey Heath	43UJ	Surrey	5P5
4	Tandridge	43UK	Surrey	5P5
4	Waverley	43UL	Surrey	5P5
4	Woking	43UM	Surrey	5P5
1	Merton	00BA	Sutton and Merton	5M7
1	Sutton	00BF	Sutton and Merton	5M7
4	Swindon	00HX	Swindon	5K3
5	Vale of White Horse	38UE	Swindon	5K3
4	Tameside	00BT	Tameside and Glossop	5LH
5	High Peak	17UH	Tameside and Glossop	5LH
2	Telford and Wrekin	00GF	Telford and Wrekin	5MK
2	Torbay	00HH	Torbay	TAL
2	Tower Hamlets	00BG	Tower Hamlets	5C4
2	Trafford	00BU	Trafford	5NR
2	Wakefield	00DB	Wakefield District	5N3
2	Walsall	00CU	Walsall Teaching	5M3
2	Waltham Forest	00BH	Waltham Forest	5NC
2	Wandsworth	00BJ	Wandsworth	5LG
2	Warrington	00EU	Warrington	5J2
1	North Warwickshire	44UB	Warwickshire	5PM
1	Nuneaton and Bedworth	44UC	Warwickshire	5PM
1	Rugby	44UD	Warwickshire	5PM
1	Stratford-on-Avon	44UE	Warwickshire	5PM
1	Warwick	44UF	Warwickshire	5PM
5	Braintree	22UC	West Essex	5PV
4	Epping Forest	22UH	West Essex	5PV
4	Harlow	22UJ	West Essex	5PV
4	Uttlesford	22UQ	West Essex	5PV
1	Dacorum	26UC	West Hertfordshire	5P4

Ref	LA	Code	PCT	Code
1	Hertsmere	26UE	West Hertfordshire	5P4
1	St. Albans	26UG	West Hertfordshire	5P4
1	Three Rivers	26UJ	West Hertfordshire	5P4
1	Watford	26UK	West Hertfordshire	5P4
1	Dartford	29UD	West Kent	5P9
1	Gravesham	29UG	West Kent	5P9
1	Maidstone	29UH	West Kent	5P9
1	Sevenoaks	29UK	West Kent	5P9
1	Tonbridge and Malling	29UP	West Kent	5P9
1	Tunbridge Wells	29UQ	West Kent	5P9
1	Adur	45UB	West Sussex	5P6
1	Arun	45UC	West Sussex	5P6
1	Chichester	45UD	West Sussex	5P6
1	Crawley	45UE	West Sussex	5P6
1	Horsham	45UF	West Sussex	5P6
1	Mid Sussex	45UG	West Sussex	5P6
1	Worthing	45UH	West Sussex	5P6
4	Chester	13UB	Western Cheshire	5NN
5	Crewe and Nantwich	13UD	Western Cheshire	5NN
4	Ellesmere Port and Neston	13UE	Western Cheshire	5NN
5	Vale Royal	13UH	Western Cheshire	5NN
2	City of Westminster	00BK	Westminster	5LC
1	Kennet	46UB	Wiltshire	5QK
1	North Wiltshire	46UC	Wiltshire	5QK
1	Salisbury	46UD	Wiltshire	5QK
1	West Wiltshire	46UF	Wiltshire	5QK
2	Wirral	00CB	Wirral	5NK
2	City of Wolverhampton	00CW	Wolverhampton City	5MV
1	Bromsgrove	47UB	Worcestershire	5PL
1	Malvern Hills	47UC	Worcestershire	5PL
1	Redditch	47UD	Worcestershire	5PL
1	Worcester	47UE	Worcestershire	5PL
1	Wychavon	47UF	Worcestershire	5PL
1	Wyre Forest	47UG	Worcestershire	5PL

