

## 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

<b>Dataset name</b>	<b>VAQuestionnaire Ch6 – Deaths of children &gt; 28 days and &lt; 5 years</b>
<b>Description</b>	<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>
<b>Rows/Units of analysis</b>	One row per death.
<b>Unique identifier(s)</b>	llntld
<b>Approx. number of rows</b>	11,900

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## Section 1

1.a. Did the child suffer from repeated episodes of illness before death?

Yes  No  DK

2. Did the child have any malformation at delivery?

Yes  No  DK

3. If yes, specify location and type of malformation

NA

4. Was the child very small at birth? Yes  No  DK

5. Did the child suffer from a severe loss of weight (ukucinpha enzimbini)?

Yes  No  DK

6. Was the child very thin, thin arms and legs (amathambo), and loose skin over the arms (zishwabene zingalo)?

Yes  No  DK

7. Did the child suffer from swelling of the body or parts of the body?

Yes  No  DK

8. Did the child suffer from pitting oedema (ukuvuvuka) in the feet or legs?

Yes  No  DK

9. Did the child suffer from a peeling skin (ukuxebuka)?

Yes  No  DK

10. Did the child have brittle, sparse hair? Yes  No  DK

11. Did the child suffer from malnutrition (indlala)?

Yes  No  DK

11.a. Did s/he have swelling in the neck, close to the ear, in the groin or armpit?

Yes, neck  Yes, armpit  No

Yes, groin  Yes, near the ear  DK

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

Yes  No  DK

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

14. If liquid or loose stool or diarrhoea, how long did it last?

Days  Weeks  Months  NA

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

Yes, blood  Yes, mucus  No  DK  NA

15.a. Did the child have sunken eyes? Yes  No  DK

16. Did the child have fever (hot body)? Yes  No  DK

17. If fever, how long did the fever last?

Days  Weeks  Months  NA

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

18. a. Was the cough severe? Yes  No  DK  NA

19. If cough, how long did the cough last?  Days  Weeks  Months  NA

19.a. Was there wheezing prior to death? Yes  No  DK

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

21. Did the child suffer from fast breathing (chest going up and down more quickly than usual)? Yes  No  DK

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

Days  Weeks  Months  NA

22. Did the child suffer from chest indrawing (chest or stomach moving inward in a unusual manner)? Yes  No  DK

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

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

Yes  No  DK

25. Did the child have a bulging fontanelle? Yes  No  DK

26. Did the child have a stiff neck? Yes  No  DK

27. Did the child suffer from spasms/convulsions?

Yes  No  DK

28. Did the child become unresponsive/unconscious?

Yes  No  DK

29. Did the child stop being able to grasp? Yes  No  DK

30. Did the child stop being able to respond to a voice?

Yes  No  DK

31. Did the child stop being able to follow movements with his/her eyes?

Yes  No  DK

32. Did the child fail to grow? Yes  No  DK

32.a. Did the child stop doing things s/he was previously able to do e.g. sitting, walking, talking, playing (loss of milestones) prior to death?

Yes  No  DK

33. Did the child have severe oral thrush? Yes  No  DK

34. Did the child suffer repeatedly from chest infections in the last year?

Yes  No  DK

35. Was the child treated for tuberculosis? Yes  No  DK

36. Did the child suffer from a brain infection in the last year?

Yes  No  DK

37. Did the child have a rash? Yes  No  DK

38. Did the rash have blisters containing clear fluid?

Yes  No  DK  NA

39. \*Was the child known to suffer from epilepsy? Yes  No  DK

40. Did the child die during or shortly after an epilepsy attack?

Yes  No  DK  NA

42. \*Did the child die during an asthma attack? Yes  No  DK

Malformation: the child had a malformation at birth (E)

Malnutrition: local term for malnutrition or the child was very thin with loose skin or the child suffered from swelling of the body or parts of the body (E) and/or child had pitting oedema of feet/legs or child had peeling skin or brittle sparse hair or severe weight loss (A)

Diarrhoea/dysentery: frequent loose or liquid stool or local term for diarrhoea (E)

