Healthcare: Oxford MDR
Steve Harris

annotation

USING METADATA

office plugins

- allow user access to knowledge resources at the point of need
  - excel: terminology and metadata elements
  - UML modelling: terminology, metadata elements and model fragments
  - infopath : terminology and metadata elements and document fragments

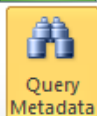File | Home | Insert | Page Layout | Formulas | Data | Review | View | Developer | Oxford Metadata | Load Test | Team

Create CDE | Settings
Export XML
Query Metadata | Submit Model
Metadata Services

A1

	A	B	C	D	E	F	G	H	I
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									

Sheet1 | Sheet2 | Sheet3

Ready

Query Metadata

Free Text | Classification

Controls

caDSR-DataElement

Blood*

Query completed | Search

Results

Blood Vessel Clamped Time
Blood Transfusion Timepoint Administered Type
Blood Transfusion Autologous Indicator
Blood Transfusion Autologous Unit Number
Blood Transfusion Allogenic Indicator
Blood Transfusion Allogenic Unit Number
Blood Tissue Specimen Other Diseases and Disord
Blood Tissue Specimen Other Diseases and Disord
Blood Test Type
Blood Test Result Value Number
Blood Test Response Text Type
Blood Test Name

< | > | Use

Details

Definition | Props/Values

The name of the blood test associated with a time point for the agent administration.

100%

registering the design

File Edit View Project Diagram Element Tools Add-Ins Settings Window Help

<default>

Logical Diagram: "Class Model" created: 19/11/2005 modified: 10/01/2006 100% 827 x 1169

«enumeration»
Enum_ECOG_Performance_Status

«enum»
0
1
2
3
4
5

ECOG_Performance_Status

+ definition: string = Used to assess ... {readOnly}
+ id: string = GB-CANCERGRID-D... {readOnly}

CancerGrid Query Service

Free Text | Classification

Controls

cgMDR-CG1

ecog

Query completed.   Search

Results

ECOG Performance Status
ECOG performance status is 0, 1 or 2

<<   >>   Use

Details

Definition | Props/Values

Code	Meaning
0	Normal
1	Symptomatic: fully ambulatory
2	Symptomatic: in bed less than 50% of the time
3	Symptomatic: in bed greater than 50% of the time
4	100% bedridden
5	unknown death dead

Start Page   *Class Model

System   Output

Default Style

Ready

start   bin   Tomcat   test2 - EA - 30 Day Trial   CancerGrid Query Se...   00:04