Appendix G - Guide for dates of birth bands for survey of 12-year-olds 2008/09

For this month of exam ↓	Children born within these ranges will definitely be 12 years old		There may also be a few more in these ranges
	Earliest birth month and year	Latest birth month and year	Birth Month / Year Check Day of Birth * and **
October-08	November 1995	September 1996	October 1995 and 1996*
November-08	December 1995	October 1996	November 1995 and 1996*
December-08	January 1996	November 1996	December 1995 and 1996*
January-09	February 1996	December 1996	January 1996 and 1997**
February-09	March 1996	January 1997	February 1996 and 1997**
March-09	April 1996	February 1997	March 1996 and 1997**
April-09	May 1996	March 1997	April 1996 and 1997**
May-09	June 1996	April 1997	May 1996 and 1997**
June-09	July 1996	May 1997	June 1996 and 1997**
July-09	August 1996	June 1997	July 1996 and 1997**

* If born 1995 birth day should be later than day of exam, if born 1996 birth day should be same day or before day of exam.

** If born 1996 birth day should be later than day of exam, if born 1997 birth day should be same day or before day of exam

Appendix H – Consent letter for parents for most PCTs / LAs

Suggested letter of information for parents.

To be added to PCT headed notepaper - minor modifications are acceptable, local details to be added.

Dear Parent /Guardian,

Dental survey of 12 year-olds

Please will you help us to plan better dental services? To do this we look at the teeth of groups of 12-year-old pupils every four years. We can then compare dental health in different parts of your Local Authority area and with other areas in England.

The survey is planned to take place on ……..and your child may be asked to take part. The volunteers taking part will have a simple examination at school when a dentist and assistant, who are specially trained to do this work, will visit. The dentist will use fresh disposable gloves and sterilised equipment for each volunteer. The check takes only a few minutes and we will let you know if we find anything that needs checking further by your own dentist.

The pupils will be asked to give their own consent to take part in this year's survey. If you do not want your child to take part, please complete the attached slip and return it to school.

As part of the survey we will be asking the school to share some information they already have, for example postcodes or ethnic group. The information will be anonymised and stored in a computer which will be password protected and only dental staff will have access to it. The anonymised results will be sent to the national centre so that they can be compared with all Local Authorities and PCTs and with findings from previous years and those collected in the future. The findings for England may be published in a scientific journal, along with those for Wales and Scotland. No individual will be identifiable and the analysis and reporting will be carried out on groups.

If you have any questions please contact me on (insert local organiser's telephone number).

Thank you for your co-operation.

Yours sincerely,

Name and title

……

School Name …….

I do not want my child (insert child's name)…….Class ……..

to be asked to take part in the National Dental Survey

Signed……. (parent/guardian)

Date……..

Appendix I –

STANDARD CONSENT SCRIPT

You have been chosen to take part in a dental survey. The survey will help us plan dental services.

An assistant will ask you some easy questions then a dentist will look in your mouth and at your teeth and record what they see and measure. No treatment will be done and this survey does not replace your regular visits to your dentist. You will be told if something is wrong, but we cannot arrange treatment for you.

We will look at the information from the survey and will work out the results for this area and compare it with the rest of the country.

We will not collect your name, so you cannot be identified.
However, if we see something serious that needs urgent follow up, we will write to tell your parents.

(For Group Use) When it is your turn you will have a chance to ask questions and we will ask you to take part in the survey. You do not have to take part if you do not want to.

Please help us by taking part in the dental survey.

Thank you.

(Before proceeding with the survey) Did you understand what you were told about this survey? Do you have any questions? Are you happy to take part?

Appendix J – List for self identification of ethnic group

Which of these ethnic groups do you think you belong to?

