

Africa Centre Demographic Information System (ACDIS)

Verbal Autopsy Dataset Documentation

Change History

<u>Who</u>	<u>When</u>	<u>What</u>
Colin Newell and Kobus Herbst	18 May 2009	Original

Dataset name	VAQuestionnaire Ch5 – Neonatal deaths (i.e. at 28 days and under)
Description	<p>As in many developing and rural areas of the world, many people die outside of hospitals and clinics, and even when they do die in a hospital setting the precise cause of death is often not known to relatives. The verbal autopsy (VA) methodology aims to establish retrospectively through interviews by nurses with the family, preferably the caregiver, of the deceased the cause of death. After a review of the VA interviews, a panel of 2 or 3 physicians will assign a cause of death independently from each other. ICD 10 is used to code causes of death.</p> <p>The VA questionnaire is age specific and contains an open section called narrative, a checklist of major signs and symptoms, and a structured section eliciting more details on signs and symptoms reported.</p> <p>The timing of a VA interview with the family/caregivers of the deceased is a delicate issue, but normally it occurs between 4 months and a year after the death.</p>
Rows/Units of analysis	One row per death.of an infant <= 28 days
Unique identifier(s)	llntld
Approx. number of rows	11,900

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Chapter 5: Neonates (< 29 days)

Section 1: Neonates

1. Was the child alive (breath, cry or move) at birth?

Yes No → Go to q. 3DK

2. How old was the child (in days) at the time of death?

Days

3. Did the pregnancy end earlier than expected?

Yes No DK

4. How many months was the mother pregnant when she delivered?

 Months or Weeks DK5. What was the size of the child at birth? Smaller than usual DK Very small Normal Larger than usual

6. Did the child have any malformations at delivery?

Yes No → Go to q. 8DK

7. If yes, specify location and type of malformation

 NA 8. Did the child have fever (hot body)? Yes No → Go to q. 10DK

9. If yes, for how many days did the fever last?

 Days NA

9.a. Was the child's body cold on touch prior to death?

Yes No DK 10. Did the child suffer from spasms/convulsions? Yes No → Go to q. 13DK

11. If yes, how many days after birth did the child start having spasms /convulsions?

 Days NA

12. How long did the spasms/convulsions last?

 Days NA

13. Was the child able to breath in a normal way immediately after birth?

Yes No DK

14. Did the child start having problems breathing some days after birth?

Yes NA No → Go to q. 16DK

15. How many days after birth did the child start having problems breathing ?

 Days NA

16. Was the child able to suck in a normal way immediately after birth?

Yes No DK

17. Did the child start having problems sucking some days after birth?

Yes NA No → Go to q. 19DK

18. How many days after birth did the child start having problems sucking?

 Days NA

19. Was the child able to cry in a normal way immediately after birth?

Yes No DK

20. Did the child stop crying in a normal way some days after birth?

Yes NA No → Go to q. 22DK

21. How many days after birth did the child stop crying in a normal way?

 Days NA

22. Did the child have bruises, marks or injury on the body or head at birth?

Yes No DK

23. Did the child have a bulging fontanelle?

Yes No DK

24. Did the child become unresponsive/unconscious?

Yes No DK

Stillbirth: the child failed to cry, breath or move after birth

Low birth weight/prematurity: pregnancy ended early or pregnancy ended at <28 weeks or < 7 months or the child was very small at birth (E)

Malformation: a malformation at birth (E)

Birth Asphyxia/birth trauma: no fever (hot body) + not able to cry in a normal way after birth + not very small at birth + no prematurity (E) and (convulsions/spasms or not able to breath in a normal way after birth or not able to suck in a normal way after birth or bruises, marks or injury on body or head after birth) (S)

Neonatal tetanus: able to suck or cry at birth but stopped doing so at least 2 days after birth + convulsions/spasms during 2 weeks prior to death (E)

and/or mother no proof of tetanus vaccination of index pregnancy or born at home or birth assistant not trained (A)

Meningitis/Encephalitis: fever + bulging fontanelle + convulsions (E)

25. Did the child have a cough? Yes No DK

25. a. If yes, how long did the cough last? Days NA

26. Did the child suffer from difficult breathing due to a blocked chest not a blocked nose? Yes No DK

27. Did the child suffer from fast breathing (chest going up and down more quickly than usual)?

Yes
 No → Go to q.29
 DK

28. If yes, how long did the difficult or fast breathing last?

Days NA

29. Did the child suffer from chest indrawing (chest or stomach moving inward in a unusual manner)?

Yes No DK

30. Did the child suffer from pneumonia? Yes No DK

31. Did the child suffer from crackling in the chest (rustling sounds in the chest)?

Yes No DK

31. a. Where there any periods when the child had short periods of stopping and restarting breathing prior to death?