nci.nih.gov:ncit:C12325

GB-CANCERGRID-GHDF1SE-1.5

GB-CANCERGRID-WESD456-1.3

nci.nih.gov:ncit:C43586

US-CABIG-343556-15.0

class model

patient

trial_no: int

0..5

followup_visit

- date: int
- perf_status: char
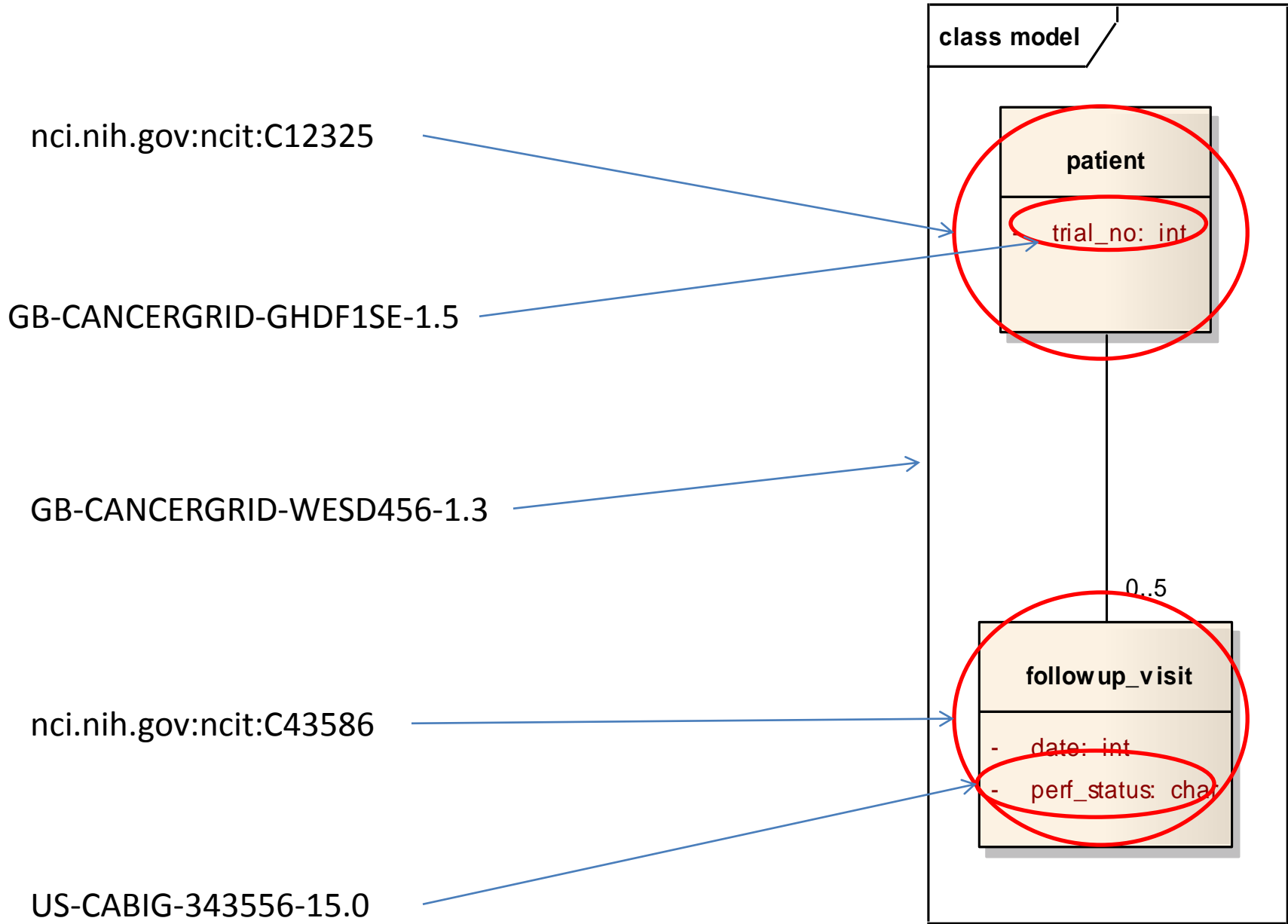
Form generation
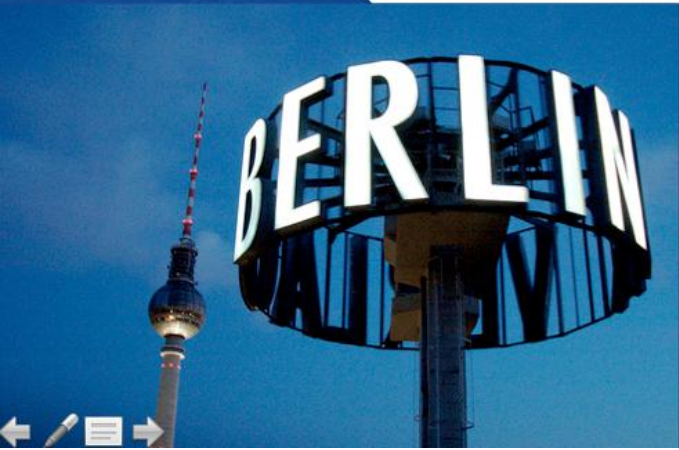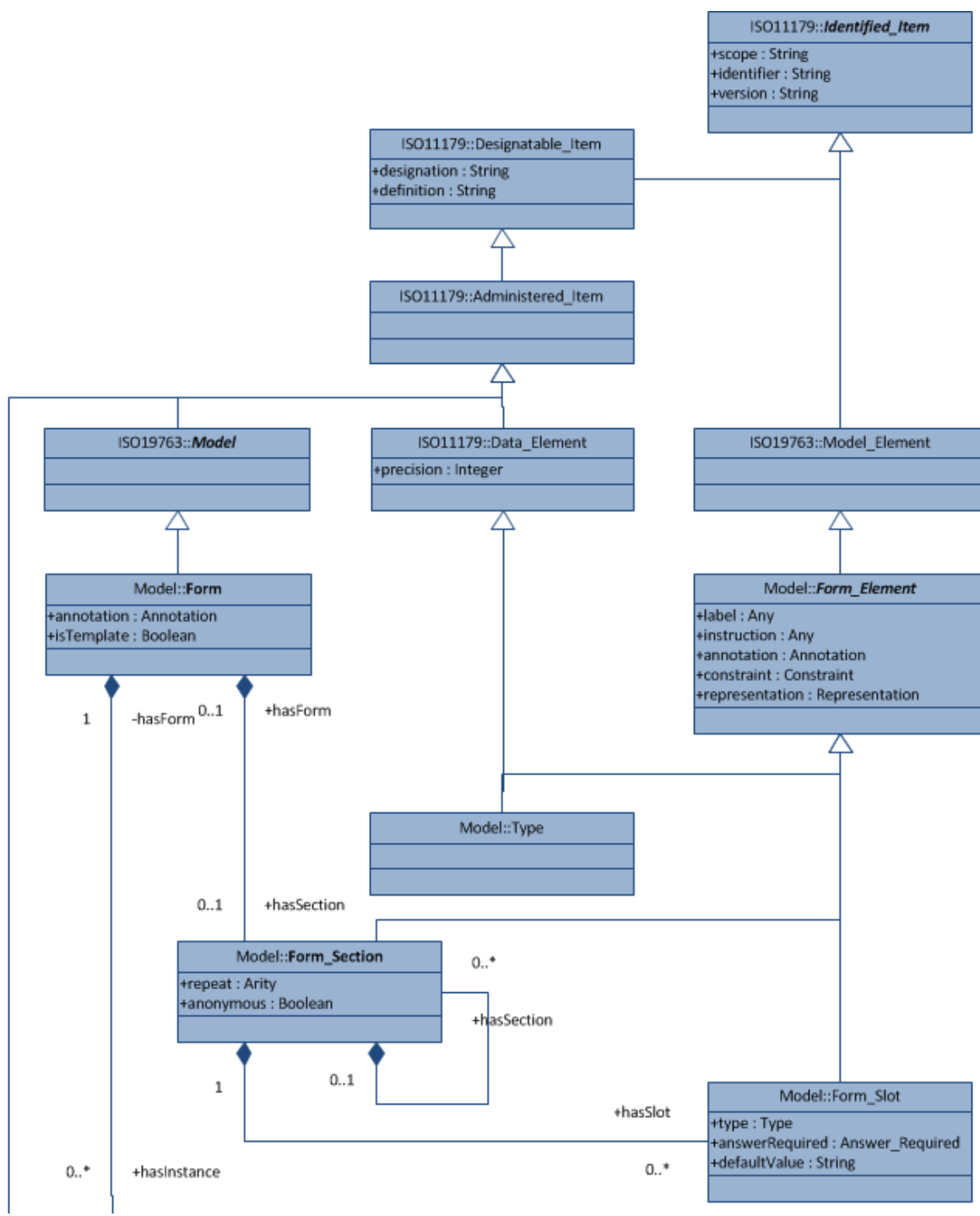
integration – InfoPath 2007