A	White	British Any other white background	A
B	Mixed	White and Black Caribbean White and Black African White and Asian Any other Mixed background	B
C	Asian or Asian British	Indian	C
D		Pakistani	D
E		Bangladeshi	E
F		Any other Asian background	F
G	Black or Black British	Caribbean	G
H		African	H
I		Any other Black background	I
J	Chinese or other ethnic group	Chinese	J
K	Other ethnic group		K

Appendix K – Data Collection Form

1. LA code |__|__|__|__|__|__| 2. New PCT code |__|__|__|__|__|__| (3.Old PCT code|__|__|__|)

4. Examiner _____ 5. School name _____

6. School postcode |__|__|__|__| |__|__|__| 7. Date of examination |__|__|__|__|__|__|

8. Pupil identity number |__|__|__|__|__|__| 9. Month/Year of birth |__|__|__|__|__|__|

10. Home postcode |__|__|__|__| |__|__|__|

11. Sample group code |__| 0 - Main survey sample (coterminous PCT/LA); 1 - Additional sample A; 2 - Additional sample B; 3 - Additional sample C; 4 - Additional sample D; 5 - Additional sample E

12. Consent status |__| 0 – Parent withdrew child; 1 – Pupil consented after explanation and opportunity to ask questions; 2 – Pupil refused consent; 3 – Pupil absent when consent sought
(no further details should recorded for children who refuse or who were absent)

13. Examination type |__| 0 - Main; 1- Repeat; 2 - Training; 3 - Absent at examination; 4 – Refused at examination
(no further details should be recorded for those absent or refused)

Score code "9 – Not answered" if no clear answer given from the child

14. "Do you have any white marks on your front teeth that won't brush off?" |__| 1-Yes 2- No 3-Don't know
Go to Q16 Go to Q16

15. **IF YES** ask : "Does the appearance of these marks bother you?" |__| 1-Yes 2- No 3-Don't know

16. Ask **ALL** : "Thinking about white marks on teeth, do you think your front teeth look more like those in this group, or the ones in this group, or this group ?"
Show the three sets of photographs showing groups of teeth with varying types of appearance |__| 1 - Set N; 2 - Set S; 3 - Set A; 4-Don't know

17. Ask **ALL** : "In the past 3 months have you
had toothache or sensitive teeth |__| 1 - Yes; 2- No; 3 - Don't know
had bleeding or swollen gums |__| 1 - Yes; 2- No; 3 - Don't know
been aware of decay in your teeth or a broken adult tooth**"** |__| 1 - Yes; 2- No; 3 - Don't know

Ask **ALL** : "In the past 3 months have you
had ulcers or a loose baby tooth |__| 1 - Yes; 2- No; 3 - Don't know
had a problem because of tooth colour, shape, size or position" |__| 1 - Yes; 2- No; 3 - Don't know

18. **IF YES** is reported to **<u>one or more</u>** of the **<u>first three</u>** conditions ask :
"Have any of these problems with your teeth and mouth led to difficulties with:

Eating	|__|	0-None 1 – a little 2- moderate 3 - a lot
Speaking	|__|	0-None 1 – a little 2- moderate 3 - a lot
Cleaning your teeth	|__|	0-None 1 – a little 2- moderate 3 - a lot
Relaxing (including sleeping)	|__|	0-None 1 – a little 2- moderate 3 - a lot
Your feelings (for example being more impatient, irritable, easily upset)	|__|	0-None 1 – a little 2- moderate 3 - a lot
Smiling or laughing	|__|	0-None 1 – a little 2- moderate 3 - a lot
Doing your schoolwork	|__|	0-None 1 – a little 2- moderate 3 - a lot
Mixing with friends and other people"	|__|	0-None 1 – a little 2- moderate 3 - a lot

19. Ask **ALL** : "How often do you usually brush your teeth?" |__| 0-Never 1 –less than once a day 2- once a day 3-twice a day 4-more than twice a day

20. Optional - Ethnicity |__|

A. White	E. Bangladeshi	I. Black Other	K. Ethnic other A
B. Mixed	F. Other Asian	J. Chinese	L. Ethnic other B
C. Indian	G. Black Caribbean		M. Ethnic other C
D. Pakistani	H. Black African		

21. Ask **ALL** : "Are you currently wearing an orthodontic appliance / brace?"

|__| 0 – Yes, seen (go to exam, IOTN exam **not** needed); 1 –Yes, not seen (go to IOTN exam, Q22 & 23 **not** required)
2 - No (go to Q22, IOTN exam required)

