

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	13 May 2009	Original

Dataset name	VAQuestionnaire Ch1 - Identification
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.
Unique identifier(s)	llntld
Approx. number of rows	11,900

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Section 1: Identification and circumstances of death.

Temp ID/DSID

1. Surname of deceased	<input type="text"/>	12. Do you know the cause of his/her death? Yes <input type="checkbox"/>
2. First Name(s)	<input type="text"/>	No <input type="checkbox"/> → Go to q.15
3. Bounded structure ID	<input type="text"/>	13. What was the cause of death according to you?
4. Date of Birth	<input type="text"/> Y Y Y Y M M D D	<input type="text"/> NA <input type="checkbox"/>
5. Date of Death	<input type="text"/> Y Y Y Y M M D D	14. Who gave you information about the cause of death?
6. Place of death	home <input type="checkbox"/> hospital <input type="checkbox"/> On the way to hospital or clinic <input type="checkbox"/>	Nobody <input type="checkbox"/> Nurse <input type="checkbox"/> Private GP <input type="checkbox"/> NA <input type="checkbox"/>
	clinic <input type="checkbox"/> other <input type="checkbox"/> Waiting for care in OPD or GP surgery <input type="checkbox"/>	Family members <input type="checkbox"/> Doctor in hospital <input type="checkbox"/> Media <input type="checkbox"/>
7. Age	<input type="text"/> Hours <input type="checkbox"/> Days <input type="checkbox"/> Months <input type="checkbox"/> Years <input type="checkbox"/>	Neighbours <input type="checkbox"/> Traditional Healer <input type="checkbox"/> Deceased <input type="checkbox"/>
8. Sex: Female <input type="checkbox"/>		15. Was s/he in hospital or clinic in the last year before s/he died? Yes <input type="checkbox"/>
Male <input type="checkbox"/>		No <input type="checkbox"/> → Go to q.17
9. Occupation of deceased	<input type="text"/>	16. If s/he was in Hlabisa hospital is there any document from the hospital that you could show me?
10. Years of formal education	<input type="text"/>	16.a Date of admission <input type="text"/> Y Y Y Y M M D D
11. For how long was s/he ill before s/he died?	<input type="text"/> Days <input type="checkbox"/> Months <input type="checkbox"/> Years <input type="checkbox"/>	16.b OPD No. <input type="text"/> / <input type="text"/>
		16.c Reg No. <input type="text"/>
		17. Was s/he a resident or non-resident member? Resident <input type="checkbox"/> Non-resident <input type="checkbox"/>
		18. Did s/he die due to a direct maternal death? Yes <input type="checkbox"/> → Go to Ch.4 No <input type="checkbox"/>
		19. Did s/he die due to an injury, accident, suicide or tetanos? Yes <input type="checkbox"/> → Go to Ch.2 No <input type="checkbox"/>

Section 2: Personal and family disease history

1. Did s/he ever have any of the following illnesses or habits?		7. Did s/he had any major operation while still alive? Yes <input type="checkbox"/>
Hypertension <input type="checkbox"/> HIV/AIDS <input type="checkbox"/> Alcohol abuse <input type="checkbox"/> None <input type="checkbox"/>		No <input type="checkbox"/> → Go to q.10
Diabetes <input type="checkbox"/> Epilepsy <input type="checkbox"/> Smoker <input type="checkbox"/>		8. If yes, in which year was that? <input type="text"/> Y Y Y Y NA <input type="checkbox"/>
Tuberculosis (TB) <input type="checkbox"/> Asthma <input type="checkbox"/> Paralysis <input type="checkbox"/>		9. If yes, specify location or type of surgery
2. Did s/he take any medicine on a regular basis? Yes <input type="checkbox"/>		NA <input type="text"/>
No <input type="checkbox"/> → Go to q.4		10. Is/was there anybody else in the family who is/was very ill or who died in the last 2 years?
DK <input type="checkbox"/>		was very ill <input type="checkbox"/> died <input type="checkbox"/>
3. Which medicine?	<input type="text"/> NA <input type="checkbox"/>	is very ill <input type="checkbox"/> No <input type="checkbox"/> → Go to next chapter
<input type="text"/> NA <input type="checkbox"/>		11. If so, what does/did this the family member suffer from? NA <input type="checkbox"/>
4. Was s/he diagnosed in hospital with any of the following diseases prior to death?		Tuberculosis (TB) <input type="checkbox"/>
Cancer <input type="checkbox"/> Meningitis <input type="checkbox"/> Liver disease <input type="checkbox"/> Stroke <input type="checkbox"/>		HIV/AIDS <input type="checkbox"/>
Pleuritis <input type="checkbox"/> Pneumonia <input type="checkbox"/> Renal disease <input type="checkbox"/> Malaria <input type="checkbox"/>		Other <input type="checkbox"/>
HIV <input type="checkbox"/> Tuberculosis (TB) <input type="checkbox"/> Cardiac disease <input type="checkbox"/> None <input type="checkbox"/>		12. If other, specify <input type="text"/> NA <input type="checkbox"/>
Other <input type="checkbox"/>		13. How is/was that person(s) related to the deceased?
5. If yes, when was that? NA <input type="checkbox"/>		<input type="text"/> NA <input type="checkbox"/>
6. If other, specify NA <input type="checkbox"/>	<input type="text"/>	
<input type="text"/> Y Y Y Y M M D D		