- in clinical trial designs
  - incorporate metadata element into forms
  - qualify the meaning of sections on forms
  - define eligibility criteria/stratification variables
- in data capture forms
  - large/dynamic enumerated value domains: drug names; identifiers for clinical centres; ontology sub-trees

Eligibility.xml - Microsoft Office InfoPath

File   Edit   View   Insert   Format   Tools   Table   CancerGrid   Help

Type a question for help

Verdana   10

cancergrid
trial designer

Trial event: eligibility
Intervention codes:
☑ Insert intervention code
Form control name: Eligibility
Namespace prefix: CCVTM
Namespace: http://www.cancergrid.org/CCVTM/crf/2009-01-14/

Add and select controls in this table then edit the details for the control below.

Eligibility	Eligibility
InclusionCriteria	Inclusion Criteria
*	
*	
*	

☑ Insert control

General control details
Control name: Eligibility
Title: Eligibility
Tool tip:
○ Click here to insert expression describing when to disable the control
○ Click here to insert expression describing when control data is invalid

Section
Contained Control Names
InclusionCriteria
☑ Insert item
Protocol:

The following set of concepts describe the context of this section:

Concept
Id:
US-NCICB-CACORE-EVS-DESCLOGICCONCEPT-C16112

Preferred name:
Clinical Trial Eligibility Criteria

Alternative names:
1. Clinical Trial Eligibility Criteria
2. Clinical_Trial_Eligibility_Criteria

Query Service Control

Free Text | Classification

Controls
EVS-DescLogicConcept

inclusion criteria

Query completed.   Search

Results
Inclusion Criteria

<   >   Use

Details
Definition | Props/Values

<def-source>NCI</def-source><def-definition>Medical and/or social characteristics which are necessary for a subject to be allowed to participate in a clinical study, as outlined in the study protocol. Meeting inclusion criteria is not a sufficient condition for entry or recruitment of a subject into the study. Characteristics limiting the eligibility of a subject for the clinical study must be

Form template's location: http://cg1.comlab.ox.ac.uk

File   Edit   View   Insert   Format   Tools   Table   CancerGrid   Help

Type a question for help

Metadata   Errors

Case Report Form Design

cancergrid
trial designer

Trial event:	eligibility
Intervention codes:	
	Insert intervention code
Form control name:	Eligibility
Namespace prefix:	CCVTM
Namespace:	http://www.cancergrid.org/CCVTM/crf/2009-01-14/

Add and select controls in this table then edit the details for the control below.

Eligibility	Eligibility
InclusionCriteria	Inclusion Criteria
ExclusionCriteria	Exclusion Criteria
ParentConsent	the parent or guardian of the child to be enrolled into the study is willing and able...
ChildAgeRequirement	child aged 3 years 4 months and above

Insert control

General control details

Control name:	InclusionCriteria
Title:	Inclusion Criteria
Tool tip:	

○ Click here to insert expression describing when to disable the control
○ Click here to insert expression describing when control data is invalid

Section

Contained Control Names

ParentConsent

ChildAgeRequirement

Insert item

Protocol:

Participants eligible to be enrolled into the study

The following set of concepts describe the context of this section:

Concept

Query Service Control

Free Text | Classification

Controls

cgMDR

child

Query completed.   Search

Results

Common Toxicity Criteria Adverse
child aged 3 years 4 months and a
parent or guardian willing and able

<   >   Use

Details

Definition | Props/Values

please complete
definition...

File　Edit　View　Insert　Format　Tools　Table　CancerGrid　Help

Type a question for help

Verdana　8

cancergrid
trial designer

Trial event:	eligibility
Intervention codes:	
	☑ Insert intervention code
Form control name:	Eligibility
Namespace prefix:	CCVTM
Namespace:	http://www.cancergrid.org/CCVTM/crf/2009-01-14/

Add and select controls in this table then edit the details for the control below.