Lower Respiratory Tract Infection: (difficult or fast breathing + fever) or (local term for pneumonia) (E) and/or chest indrawing or cough or crackling in the chest (A)

Meningitis/Encephalitis: fever + (bulging fontanelle or stiff neck) (E) and/or convulsions/spasms (A)

Cerebral malaria: fever + loss of consciousness + convulsions + no meningitis (E)

Bacteraemia/septicaemia: fever + no meningitis + no pneumonia + no malaria (E)

and (stopped being able to grasp or stopped being able to respond to a voice or stopped being able to follow movements with his/her eyes) (S)

AIDS: malnutrition + severe oral thrush + (repeated chest infection in the last year or tuberculosis) (E)

and (chronic diarrhoea (>2 weeks) or treatment for tuberculosis or meningitis/encephalitis in the last year or failure to thrive or severe weight loss (S)

Epilepsy: known epileptic + dying during or shortly after an epileptic attack + no other infection at the time of death (E)

Tuberculosis: medically diagnosed with tuberculosis.

## 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
Episodes	Did the child suffer from repeated episodes of illnesses before death?	VAC6_S01V01	YES Yes NO No DKN _don't know NAD _not applicable RFS _refused MIS _Missing QRY _query	
Malformation	Did the child have any malformation at delivery?	VAC6_S01V02	YES/NO etc as above	
MalformationType	If yes, specify location and type of malformation	VAC6_S01V03	Text string	About 30 useful values
Small	Was the child very small at birth?	VAC6_S01V04	YES/NO etc as above	
WeightLoss	Did the child suffer from a severe loss of weight (ukuncipha emzimbeni)?	VAC6_S01V05	YES/NO etc as above	
SmallBody	Was the child very thin, thin arms and legs (amathambo), and loose skin over the arms (zishwabene izingalo)?	VAC6_S01V06	YES/NO etc as above	
SwellingBody	Did the child suffer from swelling of the body or swelling parts of the body?	VAC6_S01V07	YES/NO etc as above	
Oedema	Did the child suffer from pitting oedema (ukuvuvuka) in the feet or legs?	VAC6_S01V08	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
SkinPeeling	Did the child suffer from a peeling skin (ukuxebuka)?	VAC6_S01V09	YES/NO etc as above	
Hair	Did the child have brittle, sparse hair?	VAC6_S01V10	YES/NO etc as above	
Malnutrition	Did the child suffer from malnutrition (indlala)?	VAC6_S01V11	YES/NO etc as above	
NeckEtcSwelling	Did s/he have swelling in the neck, close to the ear, in the groin or armpit?	VAC6_S01V11a	ARM Yes, armpit EAR Yes, near the ear GRO Yes, groin NEC Yes, neck NO No QRY _query RFS _refused DFT _default DKN _don't know MIS _missing NAD _not applicable	
Stool	Did the child suffer from frequent liquid or loose stool (more frequent and more liquid or loose than normal)?	VAC6_S01V12	YES/NO etc as above	
DiarrhoeaChild	Did the child suffer from diarrhoea?	VAC6_S01V13	YES/NO etc as above	
StoolPeriod	If liquid or loose stool or from diarrhoea, how long did it last?	VAC6_S01V14	Integer 0-60 98 Don't know 99 Missing Null	Unit is in next variable
StoolPeriodUnit	Unit of measure	VAC6_S01V14a	DAY Days MON Months WEE Weeks YEA Years NAD _not applicable	