22. **IF NO to Q21** ask : "Do you think your teeth need straightening?"

|__| 1 – Yes (go to Q23); 2 - No (go to IOTN exam); 3- Don't know (go to IOTN exam)

23. **IF YES to Q22** ask : "Would you be prepared to wear a brace if it were necessary?"

|__| 1 - Yes; 2- No; 3 - Don't know

Clinical examination

24. IOTN Aesthetic Component score |__| 1 – 10 (1-7 no AC need; 8-10 AC need)

25. IOTN Dental Health Component score |__| 0 – no definite need; 1 – definite need

26. Plaque measurement |__| 0 - Teeth appear clean; 1- Little plaque visible;
2 - Substantial amount of plaque visible; 9 - Assessment could not be made

Caries recording

Right **UPPER** **Left**

	7	6	5	4	3	2	1	1	2	3	4	5	6	7	
D															**D**
O															**O**
M															**M**
B															**B**
L															**L**

Right **LOWER** **Left**

	7	6	5	4	3	2	1	1	2	3	4	5	6	7	
D															**D**
O															**O**
M															**M**
B															**B**
L															**L**

Tooth Codes

Extracted caries.....	**6**
Extracted ortho ……	**7**
Unerupted or missing other.....	**8**

Surface Codes

Sound..... Blank, '-' , Or	**0**
Hard, arrested caries.....	**1**
Decayed.....	**2**
Decay + pulpal involvement.....	**3**
Roots only remaining…… .	**3**
Filled and decayed.....	**4**

Surface Codes continued

Filled.....	**5**
Filled, needs replacement.....	**R**
Obvious sealant rest'n.....	**N**
Sealed surface	**$**
Crown	**C**
Trauma.....	**T**

Additional optional Measures

27. Spare variable |__| 0 - 1 - 2 - 3 -

28. Spare variable |__| 0 - 1 - 2 - 3 –

29. Spare variable |__| 0 - 1 - 2 - 3 -

Appendix L - Examination sheet – optional use

National dental survey of 12-year-olds

Name of School …… School postcode …… ….
Date of examination _ _ / _ _ / _ _ _ _ Name of school contact……

This column to be deleted as soon as possible				Examination status	
Pupil name	ID Number	Date of birth	Postcode	Examined	Absent

Appendix M – **Table for recording numbers eligible, sampled, consented and examined or otherwise by school (optional use)**

School name	Number age eligible	N sampled	N Parent withheld consent	N child refused	N child agreed to participate	N examined	N absent
Total							

Appendix N - Format for Dental Survey Plus 2 – downloadable from
www.bascd.org.uk
www.dental-observatory.co.uk
http://pcwww.liv.ac.uk/~gburnsid/bascd.htm

12-YEAR-OLDS 2008/09 NATIONAL SURVEY

Examination and School Details

1. LA CODE
2. NEW PCT CODE
3. OLD PCT CODE
4. EXAMINER
5. SCHOOL NAME
6. SCHOOL POSTCODE — AANN NAA
7. DATE OF EXAMINATION — d d m m y y y y

Pupil's Details

8. PUPIL IDENTITY NUMBER
9. MONTH / YEAR OF BIRTH
10. HOME POST CODE — AANN NAA

Consent and Examination

11. SAMPLE SUB-GROUP
12. CONSENT STATUS
13. EXAMINATION TYPE

IF CHILD IS WITHDRAWN, HAS REFUSED OR IS ABSENT DO NOT ENTER ANY MORE DATA!!

Questionnaire Data

14. Do you have any white marks on your front teeth that won't brush off ?

If YES

15. Does the appearance of these marks bother you ?

16. Thinking about white marks on teeth - which group do you think your teeth look more like ?

17. In the past 3 months have you -

a) had toothache or sensitive teeth ?

b) had bleeding or swollen gums ?

c) been aware of decay in your teeth or a broken adult tooth ?

d) had ulcers or a loose baby tooth ?

e) had a problem because of tooth colour, shape, size or position ?