Eligibility	Eligibility
InclusionCriteria	Inclusion Criteria
ExclusionCriteria	Exclusion Criteria
ParentConsent	the parent or guardian of the child to be enrolled into the study is willing and able...
ChildAgeRequirement	child aged 3 years 4 months and above
GPConsultantNotification	willing to allow his or her GP and Consultant to be notified of participation in the ...
HepititisVaccinationCommenced	commenced Hepatitis B post exposure prophylaxis at birth
StudyRequirements	Able (in the Investigator's opinion) and willing to comply with all study requireme...
*	

☑ Insert control

General control details

Control name: StudyRequirements

Title: Able (in the Investigator's opinion) and willing to comply with all study requirements

Tool tip:

○ Click here to insert expression describing when to disable the control
○ Click here to insert expression describing when control data is invalid

Field details

Min Occurs: 1　　Max Occurs: 1

The type of the field is determined by a data element:

Data element

ID
GB-CANCERGRID-OX-57BC835E5-1

Preferred name
Able and willing to comply with study requirements

Alternative names:

Definition:
Able (in the Investigator's opinion) and willing to comply with all study requirements

Code	Meaning
no	no
yes	yes

Query Service Control

Free Text　Classification

Controls
cgMDR

able

Query completed.　　Search

Results
Able and willing to comply with stu
Breast Tumor Location data eleme
Breast Tumour Location
Chemotherapy will be given to the
Common Toxicity Criteria Adverse I
Disease Stage data element
ETHNIC CATEGORY
Patient Sex data element
Patient Trial Number (CRUK Trials
Patient date of second surgery

<　　>　　Use

Details

Definition　Props/Values

Able (in the
Investigator's
opinion) and willing
to comply with all
study requirements

Save | Close | View Visit 1 | Print View   Powered by: InfoPath Forms Services

| Identification | Visit 1 | Visit 2 | Notes |

Centre Number:
00001

Researcher Number:
004

Participant Number:
001

Oxford Vaccine Group
Paediatric Infectious Diseases, Clinical Vaccine Research & Immunisation Education

Hepatitis B Booster Study

Visit 1 Date:
16/03/2009

Informed Consent:
yes

Inclusion Criteria

1. Parent Consent — yes

2. Child Age Requirement — yes

3. GP/Consultant Notification — yes

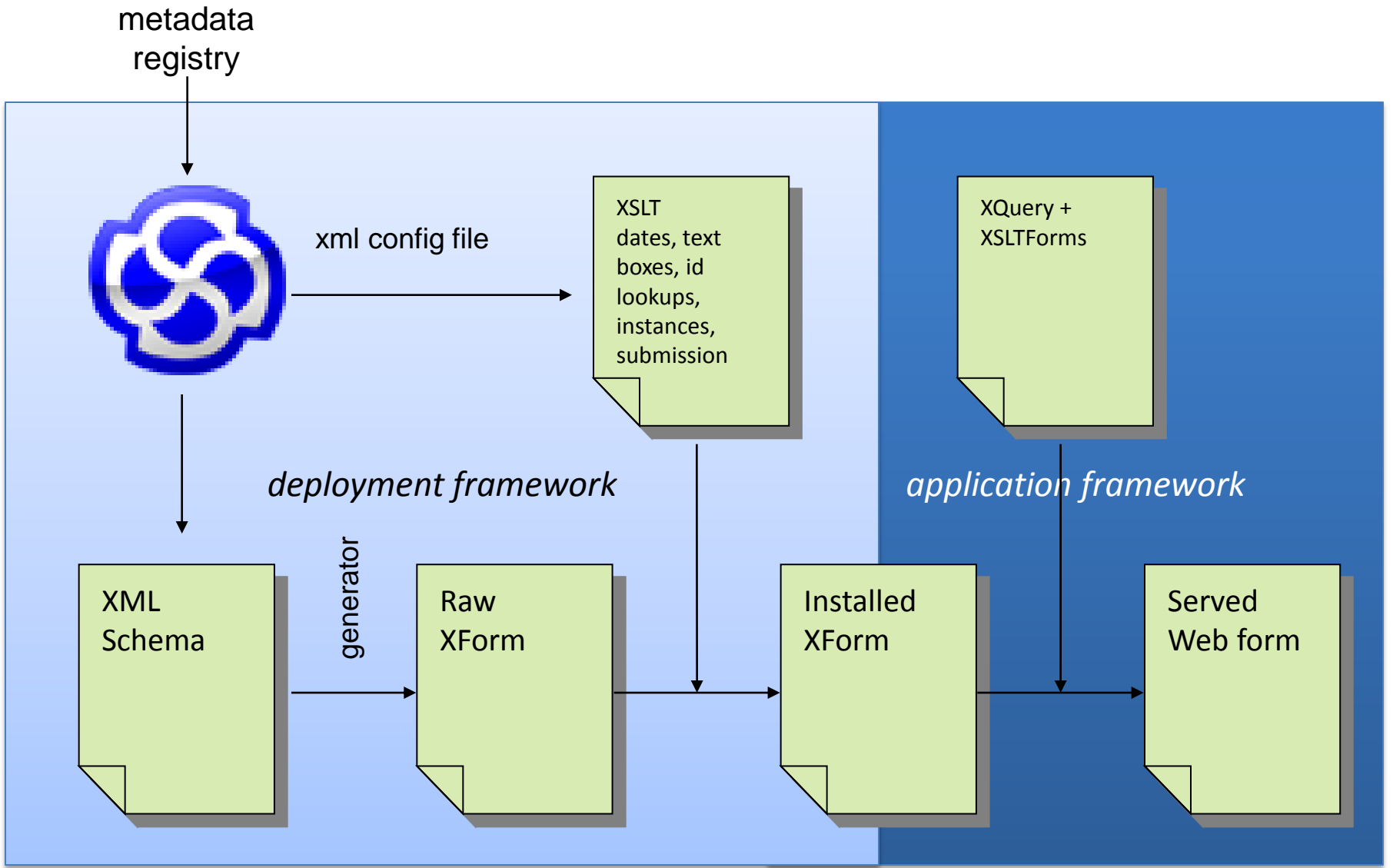4. Hepatitis Vaccination Commenced — yes

5. Study Requirements — yes

XForms

- W3C standard
- declarative form language
- replace HTML forms
- *cf* Adobe Flex, MS Silverlight, Mozilla XUL

metadata
registry

xml config file

XSLT
dates, text
boxes, id
lookups,
instances,
submission

XQuery +
XSLTForms

deployment framework

application framework

XML
Schema

generator

Raw
XForm

Installed
XForm

Served
Web form

what it does

- enumerated simple types => drop down lists
- date => date selector
- required controls => visual indication of mandatory nature and requirement for completion for submit
- data types enforced on input fields (numerics, non-negative integers ...)
- additional scripting changes xf:input to xf:textarea, replaces xf:input with server-supplied combo/list box, interfaces with lookup popups ...