Section 3: Places or persons for care

1. Where did the deceased go for care during the illness prior to death in temporal order

<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>

Section 4: Respondent1. Age of the respondent in years years2. Sex of the respondent Female
Male

3. What was the relationship between the informant and the deceased?

Spouse Grandchild Grandparent Uncle
 Child Parent Sibling Other relative
 Child-in-law Parent-in-law Aunt None relative

4. How many years of education did the respondent complete?

 years

5. What was the highest level of education of the respondent?

Primary Tertiary
 Secondary None

6. If the deceased was a child and the mother was not the informant, is the child's mother still alive?

Yes No DK NA **Section 5: Death certificate**

1. Was a death certificate issued?

Yes
 No → Go to next chapter
 DK

2. Was the VA nurse able to see the death certificate?

Yes No DK

3. Record immediate cause of death appearing in the death certificate?

 NA

4. Record first underlying cause of death appearing in the death certificate?

 NA

5. Record second underlying cause of death appearing in the death certificate?

 NA

6. Record third cause of death appearing in the death certificate?

 NA

7. Record the contributing cause of death appearing in the death certificate?

 NA

Verbal Autopsies Dataset Variable List

Variable Name	Description	Source in ACQ Verbal Autopsy database	Format/Codes/Special values	Notes/comments
IIIntID	Unique Id of Individual	<i>SubjectID</i>	Integer 11-145000 No blanks	Unique identifier. Use to link into ACDIS Individuals, Deaths etc datasets
Occupation	Occupation of deceased	<i>VA_C1S01V09</i>	Text string e.g. Unemployed Pensioner Child General worker Domestic worker General labour	
EducationYears	Years of formal education	<i>VA_C1S01V10</i>	Integer 0-20 100 or so Nulls	
IIIDuration	For how long was s/he ill before s/he died?	<i>VA_C1S01V11</i>	0-74 (Units in next variable) A few 98/99 implying Don't know and missing	
IIIDurationUnit	Illness duration unit	<i>VA_C1S01V11b</i>	HRS Hours DAY Days MON Months YRS Years DFT _default DKN _don't know MIS _missing NAD _not applicable	

Verbal Autopsies Dataset Variable List

Variable Name	Description	Source in ACQ Verbal Autopsy database	Format/Codes/Special values	Notes/comments
KnownCause	Do you know the cause of his/her death?	VA_C1S01V12	YES Yes NO No DKN _don't know NAD _not applicable MIS _Missing QRY _query RFS _refused	83% say yes
Cause	What was the cause of death according to you?	VA_C1S01V13	Text string	About 500 blank, some in isiZulu most in english
Informant	Who gave you information about the cause of death?	VA_C1S01V14	DEC Deceased FAM Family members HDR Doctor in hospital MED Media NEI Neighbours NOB Nobody NUR Nurse PGP Private GP TRH Traditional healer QRY _query RFS _refused NAD _not applicable DFT _default DKN _don't know MIS _missing	
HospAdmission	Was s/he in hospital or clinic in the last year before s/he died?	VA_C1S01V15	YES Yes NO No DKN _don't know NAD _not applicable RFS _refused MIS _Missing QRY _query	