Yes No DK

32. Did the child suffer from frequent liquid or loose stool (more frequent, and more liquid or loose than normal)?

Yes No DK

33. Did the child suffer from diarrhoea? Yes No DK

34. If the child suffered from liquid or loose stool or from diarrhoea, for how many days was that? Days NA

35. Was there blood or mucus in the child's stool?

Yes, blood Yes, mucus No DK NA

35.a. Did the child suffer from vomiting prior to death?

Yes No DK

35.b. Did the child have any swelling of the abdomen prior to death?

Yes No DK

36. Did the waters break before labour started?

Yes

No → Go to q.38
 DK

37. If yes, how many days before labour started? Days NA

38. Did the child suffer from redness or drainage from the umbilical cord?

Yes No DK

39. Did the child suffer from a skin rash with bumps containing pus?

Yes No DK

40. Did the child have areas of skin that were red, hot or peeling prior to death?

Yes No DK

41. Did the child have yellow eyes or skin prior to death?

Yes No DK

42. Did the child have any bleeding anywhere prior to death?

Yes No DK

43. If yes, from where? specify location

NA

Lower Respiratory Tract Infection: (fever + difficult or fast breathing) or (fever + chest indrawing) or (local term for pneumonia) (E)
 and/or crackling in the chest (A)
 Diarrhoea/dysentery: frequent loose or liquid stool or local term for diarrhoea
 Bacteraemia/Septicaemia: fever (hot body) + became unresponsive/unconscious + absence of pneumonia or meningitis (E)
 and (stopped being able to suck) or (stopped being able to cry) or waters broke > 1 day before labour (S)
 and/or redness or drainage from umbilical cord or skin rash with bumps containing pus (A)

Verbal Autopsies Dataset Variable List

Variable Name	Description	Source in ACQ Verbal Autopsy database	Format/Codes/Special values	Notes/comments
IntID	Unique Id of Individual	<i>SubjectID</i>	Integer 11-145000 No blanks	Unique identifier. Use to link into ACDIS Individuals, Deaths etc datasets
LiveBirth	Was the child alive(breath, cry or move) at birth?	VAC5_S01V01	YES Yes NO No DKN _don't know NAD _not applicable RFS _refused MIS _Missing QRY _query	
AgeInDaysAtDeath	How old was the child (in days) at the time of death?	VAC5_S01V02	Integer 0-30 Null	
Abortion	Did the pregnancy end earlier than expected?	VAC5_S01V03	YES/NO etc as above	
PregnancyPeriod	How many months was the mother pregnant when she delivered?	VAC5_S01V04	Integer 0-40 Null	Nine are 10 – 40 months!!
PregnancyPeriodUnit	Unit of measure	VAC5_S01V04a	DAY Days MON Months WEE Weeks YEA Years NAD _not applicable	
ChildSize	What was the size of the child at birth?	VAC5_S01V05	LAR Larger than usual NOR Normal SMA Smaller than usual VSM Very small	
Malformations	Did the child have any malformations at delivery?	VAC5_S01V06	YES/NO etc as above	

Verbal Autopsies Dataset Variable List

Variable Name	Description	Source in ACQ Verbal Autopsy database	Format/Codes/Special values	Notes/comments
MalformationsDesc	If yes, specify location and type of malformation	VAC5_S01V07	Text string	Only five are useful. Rest are Null or N/A
Fever	Did the child have fever (hot body)?	VAC5_S01V08	YES/NO etc as above	
FeverPeriod	If yes, for how many days did the fever last?	VAC5_S01V09	Integer 0-20 Null	Less than 30 are anything except Null or 0
ColdBody	Was the child's body cold on touch prior to death?	VAC5_S01V09a	YES/NO etc as above	
Spasms	Did the child suffer from spasms/convulsions?	VAC5_S01V10	YES/NO etc as above	
SpasmsPeriod	If yes, how many days after birth did the child start having spasms/convulsions?	VAC5_S01V11	Integer 0-3 Null	Only four have values other than 0 or Null
SpasmsLasted	How long did the spasms/convulsions last?	VAC5_S01V12	Integer 0-3 Null	Only five have values other than 0 or Null
NormalBreathing	Was the child able to breath in a normal way immediately after birth?	VAC5_S01V13	YES/NO etc as above	
ProblemsBreathing	Did the child start having problems breathing some days after birth?	VAC5_S01V14	YES/NO etc as above	
ProblemsBreathingWhen	How many days after birth did the child start having problems breathing?	VAC5_S01V15	Integer 0-21 Null	Only approx 30 have values other than 0 or Null
NormalSucking	Was the child able to suck in a normal way immediately after birth?	VAC5_S01V16	YES/NO etc as above	
ProblemsSucking	Did the child start having problems sucking some days after birth?	VAC5_S01V17	YES/NO etc as above	