generated control

```
<xforms:input
        ref="//cgMDR:change_description">
        <xforms:label>change_description</xforms:label>
</xforms:input>
```

customising template (replace all change description controls with a memo field – generated from specification document)

```
<xsl:template match=
"xforms:input[ends-with(./@ref,'cgMDR:change_description')]">
        <xforms:textarea
            ref="//cgMDR:change_description">
            <xforms:label>Change Description </xforms:label>
        </xforms:textarea>
</xsl:template>
```

deployed control

```
<xforms:textarea
        ref="//cgMDR:change_description">
        <xforms:label>Change Description</xforms:label>
</xforms:textarea>
```

Study

Item Registration Authority Identifier	Select... ▼ * ⊗
Data Identifier	3F9FD5A0B1DE43D3AED20B92D3E98F0E *
Version	1 *

Administration Record

Registration Status	Select... ▼ * ⊗
Administrative Status	Select... ▼ * ⊗
Creation Date	05/28/2012 ...
Effective Date	05/28/2012 ...
Last Change Date	05/28/2012 ...
Until Date	01/01/2020 ...

Administrative Note

Change Description

Explanatory Comment

Data discovery

PAGE 5 OF THE QUESTIONNAIRE
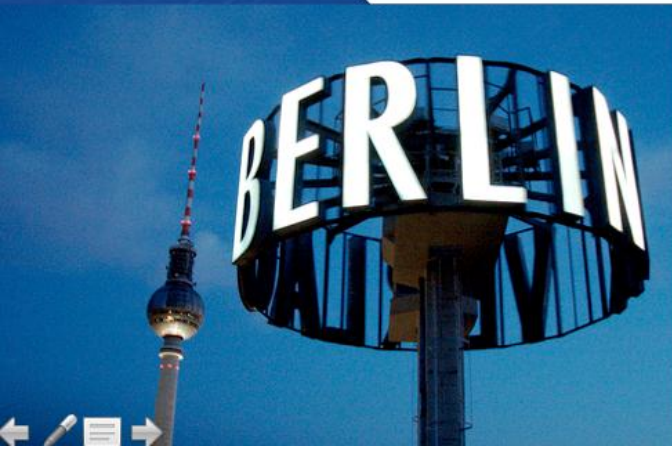
A22. Children in our class fight a lot

Yes ☐1   No ☐2

A23. A few children in my class want to be first all of the time

Yes ☐1   No ☐2

A24. Most of the pupils in my class know how to do their work

Yes ☐1   No ☐2

ccd200 A21: The class is fun

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	3270	39.9	40.2	40.2
	2 Sometimes	4552	55.5	55.9	96.1
	3 No	321	3.9	3.9	100.0
	Total	8143	99.4	100.0	
Missing	-1 No response	53	.6		
Total		8196	100.0		

ccd205 A22: Children in child's class fight a lot

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	1658	20.2	20.4	20.4
	2 No	6426	78.4	79.1	99.6
	3 Sometimes	36	.4	.4	100.0
	Total	8120	99.1	100.0	
Missing	-1 No response	76	.9		
Total		8196	100.0		

ccd210 A23: A few children in child's class want to be first all the time

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	5446	66.4	67.3	67.3
	2 No	2634	32.1	32.5	99.8
	3 Sometimes	17	.2	.2	100.0
	Total	8097	98.8	100.0	
Missing	-9 Don't know	1	.0		
	-1 No response	98	1.2		
	Total	99	1.2		
Total		8196	100.0		

ccd215 A24: Most of the pupils in child's class know how to do their work

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	7421	90.5	91.4	91.4
	2 No	687	8.4	8.5	99.9
	3 Sometimes	11	.1	.1	100.0
	Total	8119	99.1	100.0	
Missing	-1 No response	77	.9		
Total		8196	100.0		

MRC | Data Support Service

| browse | search | discover | understand | login |

Model: KA SPSS Data Dictionary

as XSD   as XML

Administered Item - Preferred Name: KA SPSS Data Dictionary

Administered Item Identifier	GB-OUCL-473688D8-1.0
Registration Status *explain*	Application
Definition	test
Registered By	Steve Harris (Research Fellow) Oxford Comlab