Verbal Autopsies Dataset Variable List

Variable Name	Description	Source in ACQ Verbal Autopsy database	Format/Codes/Special values	Notes/comments
HlabisaAdmDate	Hlabisa hospital date of admission	VA_C1S01V16a	Date 1998 – 2009 1795-01-01 Default 1798-01-01 Don't know	The 5,000-odd Defaults presumably indicate they did not go to Hlabisa.
Residence	Was s/he a resident or non-resident member?	VA_C1S01V17	RES Resident NRE Non-resident DFT _default DKN _don't know MIS _missing NAD _not applicable RFS _refused Null	
MaternalDeath	Did she die due to a direct maternal death?	VA_C1S01V18	YES/NO etc as above	Only 85 say Yes
Trauma	Did s/he die due to an injury, accident, suicide or tetanus?	VA_C1S01V19	YES/NO etc as above	679 say yes
EverHypertension	Did s/he ever have... Hypertension?	VA_C1S02V01a	YES/NO etc as above	
EverHIV_AIDS	HIV/AIDS	VA_C1S02V01b	YES/NO etc as above	
EverAlcoholAbuse	Alcohol abuse	VA_C1S02V01c	YES/NO etc as above	
EverNone	None	VA_C1S02V01d	YES/NO etc as above	
EverDiabetes	Diabetes	VA_C1S02V01e	YES/NO etc as above	
EverEpilepsy	Epilepsy	VA_C1S02V01f	YES/NO etc as above	
EverSmoker	Smoker	VA_C1S02V01g	YES/NO etc as above	
EverTuberculosis	Tuberculosis (TB)	VA_C1S02V01h	YES/NO etc as above	
EverAsthma	Asthma	VA_C1S02V01i	YES/NO etc as above	
EverParalysis	Paralysis	VA_C1S02V01j	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
Medication	Did s/he take any medicine on a regular basis?	VA_C1S02V02	YES/NO etc as above	
WhichMedA	Which medicine?	VA_C1S02V03a	Text string	
WhichMedB	Which medicine?	VA_C1S02V03b	Text string	
DiagCancer	Cancer	VA_C1S02V04a	YES/NO etc as above	243 say yes
DiagMeningitis	Meningitis	VA_C1S02V04b	YES/NO etc as above	
DiagLiver disease	Liver disease	VA_C1S02V04c	YES/NO etc as above	
DiagStroke	Stroke	VA_C1S02V04d	YES/NO etc as above	
DiagPleuritis	Pleuritis	VA_C1S02V04e	YES/NO etc as above	
DiagPneumonia	Pneumonia	VA_C1S02V04f	YES/NO etc as above	
DiagRenalDisease	Renal disease	VA_C1S02V04g	YES/NO etc as above	
DiagMalaria	Malaria	VA_C1S02V04h	YES/NO etc as above	
DiagHIV	HIV	VA_C1S02V04i	YES/NO etc as above	
DiagTuberculosis	Tuberculosis (TB)	VA_C1S02V04j	YES/NO etc as above	
DiagCardiacDisease	Cardiac disease	VA_C1S02V04k	YES/NO etc as above	
DiagNone	None	VA_C1S02V04l	YES/NO etc as above	
DiagOther	Other	VA_C1S02V04m	YES/NO etc as above	
WhenDiagnosed	If yes, when was that?	VA_C1S02V05	Date 1967 – present 1795 Default 1798 Don;t know Null	
OtherDxSpecified	If other, specify	VA_C1S02V06	Text string	
MajorOperation	Did s/he had any major operation while still alive?	VA_C1S02V07	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
OperationYear	If yes, in which year was that?	VA_C1S02V08	Text string	Lots of invalid values/dirty data
OperationSpecified	If yes, specify location or type of surgery	VA_C1S02V09	Text string	
FamilyIllDied	Is/was there anybody else in the family who is/was very ill or who died in the last 2 years?	VA_C1S02V10	DIE Died IID Is very ill and died IVI Is very ill IWI Is and was very ill NO No WID Was very ill and died WII Was and is very ill WVI Was very ill MIS _missing NAD _not applicable QRY _query RFS _refused DKN _don't know DFT _default	
FamilyDx	If so, what does/did the family member suffer from?	VA_C1S02V11	DFT _default DKN _don't know HIV HIV/AIDS MIS _missing NAD _not applicable OTH Other QRY _query RFS _refused TB Tuberculosis	
FamilyDXSpecified	If other, specify	VA_C1S02V12	Text string	
FamilyRelation	How is/was that person/s related to the deceased?	VA_C1S02V13	Text string	