If YES to a, b or c

18. Have any of these problems with your teeth and mouth led to difficulties with -

a) eating ?

b) speaking ?

c) cleaning your teeh ?

d) relaxing (including sleeping) ?

e) your feelings ?
(eg: being more impatient, irritable, easily upset)

f) smiling or laughing ?

g) doing your schoolwork ?

h) mixing with friends and other people ?

19. How often do you usually brush your teeth ?

Optional Ethnicity Details

20. ETHNICITY

Orthodontic Questions

21. Are you currently wearing an orthodontic appliance or brace ?

If NO

22. Do you think your teeth need straightening ?

If YES

23. Would you be prepared to wear a brace if it were necessary ?

If NOT wearing appliance or wearing but NOT SEEN - IOTN Examination

24. AESTHETIC COMPONENT

25. DENTAL HEALTH COMPONENT

Oral Cleanliness

26. PLAQUE MEASUREMENT

Upper Right

	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8
D	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
O	8	0	0	0	0							0	0	0	0	8
M	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
B	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
L	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8

Upper Left

Lower Right

	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8
D	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
O	8	0	0	0	0							0	0	0	0	8
M	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
B	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
L	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8

Lower Left

Spare Details

27. SPARE 1

28. SPARE 2

29. SPARE 3

Appendix O - Summary information sheet - will be available for reporting PCTs as Excel file from The Dental Observatory

THE DENTAL OBSERVATORY

NHS Programme of Caries Prevalence Studies

Survey of 12 Year old Children 2008/09

REPORTING FORM

Primary Care Trust _____

Name of examiner (s) _____

Start/finish date of examination (dd/mm/yyyy-dd/mm/yyyy) [ ] - [ ]

Number of children in school population aged 12 years [ ]

Total number of schools with 12-year-old children [ ]

Number of schools visited [ ]

Total number of children sampled [ ]

Number of children (consent) : **parent withdrew child** [ ] **child absent when consent sought** [ ]

child gave consent [ ] **child refused consent** [ ]

Number of children (examination) : **examined** [ ] **absent** [ ] **refused** [ ]

Please give answers rounded to 2 decimal places

	Mean	Standard Deviation	95% C.L. of Mean Lower	Upper
DT				
MT				
FT				
DMFT				
Sealed teeth (code $T)				
Sound teeth (including Sound and Sealed - code SS$T)				

	Number	Percentage	Mean	Standard Deviation	95% C.L. of Mean Lower	Upper
With caries experience (DMFT >0)						
With current dentinal decay (DT>0)						

I confirm that this data was collected in accordance with the British Association for the Study of Community Dentistry guidelines (1992/93)

Signed _____ **Date :** _____

Appendix P Questionnaire about Process – will form information item **3a**

Reporting on the process of data collection
to be saved with name PCTCode_3a.

Were all mainstream schools containing 12-year-old children within the PCT included at the start of the sampling process?	Yes	
	No	

Was consent sought according to the National Protocol?	Yes	
	No	
If 'no' please explain alternative procedure used:		

Were all children selected by random sampling approached for consent?	Yes	
	No	

Were all consented children examined – except for those absent?	Yes	
	No	

Were additional samples taken for local purpose or 'additional codes' to comply with sampling guidance	Yes	
	No	

If yes - explanation of additional samples:		
A		
B		
C		
D		
E		
Was it necessary for weighting to be applied to calculate PCT estimates?	Yes	
	No	

Appendix Q Experiences of PCT Dental Service Epidemiology Teams when seeking positive consent to epidemiological surveys among 12 yr old children

Please report your experiences of running the consent process for this survey. This will help with assessment of the process and future planning.

Name of PCT

Did any schools object to the consent process ? If yes please give details

Did any parents object to the consent process? If yes please give details

Approximately how many children asked questions after the standard explanation?

Any other comments or observations about the consent process? *e.g. Did the children listen to the explanation? Did they appear to understand?* *Did most agree readily? Did any express concerns after they had been examined?*