Model Specific Attributes

Mime-type	text/xml
Model Type	SPSS Metadata File
Model Content	**Download**

Annotations

identifier	names	related to	how
GB-OUCL-5DBCC03E-1.0	**Questionnaire version (Form type)** ka001	**GB-OUCL-AD1B9D47-1.0**	sameAs
GB-OUCL-468D233C-1.0	**Reaction at birth** ka010	**GB-OUCL-E5C6AD44-1.0**	sameAs
GB-OUCL-1E2D0AEA-1.0	**Time until put to breast** ka011	**GB-OUCL-0126D16D-1.0**	sameAs
GB-OUCL-1143400B-1.0	**Time next to mum in 1st 2 days** ka012	**GB-OUCL-0908C607-1.0**	sameAs
GB-OUCL-D1C68AD5-1.0	**Time next to mum in 1st 2 nights** ka013	**GB-OUCL-97D01A7B-1.0**	sameAs
GB-OUCL-3B4C55B6-1.0	**Time next to mum in 1st 2 nights (adjusted)** ka013a	**GB-OUCL-03B88B17-1.0**	sameAs
GB-OUCL-0D5AB2E1-1.0	**Admission to SCBU etc** ka014	**GB-OUCL-13BAAA42-1.0**	sameAs
GB-OUCL-92534E0B-1.0	**Readmitted to hospital** ka020	**GB-OUCL-1C06DB4D-1.0**	sameAs
GB-OUCL-E8884D70-1.0	**Duration of stay** ka021	**GB-OUCL-241A9B79-1.0**	sameAs

MRC | Data Support Service

metadata registry

browse   search   discover   understand   login

Data Element: Baby breast fed

as XML

Administered Item - Preferred Name: Baby breast fed

Administered Item Identifier	GB-OUCL-91690359-1.0
Registration Status *explain*	Application
Definition	(undefined)
Registered By	Steve Harris (Research Fellow) Oxford Comlab

Value Domain Attributes

Value domain record	Baby breast fed
Conceptual Domain	Baby breast fed
Datatype	xs:string (XML Schema)
Unit of Measure	
Format	not specified
Maximum Character Quantity	not specified
Representation Class	

Valid Values

Valid Values	value	meaning	uri
	-1	Missing	
	1	Always	
	2	Often	
	3	Sometimes	
	4	Never	

Field Names

Field Names	field name	preferred
	ka094	true

Model Reference

Expresses data element concept (full record)	Baby breast fed
Object class	default object class
Property	default property
Precision	0
Example	not specified
Typed by Representation Class	not-specified
Representation Class Qualifier	unqualified
Related data elements	

Reference Documents

Reference Documents	id	language	title	description
	C5DD288C6	eng	ka094 Baby breast fed	Frequency plots associated with ALSPAC variables

Naming

24

Representation Class Qualifier   unqualified
Related data elements

Reference Documents

id	language	title	description
C5DD288C6	eng	ka094 Baby breast fed	Frequency plots associated with ALSPAC variables
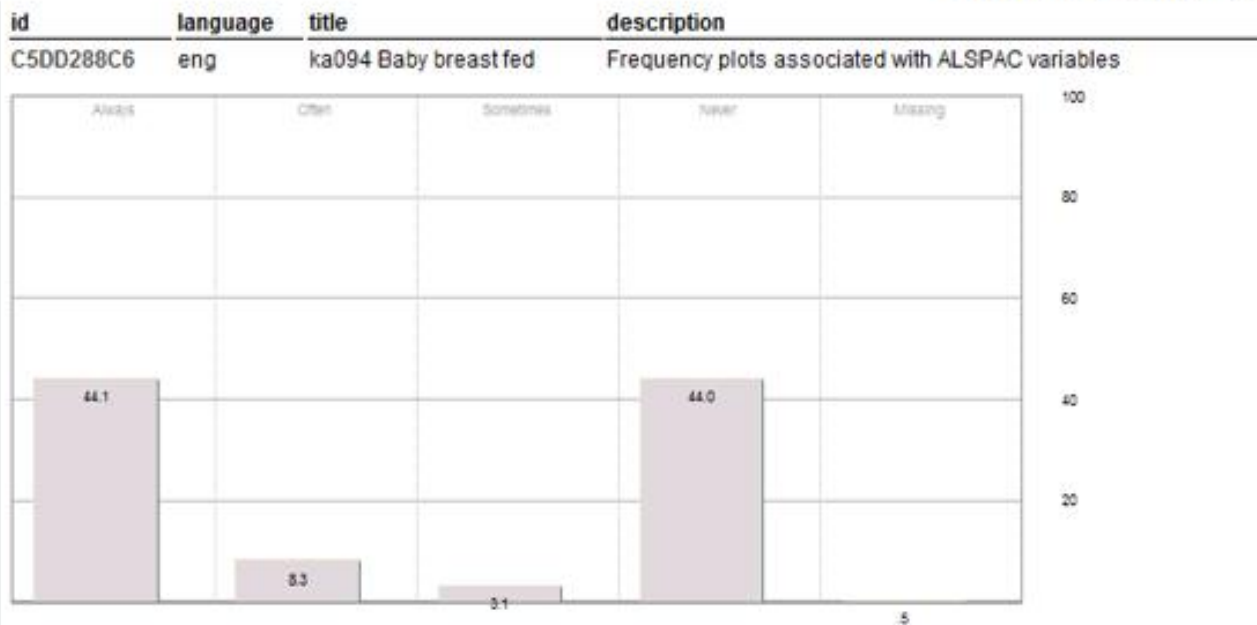
Naming	context	language	name	preferred
	Avon Longitudinal Study of Parents and Children	GB-eng	Baby breast fed	true
	Avon Longitudinal Study of Parents and Children	GB-eng	ka094	false

Administrative Status *explain*	noPendingChanges
Administered By	Steve Harris Research Fellow
Created On	not-specified
Effective From	not-specified