Verbal Autopsies Dataset Variable List

Variable Name	Description	Source in ACQ Verbal Autopsy database	Format/Codes/Special values	Notes/comments
Care_a	Where did the deceased go for care during the illness prior to death in temporal order 1-6 1	VA_C1S03V01a	Text string	Mainly names/locations of doctors
Care_b	2	VA_C1S03V01b	Text string	Ditto
Care_c	3	VA_C1S03V01c	Text string	Ditto
Care_d	4	VA_C1S03V01d	Text string	Ditto
Care_e	5	VA_C1S03V01e	Text string	Ditto
Care_f	6	VA_C1S03V01f	Text string	Ditto
Care_g	7	VA_C1S03V01g	Text string	Ditto
Care_h	8	VA_C1S03V01h	Text string	Ditto
RespAge	Age of the respondent in years	VA_C1S04V01	10-103 A few 0-9 (dirty data?) Null	
RespSex	Sex of the respondent	VA_C1S04V02	FEM Female MAL Male DFT _default MIS _missing NAD _not applicable OTH _other RFS _refused	70% female

Verbal Autopsies Dataset Variable List

Variable Name	Description	Source in ACQ Verbal Autopsy database	Format/Codes/Special values	Notes/comments
Relationship	What was the relationship between the informant and the deceased?	VA_C1S04V03	CHI Child DAU Daughter-in-law FAT Father-in-law GRC Grandchild GRP Grandparent MOT Mother-in-law OTN Other non-relative OTR Other relative PAR Parent SIB Sibling SON Son-in-law SPO Spouse RFS _refused QRY _query MIS _missing DFT _default NAD _not applicable DKN _don't know	
RelationshipOther	Specify other	VA_C1S04V03a	Text string	
Education	How many years of education did the respondent complete?	VA_C1S04V04	0-66 Null	
EducationLevel	What was the highest level of education of the respondent?	VA_C1S04V05	PRI Primary SEC Secondary TER Tertiary NON None DKN _don't know MIS _missing RFS _refused	
MotherSurviving	If the deceased was a child and the mother was not the informant, is the child's mother still alive?	VA_C1S04V06	YES/NO etc as above	Mostly NAD
DeathCertificate	Was a death certificate issued?	VA_C1S05V01	YES/NO etc as above	68% say yes, 13% No

Verbal Autopsies Dataset Variable List

Variable Name	Description	Source in ACQ Verbal Autopsy database	Format/Codes/Special values	Notes/comments
CertificateSeen	Was the VA nurse able to see the death certificate?	VA_C1S05V02	YES/NO etc as above	
DeathCause	Record immediate cause of death appearing in the death certificate	VA_C1S05V03	Text string	
UnderlyingCause	Record first underlying cause of death appearing in the death certificate	VA_C1S05V04	Text string	
SecondCause	Record second underlying cause of death appearing in the death certificate	VA_C1S05V05	Text string	
ThirdCause	Record third cause of death appearing in the death certificate	VA_C1S05V06	Text string	Only ~20 non-blank responses
ContributingCause	Record the contributing cause of death appearing in the death certificate	VA_C1S05V07	Text string	Only a dozen non-blank responses

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SQL
/*
<Author>Colin Newell</Author>
<Date>12 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 12 May 2009 Original coding
</ChangeHistory>