Verbal Autopsies Dataset Variable List

Variable Name	Description	Source in ACQ Verbal Autopsy database	Format/Codes/Special values	Notes/comments
ProblemsSuckingWhen	How many days after birth did the child start having problems sucking?	VAC5_S01V18	Integer 0-20 Null	Only approx 25 have values other than 0 or Null
NormalCrying	Was the child able to cry in a normal way immediately after birth?	VAC5_S01V19	YES/NO etc as above	
StoppedCrying	Did the child stop crying in a normal way some days after birth?	VAC5_S01V20	YES/NO etc as above	
StoppedCryingWhen	How many days after birth did the child stop crying in a normal way?	VAC5_S01V21	Integer 0-14 Null	Only nine have values other than 0 or Null
Bruises	Did the child have bruises, marks or injury on the body or head at birth?	VAC5_S01V22	YES/NO etc as above	
FontanelleNeonate	Did the child have a bulging fontanelle?	VAC5_S01V23	YES/NO etc as above	
Unresponsive	Did the child become unresponsive / unconscious?	VAC5_S01V24	YES/NO etc as above	
CoughNeonate	Did the child have cough?	VAC5_S01V25	YES/NO etc as above	
CoughNeonatePeriod	If yes, how long did the last in days?	VAC5_S01V25a	Integer 0-5 98 Don't know Null	Only six have values other than 0 or Null
DifficultBreathing	Did the child suffer from difficult breathing due to a blocked chest not a blocked nose?	VAC5_S01V26	YES/NO etc as above	
FastBreathing	Did the child suffer from fast breathing (chest going up and down more quickly than usual)?	VAC5_S01V27	YES/NO etc as above	
FastBreathingPeriod	If yes, how long did the difficult or fast breathing last in days?	VAC5_S01V28	Integer 0-30 Null	Only about 40 have values other than 0 or Null

Verbal Autopsies Dataset Variable List

Variable Name	Description	Source in ACQ Verbal Autopsy database	Format/Codes/Special values	Notes/comments
ChestIndrawing	Did the child suffer from chest indrawing (chest or stomach moving inward in an unusual manner)?	VAC5_S01V29	YES/NO etc as above	
Pneumonia	Did the child suffer from pneumonia?	VAC5_S01V30	YES/NO etc as above	
ChestCrackling	Did the child suffer from crackling in the chest (rustling sounds in the chest)?	VAC5_S01V31	YES/NO etc as above	
BreathStoppingPeriod	Where there any periods when the child had short periods of stopping and restarting breathing prior to death?	VAC5_S01V31a	YES/NO etc as above	
LiquidStool	Did the child suffer from frequent liquid or loose stool (more frequent, and more liquid or more loose than normal)?	VAC5_S01V32	YES/NO etc as above	
DiarrhoeaNeonate	Did the child suffer from diarrhoea?	VAC5_S01V33	YES/NO etc as above	
DiarrhoeaNeonatePeriod	If the child suffered from liquid or loose stool or from diarrhoea, for how many days was that?	VAC5_S01V34	Integer 0-20 Null	Only seven have values other than 0 or Null
BloodyStool	Was there blood or mucus in the child's stool?	VAC5_S01V35	YES/NO etc as above	
VomitingNeonate	Did the child suffer from vomiting prior to death?	VAC5_S01V35a	YES/NO etc as above	
SwellingNeonate	Did the child have any swelling of the abdomen prior to death?	VAC5_S01V35b	YES/NO etc as above	
WatersBroke	Did the waters break before labour started?	VAC5_S01V36	YES/NO etc as above	
WatersBrokeWhen	If yes, how many days before labour started?	VAC5_S01V37	Integer 0-7 Null	Only about 10 have values other than 0 or Null

Verbal Autopsies Dataset Variable List

Variable Name	Description	Source in ACQ Verbal Autopsy database	Format/Codes/Special values	Notes/comments
Redness	Did the child suffer from redness or drainage from the umbilical cord?	VAC5_S01V38	YES/NO etc as above	
SkinRashNeonate	Did the child suffer from a skin rash with bumps containing pus?	VAC5_S01V39	YES/NO etc as above	
PeelingSkin	Did the child have areas of skin that were red, hot or peeling prior to death?	VAC5_S01V40	YES/NO etc as above	
YellowEyesOrSkin	Did the child have yellow eyes or skin prior to death?	VAC5_S01V41	YES/NO etc as above	
Bleeding	Did the child have any bleeding anywhere prior to death?	VAC5_S01V42	YES/NO etc as above	
BleedingLocation	If yes, from where? Specify location	VAC5_S01V43	Text string	Only about 5 values are useful.