25

Variable: 'Can carer understand child' Speech Q 25 mth

supersede	edit	as XSD	as XML

Administered Item - Preferred Name: 'Can carer understand child' Speech Q 25 mth

Administered Item Identifier	GB-OUCL-7D36B7A8443C4E7E91E418677117EC83-1 add to cart
Registration Status *explain*	Recorded
Definition	not-specified
Registered By	Dr. Steve Harris (Researcher, IDH)
	Oxford Comlab

Value Domain Attributes

Value domain record	Value domain for cf414
Conceptual Domain	Conceptual domain for cf414
Datatype	xs:string (XMLSchema)
Unit of Measure	
Format	not specified
Maximum Character Quantity	not specified

Valid Values

Valid Values	value	meaning
	-1	Missing
	-2	Did not attend
	1	most of time
	2	sometimes
	3	rarely
	4	doesnt talk at all

Field Names

Field Names	field name	preferred
	cf414	true

Usage

Related data elements	Children in Focus part of dataset
	'Takes turns talking' Speech Q 25 mth precedes this data element in dataset
	'How often follows instructions' Speech Q 25 mth precedes this data element in dataset
	'Points to body parts' Speech Q 25 mth precedes this data element in a dataset
	'How describe childs talking' Speech Q 25 mth follows this data element in a dataset
	'Hoarse/husky voice' Speech Q 25 mth follows this data element in a dataset
	'Stuck/repeat words' Speech Q 25 mth follows this data element in a dataset

Classification

Classification	term
	25 months
	Children in Focus dictionary

MRC
Data
Support
Service

search   browse   discover   understand   create   maintain   logout

Data Element Search

bother you

Submit query

Name and ID	Definition	Values

Q119 How much does this bother you
GB-OUCL-88D04DBC04BE4BC29C291D0E30FF71C1-1
add to cart

MRECIP2B

Data Type:xs:double
Units:(not applicable)

Code	Meaning
1	NOT AT ALL
2	A LITTLE
3	SOMEWHAT
4	GREATLY

Q119 How much does this bother you
GB-OUCL-D188FACAD1164548850EBBF548DEAA5D-1
add to cart

MRECIP9B

Data Type:xs:double
Units:(not applicable)

Code	Meaning
1	NOT AT ALL
2	A LITTLE
3	SOMEWHAT
4	GREATLY

Q119 How much does this bother you
GB-OUCL-0148E26EC41443CA8EA654F4246A173F-1
add to cart

MRECIP3B

Data Type:xs:double
Units:(not applicable)

Code	Meaning
1	NOT AT ALL
2	A LITTLE
3	SOMEWHAT
4	GREATLY

Q119 How much does this bother you
GB-OUCL-08E14E8AD02443D68568547F1EEC2C44-1
add to cart

MRECIP4B

Data Type:xs:double
Units:(not applicable)

Code	Meaning
1	NOT AT ALL
2	A LITTLE
3	SOMEWHAT
4	GREATLY

Q119 How much does this bother you
GB-OUCL-3434F9AFDF084289AD1D40408836DA4E-1
add to cart

MRECIP1B

Data Type:xs:double
Units:(not applicable)

Code	Meaning
1	NOT AT ALL
2	A LITTLE
3	SOMEWHAT
4	GREATLY

UNIVERSITY OF OXFORD   W3C XHTML + RDFa   W3C CSS   Powered by eXist

If Yes: How much does this bother you?

Not at all	☐ 1
A little	☐ 2
Somewhat	☐ 3
Greatly	☐ 4

(ii). Has the relationship with your partner always been characterised by mutual understanding?

Yes	☐ 1
No	☐ 2
Not applicable	☐ 3

If No: How much does this bother you?

Not at all	☐ 1
A little	☐ 2
Somewhat	☐ 3
Greatly	☐ 4

(iii). Have you always been satisfied with the balance between what you have given your partner and what you have received in return?

Yes	☐ 1

If No: How much does this b

Related data elements
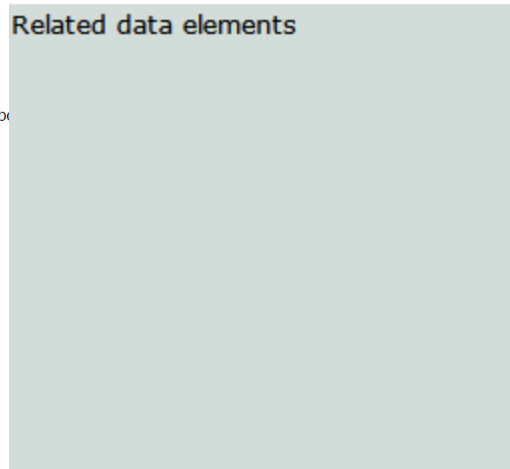
Whitehall sweep 7 questionnaire data part of dataset

Q119 Put partner ahead of own needs precedes this data element in dataset

Q119 How much does this bother you precedes this data element in dataset

Q119 Mutual understanding in partnershi precedes this data element in a dataset

Q119 Satisfied amount of give-n-take follows this data element in a dataset

Q119 How much does this bother you follows this data element in a dataset

Q119 Well respected by your children follows this data element in a dataset

MRC | Data Support Service

search   browse   discover   understand   create   maintain   logout

Data Element by Classifier

Search within classification

[   ]

(reset form)