Takes 8-10 minutes to run
drop table cntmpVAQuestionnaire_Ch1_14may09
select * into cntmpVAQuestionnaire_Ch1_14may09 from vacVAQuestionnaire_Ch1
*/
ALTER VIEW vacVAQuestionnaire_Ch1
AS
SELECT
    DN.SubjectID AS IIntID,
-- DN.QSessionID AS QSessionID, -- excluded as not usefiul to analysts.
-- Exclude following variables as the ones in ACDIScore datasets are more 'definitive'
-- MAX(CASE Variable WHEN 'VA_BSID' THEN CAST(Value AS int) ELSE NULL END) AS xx -- VA_BSID,
-- MAX(CASE Variable WHEN 'VA_DOB' THEN CAST(Value AS DATETIME) ELSE NULL END) AS xx -- VA_DOB,
-- MAX(CASE Variable WHEN 'VA_DOD' THEN CAST(Value AS DATETIME) ELSE NULL END) AS xx -- VA_DOD,
-- MAX(CASE Variable WHEN 'VA_DPlace' THEN CAST(Value AS char(3)) ELSE NULL END) AS xx -- VA_DPlace,
-- MAX(CASE Variable WHEN 'VA_Age' THEN CAST(Value AS int) ELSE NULL END) AS xx -- VA_Age,
-- MAX(CASE Variable WHEN 'VA_AgeUnit' THEN CAST(Value AS char(3)) ELSE NULL END) AS xx -- VA_AgeUnit,
-- MAX(CASE Variable WHEN 'VA_Sex' THEN CAST(Value AS char(3)) ELSE NULL END) AS xx -- VA_Sex,

-- Chapter 1, Section 1: Identification and circumstances of death
MAX(CASE Variable WHEN 'VA_C1S01V09' THEN CAST(Value AS varchar(255)) ELSE NULL END) Occupation,
MAX(CASE Variable WHEN 'VA_C1S01V10' THEN CAST(Value AS int) ELSE NULL END) EducationYears,
MAX(CASE Variable WHEN 'VA_C1S01V11' THEN CAST(Value AS INT) ELSE NULL END) IllDuration,
MAX(CASE Variable WHEN 'VA_C1S01V11b' THEN CAST(Value AS char(3)) ELSE NULL END) IllDurationUnit,
MAX(CASE Variable WHEN 'VA_C1S01V12' THEN CAST(Value AS CHAR(3)) ELSE NULL END) KnownCause,
MAX(CASE Variable WHEN 'VA_C1S01V13' THEN CAST(Value AS varchar(255)) ELSE NULL END) Cause,