## Verbal Autopsies Dataset Variable List

Variable Name	Description	Source in ACQ Verbal Autopsy database	Format/Codes/Special values	Notes/comments
Mucus	Was there blood or mucus in the child's stool?	VAC6_S01V15	BLO Yes, blood DKN _don't know MUC Yes, mucus NAD _not applicable NOT No	
SunkenEyesChild	Did the child have sunken eyes?	VAC6_S01V15a	YES/NO etc as above	
FeverChild	Did the child have fever (hot body)?	VAC6_S01V16	YES/NO etc as above	
FeverChildPeriod	If fever, how long did the fever last?	VAC6_S01V17	Integer 0-60 98 Don't know 99 Missing Null	Unit is in next variable
FeverChildPeriodUnit	Unit of measure	VAC6_S01V17a	DAY/MON/WEE/YEA units as above	
CoughChild	Did the child have cough?	VAC6_S01V18	YES/NO etc as above	
SevereCoughChild	Was the cough severe?	VAC6_S01V18a	YES/NO etc as above	
CoughChildPeriod	If cough, how long did the cough last?	VAC6_S01V19	Integer 0-60 98 Don't know 99 Missing Null A couple of high values – 120, 150	Unit is in next variable
CoughChildPeriodUnit	Unit of measure	VAC6_S01V19a	DAY/MON/WEE/YEA units as above	
WheezingChild	Was there wheezing prior to death?	VAC6_S01V19b	YES/NO etc as above	
BlockedChest	Did the child suffer from difficult breathing due to a blocked chest not a blocked nose?	VAC6_S01V20	YES/NO etc as above	
FastBreath	Did the child suffer from fast breathing (chest going up and down more quickly than usual)?	VAC6_S01V21	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
FastBreathDur	If yes, how did the difficult or fast breathing last?	VAC6_S01V21a		
FastBreathDurUnit	Unit of measure	VAC6_S01V21c	DAY/MON/WEE/YEA units as above	
Indrawing	Did the child suffer from chest indrawing (chest or stomach moving inward in an unusual manner)?	VAC6_S01V22		
PneumoniaChild	Did the child suffer from pneumonia?	VAC6_S01V23	YES/NO etc as above	
Crackling	Did the child suffer from crackling in the chest (rustling sounds in the chest)?	VAC6_S01V24	YES/NO etc as above	
Fontanelle	Did the child have a bulging fontanelle?	VAC6_S01V25	YES/NO etc as above	
StiffNeck	Did the child have a stiff neck?	VAC6_S01V26	YES/NO etc as above	
Spasm	Did the child suffer from spasms/convulsions?	VAC6_S01V27	YES/NO etc as above	
Unconscious	Did the child become unresponsive/unconscious?	VAC6_S01V28	YES/NO etc as above	
Grasp	Did the child stop being able to grasp?	VAC6_S01V29	YES/NO etc as above	
VoiceResp	Did the child stop being able to respond to a voice?	VAC6_S01V30	YES/NO etc as above	
EyeMoves	Did the child stop being able to follow movements with his/her eyes?	VAC6_S01V31	YES/NO etc as above	
Growth	Did the child fail to grow?	VAC6_S01V32	YES/NO etc as above	
Unable	Did the child stop doing things s/he was previously able to do e.g. sitting, walking, talking, playing prior to death?	VAC6_S01V32a	YES/NO etc as above	
OralThrush	Did the child have severe oral thrush?	VAC6_S01V33	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
ChestInfections	Did the child suffer repeatedly from chest infections in the last year?	VAC6_S01V34	YES/NO etc as above	
Tb	Was the child treated for tuberculosis?	VAC6_S01V35	YES/NO etc as above	
BrainInfection	Did the child suffer from a brain infection in the last year?	VAC6_S01V36	YES/NO etc as above	
Rash	Did the child have a rash?	VAC6_S01V37	YES/NO etc as above	
FadingRash	Did the rash have blisters containing clear fluid?	VAC6_S01V38	YES/NO etc as above	
Epilepsy	Was the child known to suffer from epilepsy?	VAC6_S01V39	YES/NO etc as above	
DiedAfterEpilepticAttack	Did the child die during or shortly after an epilepsy attack?	VAC6_S01V40	YES/NO etc as above	
AsthmaChild	Did the child die during an asthma attack?	VAC6_S01V41	YES/NO etc as above	

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_Ch6_18may09  
select * into cntmpVAQuestionnaire_Ch6_18may09 from vacVAQuestionnaire_Ch6  
*/
```