SQL

```
/*  
<Author>Colin Newell</Author>  
<Date>18 May 2009</Date>  
<Category>Dataset</Category>  
<Notes>  
Requested by: VA dataset
```

```
Request: To produce an analytical dataset from VA database (ACQ)  
</Notes>  
<ChangeHistory>  
C Newell 18 May 2009 Original coding  
</ChangeHistory>
```

Takes 6-7 minutes to run

```
drop table cntmpVAQuestionnaire_Ch5_18may09  
select * into cntmpVAQuestionnaire_Ch5_18may09 from vacVAQuestionnaire_Ch5  
*/
```

```
ALTER VIEW vacVAQuestionnaire_Ch5
```

```
AS
```

```
SELECT
```

```
DN.SubjectID AS IIntID,  
MAX(CASE Variable WHEN 'VAC5_S01V01' THEN CAST(Value AS CHAR(3)) ELSE NULL END) LiveBirth,  
MAX(CASE Variable WHEN 'VAC5_S01V02' THEN CAST(Value AS INT) ELSE NULL END) Age,  
MAX(CASE Variable WHEN 'VAC5_S01V03' THEN CAST(Value AS CHAR(3)) ELSE NULL END) Abortion,  
MAX(CASE Variable WHEN 'VAC5_S01V04' THEN CAST(Value AS INT) ELSE NULL END) PregnancyPeriod,  
MAX(CASE Variable WHEN 'VAC5_S01V04a' THEN CAST(Value AS CHAR(3)) ELSE NULL END) PregnancyPeriodUnit,  
MAX(CASE Variable WHEN 'VAC5_S01V05' THEN CAST(Value AS CHAR(3)) ELSE NULL END) ChildSize,  
MAX(CASE Variable WHEN 'VAC5_S01V06' THEN CAST(Value AS CHAR(3)) ELSE NULL END) Malformations,  
MAX(CASE Variable WHEN 'VAC5_S01V07' THEN CAST(Value AS varchar(255)) ELSE NULL END) MalformationsDesc,  
MAX(CASE Variable WHEN 'VAC5_S01V08' THEN CAST(Value AS CHAR(3)) ELSE NULL END) Fever,  
MAX(CASE Variable WHEN 'VAC5_S01V09' THEN CAST(Value AS INT) ELSE NULL END) FeverPeriod,  
MAX(CASE Variable WHEN 'VAC5_S01V09a' THEN CAST(Value AS CHAR(3)) ELSE NULL END) ColdBody,  
MAX(CASE Variable WHEN 'VAC5_S01V10' THEN CAST(Value AS CHAR(3)) ELSE NULL END) Spasms,  
MAX(CASE Variable WHEN 'VAC5_S01V11' THEN CAST(Value AS INT) ELSE NULL END) SpasmsPeriod,  
MAX(CASE Variable WHEN 'VAC5_S01V12' THEN CAST(Value AS INT) ELSE NULL END) SpasmsLasted,  
MAX(CASE Variable WHEN 'VAC5_S01V13' THEN CAST(Value AS CHAR(3)) ELSE NULL END) NormalBreathing,  
MAX(CASE Variable WHEN 'VAC5_S01V14' THEN CAST(Value AS CHAR(3)) ELSE NULL END) ProblemsBreathing,  
MAX(CASE Variable WHEN 'VAC5_S01V15' THEN CAST(Value AS INT) ELSE NULL END) ProblemsBreathingWhen,
```

```

MAX(CASE Variable WHEN 'VAC5_S01V16' THEN CAST(Value AS CHAR(3)) ELSE NULL END) NormalSucking,
MAX(CASE Variable WHEN 'VAC5_S01V17' THEN CAST(Value AS CHAR(3)) ELSE NULL END) ProblemsSucking,
MAX(CASE Variable WHEN 'VAC5_S01V18' THEN CAST(Value AS INT) ELSE NULL END) ProblemsSuckingWhen,
MAX(CASE Variable WHEN 'VAC5_S01V19' THEN CAST(Value AS CHAR(3)) ELSE NULL END) NormalCrying,
MAX(CASE Variable WHEN 'VAC5_S01V20' THEN CAST(Value AS CHAR(3)) ELSE NULL END) StoppedCrying,