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MAX(CASE Variable WHEN 'VA_C1S01V14' THEN CAST(Value AS CHAR(3)) ELSE NULL END) Informant,
MAX(CASE Variable WHEN 'VA_C1S01V15' THEN CAST(Value AS CHAR(3)) ELSE NULL END) HospAdmission,
MAX(CASE Variable WHEN 'VA_C1S01V16a' THEN CAST(Value AS DATETIME) ELSE NULL END) HlabisaAdmDate,
--MAX(CASE Variable WHEN 'VA_C1S01V16b' THEN CAST(Value AS varchar(255)) ELSE NULL END) HlabisaOPD#, -- omitted.
Personal data and not useful to scientists
--MAX(CASE Variable WHEN 'VA_C1S01V16c' THEN CAST(Value AS varchar(255)) ELSE NULL END) HlabisaReg#, -- omitted.
Personal data and not useful to scientists
MAX(CASE Variable WHEN 'VA_C1S01V17' THEN CAST(Value AS CHAR(3)) ELSE NULL END) Residence,
MAX(CASE Variable WHEN 'VA_C1S01V18' THEN CAST(Value AS CHAR(3)) ELSE NULL END) MaternalDeath,
MAX(CASE Variable WHEN 'VA_C1S01V19' THEN CAST(Value AS CHAR(3)) ELSE NULL END) Trauma,
MAX(CASE Variable WHEN 'VA_C1S02V01' THEN CAST(Value AS CHAR(3)) ELSE NULL END) DiseaseHabits, -- added by
cn. Removed later as 100% null
MAX(CASE Variable WHEN 'VA_C1S02V01a' THEN CAST(Value AS CHAR(3)) ELSE NULL END) EverHypertension,
MAX(CASE Variable WHEN 'VA_C1S02V01b' THEN CAST(Value AS CHAR(3)) ELSE NULL END) EverHIV_AIDS,
MAX(CASE Variable WHEN 'VA_C1S02V01c' THEN CAST(Value AS CHAR(3)) ELSE NULL END) EverAlcoholAbuse,
MAX(CASE Variable WHEN 'VA_C1S02V01d' THEN CAST(Value AS CHAR(3)) ELSE NULL END) EverNone,
MAX(CASE Variable WHEN 'VA_C1S02V01e' THEN CAST(Value AS CHAR(3)) ELSE NULL END) EverDiabetes,
MAX(CASE Variable WHEN 'VA_C1S02V01f' THEN CAST(Value AS CHAR(3)) ELSE NULL END) EverEpilepsy,
MAX(CASE Variable WHEN 'VA_C1S02V01g' THEN CAST(Value AS CHAR(3)) ELSE NULL END) EverSmoker,
MAX(CASE Variable WHEN 'VA_C1S02V01h' THEN CAST(Value AS CHAR(3)) ELSE NULL END) EverTuberculosis,
MAX(CASE Variable WHEN 'VA_C1S02V01i' THEN CAST(Value AS CHAR(3)) ELSE NULL END) EverAsthma,
MAX(CASE Variable WHEN 'VA_C1S02V01j' THEN CAST(Value AS CHAR(3)) ELSE NULL END) EverParalysis,
MAX(CASE Variable WHEN 'VA_C1S02V02' THEN CAST(Value AS CHAR(3)) ELSE NULL END) Medication,
MAX(CASE Variable WHEN 'VA_C1S02V03a' THEN CAST(Value AS varchar(255)) ELSE NULL END) WhichMedA,
MAX(CASE Variable WHEN 'VA_C1S02V03b' THEN CAST(Value AS varchar(255)) ELSE NULL END) WhichMedB,
--MAX(CASE Variable WHEN 'VA_C1S02V04' THEN CAST(Value AS CHAR(3)) ELSE NULL END) PriorDiagnoses, -- added by
cn. Removed later as 100% null
MAX(CASE Variable WHEN 'VA_C1S02V04a' THEN CAST(Value AS CHAR(3)) ELSE NULL END) DiagCancer,
MAX(CASE Variable WHEN 'VA_C1S02V04b' THEN CAST(Value AS CHAR(3)) ELSE NULL END) DiagMeningitis,
MAX(CASE Variable WHEN 'VA_C1S02V04c' THEN CAST(Value AS CHAR(3)) ELSE NULL END) DiagLiverDisease,
MAX(CASE Variable WHEN 'VA_C1S02V04d' THEN CAST(Value AS CHAR(3)) ELSE NULL END) DiagStroke,
MAX(CASE Variable WHEN 'VA_C1S02V04e' THEN CAST(Value AS CHAR(3)) ELSE NULL END) DiagPleuritis,
MAX(CASE Variable WHEN 'VA_C1S02V04f' THEN CAST(Value AS CHAR(3)) ELSE NULL END) DiagPneumonia,
MAX(CASE Variable WHEN 'VA_C1S02V04g' THEN CAST(Value AS CHAR(3)) ELSE NULL END) DiagRenalDisease,
MAX(CASE Variable WHEN 'VA_C1S02V04h' THEN CAST(Value AS CHAR(3)) ELSE NULL END) DiagMalaria,
MAX(CASE Variable WHEN 'VA_C1S02V04i' THEN CAST(Value AS CHAR(3)) ELSE NULL END) DiagHIV,
MAX(CASE Variable WHEN 'VA_C1S02V04j' THEN CAST(Value AS CHAR(3)) ELSE NULL END) DiagTuberculosis,
MAX(CASE Variable WHEN 'VA_C1S02V04k' THEN CAST(Value AS CHAR(3)) ELSE NULL END) DiagCardiacDisease,
MAX(CASE Variable WHEN 'VA_C1S02V04l' THEN CAST(Value AS CHAR(3)) ELSE NULL END) DiagNone,