```
CREATE VIEW vacVAQuestionnaire_Ch6
```

```
AS
```

```
SELECT
```

```
DN.SubjectID AS IIntID,  
MAX(CASE Variable WHEN 'VAC6_S01V01' THEN CAST(Value AS CHAR(3)) ELSE NULL END) Episodes,  
MAX(CASE Variable WHEN 'VAC6_S01V02' THEN CAST(Value AS CHAR(3)) ELSE NULL END) Malformation,  
MAX(CASE Variable WHEN 'VAC6_S01V03' THEN CAST(Value AS varchar(255)) ELSE NULL END) MalformationType,  
MAX(CASE Variable WHEN 'VAC6_S01V04' THEN CAST(Value AS CHAR(3)) ELSE NULL END) Small,  
MAX(CASE Variable WHEN 'VAC6_S01V05' THEN CAST(Value AS CHAR(3)) ELSE NULL END) WeightLoss,  
MAX(CASE Variable WHEN 'VAC6_S01V06' THEN CAST(Value AS CHAR(3)) ELSE NULL END) SmallBody,  
MAX(CASE Variable WHEN 'VAC6_S01V07' THEN CAST(Value AS CHAR(3)) ELSE NULL END) SwellingBody,  
MAX(CASE Variable WHEN 'VAC6_S01V08' THEN CAST(Value AS CHAR(3)) ELSE NULL END) Oedema,  
MAX(CASE Variable WHEN 'VAC6_S01V09' THEN CAST(Value AS CHAR(3)) ELSE NULL END) SkinPeeling,  
MAX(CASE Variable WHEN 'VAC6_S01V10' THEN CAST(Value AS CHAR(3)) ELSE NULL END) Hair,  
MAX(CASE Variable WHEN 'VAC6_S01V11' THEN CAST(Value AS CHAR(3)) ELSE NULL END) Malnutrition,  
MAX(CASE Variable WHEN 'VAC6_S01V11a' THEN CAST(Value AS CHAR(3)) ELSE NULL END) NeckEtcSwelling,  
MAX(CASE Variable WHEN 'VAC6_S01V12' THEN CAST(Value AS CHAR(3)) ELSE NULL END) Stool,  
MAX(CASE Variable WHEN 'VAC6_S01V13' THEN CAST(Value AS CHAR(3)) ELSE NULL END) DiarrhoeaChild,  
MAX(CASE Variable WHEN 'VAC6_S01V14' THEN CAST(Value AS INT) ELSE NULL END) StoolPeriod,  
MAX(CASE Variable WHEN 'VAC6_S01V14a' THEN CAST(Value AS CHAR(3)) ELSE NULL END) StoolPeriodUnit,  
MAX(CASE Variable WHEN 'VAC6_S01V15' THEN CAST(Value AS CHAR(3)) ELSE NULL END) Mucus,
```