Schemes

ALSPAC by age ▼

Classification

broader terms

Alspac by child age

selected term

134 months

related terms

8 wks gest
12 wks gest
18 wks gest
32 wks gest
4 weeks
8 weeks
4 months
6 months
8 months
12 months
15 months
18 months
21 months
24 months
25 months
30 months
31 months
33 months
37 months
38 months
42 months

Origin	Names	Definitions	Values
ALSPAC	A1a: Child's school is a place where they really like to go each day ccj100 **add to cart** A1a: Child's school is a place where they really like to go each day	(undefined)	*data type:* xs:string *units:* *enumerations:* -1 No response-10 Not completed-11 Triplet / quadruplet1 Agree2 Mostly agree3 Mostly disagree4 Disagree99 DK
ALSPAC	A1a: Frequency respondent felt things spinning/moving around, lasting less than 2 minutes during past 12 months r1000 **add to cart** A1a: Frequency respondent felt things spinning/moving around, lasting less than 2 minutes during past 12 months	(undefined)	*data type:* xs:string *units:* *enumerations:* -1 No response-10 Not completed-11 Triplet / quadruplet0 Other text answer1 > than once a week2 > than once a month3 4-12 times4 1-3 times5 Not at all9 DK
ALSPAC	A1a: Frequency respondent has felt things spinning/moving for less than 2 mins in past 12 months pp1000 **add to cart** A1a: Frequency respondent has felt things spinning/moving for less than 2 mins in past 12 months	(undefined)	*data type:* xs:string *units:* *enumerations:* -1 No response-10 Not completed-11 Triplet / quadruplet1 > Once a week2 > Once a month3 4-12 times4 1-3 times5 Not at all
ALSPAC	A1b: Child's school is a place where their teacher is fair to them ccj101 **add to cart** A1b: Child's school is a place where their teacher is fair to them	(undefined)	*data type:* xs:string *units:* *enumerations:* -1 No response-10 Not completed-11 Triplet / quadruplet1 Agree2 Mostly agree3 Mostly disagree4 Disagree99 DK
ALSPAC	A1b: Frequency respondent felt things spinning/moving around, lasting up to 20 minutes during past 12 months r1001 **add to cart** A1b: Frequency respondent felt things spinning/moving around, lasting up to 20 minutes during past 12 months	(undefined)	*data type:* xs:string *units:* *enumerations:* -1 No response-10 Not completed-11 Triplet / quadruplet0 Other text answer1 > than once a week2 > than once a month3 4-12 times4 1-3 times5 Not at all9 DK

start   prev   1 to 5 of 1394   next   last

MRC Data Support Service

search   browse   discover   understand   create   maintain   logout

Model Listing

a b c d e f g h i j k l m n o p q r s t u v w x y z

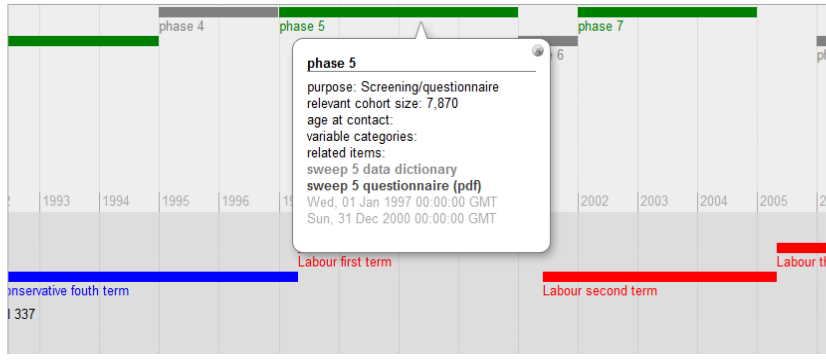| Names	Definition
F File	DATA COLLECTED FROM THE QUESTIONNAIRE 'Looking After the Baby' at 8 months
Focus 10 +	The aim of 'Children in Focus' was to examine the children in a way that cannot be done using questionnaires to their parents. The sample provides both a validation for certain aspects of the self-completion questionnaires and an answer to some important questions. These are related, for example, to the ways in which childhood diet, growth, anaemia, otitis media with effusion, visual defects, parenting skills and early cognition are related to the development of intellectual competence, speech and language as well as motor development of the child
Focus 11 +	The aim of 'Children in Focus' was to examine the children in a way that cannot be done using questionnaires to their parents. The sample provides both a validation for certain aspects of the self-completion questionnaires and an answer to some important questions. These are related, for example, to the ways in which childhood diet, growth, anaemia, otitis media with effusion, visual defects, parenting skills and early cognition are related to the development of intellectual competence, speech and language as well as motor development of the child
Focus @ 7	The aim of 'Children in Focus' was to examine the children in a way that cannot be done using questionnaires to their parents. The sample provides both a validation for certain aspects of the self-completion questionnaires and an answer to some important questions. These are related, for example, to the ways in which childhood diet, growth, anaemia, otitis media with effusion, visual defects, parenting skills and early cognition are related to the development of intellectual competence, speech and language as well as motor development of the child
Focus @ 9	The aim of 'Children in Focus' was to examine the children in a way that cannot be done using questionnaires to their parents. The sample provides both a validation for certain aspects of the self-completion questionnaires and an answer to some important questions. These are related, for example, to the ways in which childhood diet, growth, anaemia, otitis media with effusion, visual defects, parenting skills and early cognition are related to the development of intellectual competence, speech and language as well as motor development of the child

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