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MAX(CASE Variable WHEN 'VA_C1S02V04m' THEN CAST(Value AS CHAR(3)) ELSE NULL END) DiagOther,
MAX(CASE Variable WHEN 'VA_C1S02V05' THEN CAST(Value AS DATETIME) ELSE NULL END) WhenDiagnosed,
MAX(CASE Variable WHEN 'VA_C1S02V06' THEN CAST(Value AS varchar(255)) ELSE NULL END) OtherDxSpecified,
MAX(CASE Variable WHEN 'VA_C1S02V07' THEN CAST(Value AS CHAR(3)) ELSE NULL END) MajorOperation,
MAX(CASE Variable WHEN 'VA_C1S02V08' THEN CAST(Value AS varchar(255)) ELSE NULL END) OperationYear,
MAX(CASE Variable WHEN 'VA_C1S02V09' THEN CAST(Value AS varchar(255)) ELSE NULL END) OperationSpecified,
MAX(CASE Variable WHEN 'VA_C1S02V10' THEN CAST(Value AS CHAR(3)) ELSE NULL END) FamilyIllDied,
MAX(CASE Variable WHEN 'VA_C1S02V11' THEN CAST(Value AS CHAR(3)) ELSE NULL END) FamilyDx,
MAX(CASE Variable WHEN 'VA_C1S02V12' THEN CAST(Value AS varchar(255)) ELSE NULL END) FamilyDXSpecified,
MAX(CASE Variable WHEN 'VA_C1S02V13' THEN CAST(Value AS varchar(255)) ELSE NULL END) FamilyRelation,
--MAX(CASE Variable WHEN 'VA_C1S03V01' THEN CAST(Value AS varchar(255)) ELSE NULL END) Care, -- added by cn.
Removed later. 100% null
MAX(CASE Variable WHEN 'VA_C1S03V01a' THEN CAST(Value AS varchar(255)) ELSE NULL END) Care_a,
MAX(CASE Variable WHEN 'VA_C1S03V01b' THEN CAST(Value AS varchar(255)) ELSE NULL END) Care_b,
MAX(CASE Variable WHEN 'VA_C1S03V01c' THEN CAST(Value AS varchar(255)) ELSE NULL END) Care_c,
MAX(CASE Variable WHEN 'VA_C1S03V01d' THEN CAST(Value AS varchar(255)) ELSE NULL END) Care_d,
MAX(CASE Variable WHEN 'VA_C1S03V01e' THEN CAST(Value AS varchar(255)) ELSE NULL END) Care_e,
MAX(CASE Variable WHEN 'VA_C1S03V01f' THEN CAST(Value AS varchar(255)) ELSE NULL END) Care_f,
MAX(CASE Variable WHEN 'VA_C1S03V01g' THEN CAST(Value AS varchar(255)) ELSE NULL END) Care_g,
MAX(CASE Variable WHEN 'VA_C1S03V01h' THEN CAST(Value AS varchar(255)) ELSE NULL END) Care_h,
MAX(CASE Variable WHEN 'VA_C1S04V01' THEN CAST(Value AS INT) ELSE NULL END) RespAge,
MAX(CASE Variable WHEN 'VA_C1S04V02' THEN CAST(Value AS CHAR(3)) ELSE NULL END) RespSex,
MAX(CASE Variable WHEN 'VA_C1S04V03' THEN CAST(Value AS CHAR(3)) ELSE NULL END) Relationship,
MAX(CASE Variable WHEN 'VA_C1S04V03a' THEN CAST(Value AS varchar(255)) ELSE NULL END) RelationshipOther,
MAX(CASE Variable WHEN 'VA_C1S04V04' THEN CAST(Value AS INT) ELSE NULL END) Education,
MAX(CASE Variable WHEN 'VA_C1S04V05' THEN CAST(Value AS CHAR(3)) ELSE NULL END) EducationLevel,
MAX(CASE Variable WHEN 'VA_C1S04V06' THEN CAST(Value AS CHAR(3)) ELSE NULL END) MotherSurviving,
MAX(CASE Variable WHEN 'VA_C1S05V01' THEN CAST(Value AS CHAR(3)) ELSE NULL END) DeathCertificate,
MAX(CASE Variable WHEN 'VA_C1S05V02' THEN CAST(Value AS CHAR(3)) ELSE NULL END) CertificateSeen,
MAX(CASE Variable WHEN 'VA_C1S05V03' THEN CAST(Value AS varchar(255)) ELSE NULL END) DeathCause,
MAX(CASE Variable WHEN 'VA_C1S05V04' THEN CAST(Value AS varchar(255)) ELSE NULL END) UnderlyingCause,
MAX(CASE Variable WHEN 'VA_C1S05V05' THEN CAST(Value AS varchar(255)) ELSE NULL END) SecondCause,
MAX(CASE Variable WHEN 'VA_C1S05V06' THEN CAST(Value AS varchar(255)) ELSE NULL END) ThirdCause,
MAX(CASE Variable WHEN 'VA_C1S05V07' THEN CAST(Value AS varchar(255)) ELSE NULL END) ContributingCause
FROM dbo.vacDefaultVAQ DN
JOIN dbo.udfQValues('VAQ') VN ON (DN.QSessionID = VN.QSessionID)
GROUP BY DN.SubjectID, DN.QSessionID

```