```

MAX(CASE Variable WHEN 'VAC6_S01V15a' THEN CAST(Value AS CHAR(3)) ELSE NULL END) SunkenEyesChild,
MAX(CASE Variable WHEN 'VAC6_S01V16' THEN CAST(Value AS CHAR(3)) ELSE NULL END) FeverChild,
MAX(CASE Variable WHEN 'VAC6_S01V17' THEN CAST(Value AS INT) ELSE NULL END) FeverChildPeriod,
MAX(CASE Variable WHEN 'VAC6_S01V17a' THEN CAST(Value AS CHAR(3)) ELSE NULL END) FeverChildPeriodUnit,
MAX(CASE Variable WHEN 'VAC6_S01V18' THEN CAST(Value AS CHAR(3)) ELSE NULL END) CoughChild,
MAX(CASE Variable WHEN 'VAC6_S01V18a' THEN CAST(Value AS CHAR(3)) ELSE NULL END) SevereCoughChild,
MAX(CASE Variable WHEN 'VAC6_S01V19' THEN CAST(Value AS INT) ELSE NULL END) CoughChildPeriod,
MAX(CASE Variable WHEN 'VAC6_S01V19a' THEN CAST(Value AS CHAR(3)) ELSE NULL END) CoughChildPeriodUnit,
MAX(CASE Variable WHEN 'VAC6_S01V19b' THEN CAST(Value AS CHAR(3)) ELSE NULL END) WheezingChild,
MAX(CASE Variable WHEN 'VAC6_S01V20' THEN CAST(Value AS CHAR(3)) ELSE NULL END) BlockedChest,
MAX(CASE Variable WHEN 'VAC6_S01V21' THEN CAST(Value AS CHAR(3)) ELSE NULL END) FastBreath,
MAX(CASE Variable WHEN 'VAC6_S01V21a' THEN CAST(Value AS INT) ELSE NULL END) FastBreathDur,
MAX(CASE Variable WHEN 'VAC6_S01V21c' THEN CAST(Value AS CHAR(3)) ELSE NULL END) FastBreathDurUnit,
MAX(CASE Variable WHEN 'VAC6_S01V22' THEN CAST(Value AS CHAR(3)) ELSE NULL END) Indrawing,
MAX(CASE Variable WHEN 'VAC6_S01V23' THEN CAST(Value AS CHAR(3)) ELSE NULL END) PneumoniaChild,
MAX(CASE Variable WHEN 'VAC6_S01V24' THEN CAST(Value AS CHAR(3)) ELSE NULL END) Crackling,
MAX(CASE Variable WHEN 'VAC6_S01V25' THEN CAST(Value AS CHAR(3)) ELSE NULL END) Fontanelle,
MAX(CASE Variable WHEN 'VAC6_S01V26' THEN CAST(Value AS CHAR(3)) ELSE NULL END) StiffNeck,
MAX(CASE Variable WHEN 'VAC6_S01V27' THEN CAST(Value AS CHAR(3)) ELSE NULL END) Spasm,
MAX(CASE Variable WHEN 'VAC6_S01V28' THEN CAST(Value AS CHAR(3)) ELSE NULL END) Unconscious,
MAX(CASE Variable WHEN 'VAC6_S01V29' THEN CAST(Value AS CHAR(3)) ELSE NULL END) Grasp,
MAX(CASE Variable WHEN 'VAC6_S01V30' THEN CAST(Value AS CHAR(3)) ELSE NULL END) VoiceResp,
MAX(CASE Variable WHEN 'VAC6_S01V31' THEN CAST(Value AS CHAR(3)) ELSE NULL END) EyeMoves,
MAX(CASE Variable WHEN 'VAC6_S01V32' THEN CAST(Value AS CHAR(3)) ELSE NULL END) Growth,
MAX(CASE Variable WHEN 'VAC6_S01V32a' THEN CAST(Value AS CHAR(3)) ELSE NULL END) Unable,
MAX(CASE Variable WHEN 'VAC6_S01V33' THEN CAST(Value AS CHAR(3)) ELSE NULL END) OralThrush,
MAX(CASE Variable WHEN 'VAC6_S01V34' THEN CAST(Value AS CHAR(3)) ELSE NULL END) ChestInfections,
MAX(CASE Variable WHEN 'VAC6_S01V35' THEN CAST(Value AS CHAR(3)) ELSE NULL END) Tb,
MAX(CASE Variable WHEN 'VAC6_S01V36' THEN CAST(Value AS CHAR(3)) ELSE NULL END) BrainInfection,
MAX(CASE Variable WHEN 'VAC6_S01V37' THEN CAST(Value AS CHAR(3)) ELSE NULL END) Rash,
MAX(CASE Variable WHEN 'VAC6_S01V38' THEN CAST(Value AS CHAR(3)) ELSE NULL END) FadingRash,
MAX(CASE Variable WHEN 'VAC6_S01V39' THEN CAST(Value AS CHAR(3)) ELSE NULL END) EpilepsyChild,
MAX(CASE Variable WHEN 'VAC6_S01V40' THEN CAST(Value AS CHAR(3)) ELSE NULL END) DiedAfterEpilepticAttack,
MAX(CASE Variable WHEN 'VAC6_S01V41' THEN CAST(Value AS CHAR(3)) ELSE NULL END) AsthmaChild
FROM dbo.vacDefaultVAQ DN
JOIN dbo.udfQValues('VAQ') VN ON (DN.QSessionID = VN.QSessionID)
GROUP BY DN.SubjectID, DN.QSessionID

```