MAX(CASE Variable WHEN 'VAC5_S01V21' THEN CAST(Value AS INT) ELSE NULL END) StoppedCryingWhen,
MAX(CASE Variable WHEN 'VAC5_S01V22' THEN CAST(Value AS CHAR(3)) ELSE NULL END) Bruises,
MAX(CASE Variable WHEN 'VAC5_S01V23' THEN CAST(Value AS CHAR(3)) ELSE NULL END) FontanelleNeonate,
MAX(CASE Variable WHEN 'VAC5_S01V24' THEN CAST(Value AS CHAR(3)) ELSE NULL END) Unresponsive,
MAX(CASE Variable WHEN 'VAC5_S01V25' THEN CAST(Value AS CHAR(3)) ELSE NULL END) CoughNeonate,
MAX(CASE Variable WHEN 'VAC5_S01V25a' THEN CAST(Value AS INT) ELSE NULL END) CoughNeonatePeriod,
MAX(CASE Variable WHEN 'VAC5_S01V26' THEN CAST(Value AS CHAR(3)) ELSE NULL END) DifficultBreathing,
MAX(CASE Variable WHEN 'VAC5_S01V27' THEN CAST(Value AS CHAR(3)) ELSE NULL END) FastBreathing,
MAX(CASE Variable WHEN 'VAC5_S01V28' THEN CAST(Value AS INT) ELSE NULL END) FastBreathingPeriod,
MAX(CASE Variable WHEN 'VAC5_S01V29' THEN CAST(Value AS CHAR(3)) ELSE NULL END) ChestIndrawing,
MAX(CASE Variable WHEN 'VAC5_S01V30' THEN CAST(Value AS CHAR(3)) ELSE NULL END) Pneumonia,
MAX(CASE Variable WHEN 'VAC5_S01V31' THEN CAST(Value AS CHAR(3)) ELSE NULL END) ChestCrackling,
MAX(CASE Variable WHEN 'VAC5_S01V31a' THEN CAST(Value AS CHAR(3)) ELSE NULL END) BreathStoppingPeriod,
MAX(CASE Variable WHEN 'VAC5_S01V32' THEN CAST(Value AS CHAR(3)) ELSE NULL END) LiquidStool,
MAX(CASE Variable WHEN 'VAC5_S01V33' THEN CAST(Value AS CHAR(3)) ELSE NULL END) DiarrhoeaNeonate,
MAX(CASE Variable WHEN 'VAC5_S01V34' THEN CAST(Value AS INT) ELSE NULL END) DiarrhoeaNeonatePeriod,
MAX(CASE Variable WHEN 'VAC5_S01V35' THEN CAST(Value AS CHAR(3)) ELSE NULL END) BloodyStool,
MAX(CASE Variable WHEN 'VAC5_S01V35a' THEN CAST(Value AS CHAR(3)) ELSE NULL END) VomitingNeonate,
MAX(CASE Variable WHEN 'VAC5_S01V35b' THEN CAST(Value AS CHAR(3)) ELSE NULL END) SwellingNeonate,
MAX(CASE Variable WHEN 'VAC5_S01V36' THEN CAST(Value AS CHAR(3)) ELSE NULL END) WatersBroke,
MAX(CASE Variable WHEN 'VAC5_S01V37' THEN CAST(Value AS INT) ELSE NULL END) WatersBrokeWhen,
MAX(CASE Variable WHEN 'VAC5_S01V38' THEN CAST(Value AS CHAR(3)) ELSE NULL END) Redness,
MAX(CASE Variable WHEN 'VAC5_S01V39' THEN CAST(Value AS CHAR(3)) ELSE NULL END) SkinRashNeonate,
MAX(CASE Variable WHEN 'VAC5_S01V40' THEN CAST(Value AS CHAR(3)) ELSE NULL END) PeelingSkin,
MAX(CASE Variable WHEN 'VAC5_S01V41' THEN CAST(Value AS CHAR(3)) ELSE NULL END) YellowEyesOrSkin,
MAX(CASE Variable WHEN 'VAC5_S01V42' THEN CAST(Value AS CHAR(3)) ELSE NULL END) Bleeding,
MAX(CASE Variable WHEN 'VAC5_S01V43' THEN CAST(Value AS varchar(255)) ELSE NULL END) BleedingLocation
FROM dbo.vacDefaultVAQ DN
JOIN dbo.udfQValues('VAQ') VN ON (DN.QSessionID = VN.QSessionID)
GROUP BY DN.SubjectID, DN.QSessionID

```