

South Africa - Trends in the prevalence  
and incidence of orphanhood in children  
and adolescents <20 years in rural  
KwaZulu-Natal South Africa, 2000-2014.  
Plos One 2019

**Dr Gabriela Mejia-Pailles - Independent consultant Mexico City**  
**Professor Nuala McGrath - University of Southampton; AHRI**  
**Professor Ann Berrington - University of Southampton**  
**Professor Vict**

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## Overview

### Identification

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**ID NUMBER**

UoS.PLOSONE.ORPHANHOOD.2014.v1

### Version

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**VERSION DESCRIPTION**

UoS.PLOSONE.ORPHANHOOD.2014.v1: Edited dataset for public distribution

**PRODUCTION DATE**

2019-08-13

### Overview

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**ABSTRACT**

These three datasets archive records for calculating the statistics presented in the publication: Gabriela Mejia-Pailles, Ann Berrington, Nuala McGrath & Victoria Hosegood. Trends in the prevalence and incidence of orphanhood in children and adolescents <20 years in rural KwaZulu-Natal South Africa, 2000-2014. PLOS ONE 2019 (full citation when available).

The paper documents trends in orphaning estimates from 2000-2014 in rural KwaZulu-Natal, South Africa. The study used existing longitudinal data collected by Africa Health Research Institute (AHRI) as part of demographic surveillance (ACDIS). We analysed longitudinal, population-based data for approximately 90,000 members of households collected during repeated routine household visits from 2000-2014. Data on between 30,000-34,000 children and adolescents (<20 years), and regularly updated survival status of their parents, were used to estimate: i) annual prevalence of maternal, paternal and double orphaning (years 2000, 2005, 2010 and 2014 only are presented in the paper), ii) maternal and paternal orphaning incidence (years 2000, 2005, 2010 and 2014 only are presented in the paper), and iii) annual mortality rates of mothers and fathers with children <20 years by cause (all years presented in paper). Further details on study methods are available in the published work.

**KIND OF DATA**

Sample survey data

**UNITS OF ANALYSIS**

Individual

### Scope

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**NOTES**

The study used existing longitudinal data collected by Africa Health Research Institute (AHRI) as part of demographic surveillance (ACDIS).

**TOPICS**

Topic	Vocabulary	URI
Child, Orphaned [D054540]	MeSH	<a href="https://www.ncbi.nlm.nih.gov/mesh">https://www.ncbi.nlm.nih.gov/mesh</a>

**KEYWORDS**

Orphaned Child, Children, Orphaned, Orphaned Children, Orphans, Orphan, Statistics and numerical data, South Africa, Parental death, Cause of death, HIV

## Coverage

### GEOGRAPHIC COVERAGE

uMkhanyakude district in northern KwaZulu-Natal

### UNIVERSE

The analysis included all children (0-19 years) who were resident members of households in the the AHRI DSS area between 1st January 2000 and 31 December 2014

## Producers and Sponsors

### PRIMARY INVESTIGATOR(S)

Name	Affiliation
Dr Gabriela Mejia-Pailles	Independent consultant Mexico City
Professor Nuala McGrath	University of Southampton; AHRI
Professor Ann Berrington	University of Southampton
Professor Victoria Hosegood	University of Southampton

### FUNDING

Name	Abbreviation	Role
ESRC - Project funding		
Wellcome Trust - WT - Core funding		

### OTHER ACKNOWLEDGEMENTS

Name	Affiliation	Role
The study participants from rural KwaZulu-Natal South Africa		

## Metadata Production

### METADATA PRODUCED BY

Name	Abbreviation	Affiliation	Role
Dr Gabriela Mejia-Pailles	GMP	Independent consultant	Lead Author
Victoria Hosegood	VH	University of Southampton	Documentation Author
Nuala McGrath	NM	University of Southampton	Documentation Author
iSHARE2 Technical Team - Tathagata Bhattacharjee	iS2TT		Generated DDI using Nesstar

### DATE OF METADATA PRODUCTION

2019-08-16

### DDI DOCUMENT VERSION

DDI.UoS.PLOSONE.ORPHANHOOD.2014.v1

### DDI DOCUMENT ID

DDI.UoS.PLOSONE.ORPHANHOOD.2014.v1

## Sampling

### **Sampling Procedure**

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Not applicable

## Questionnaires

No content available

## Data Collection

### Data Collection Dates

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<b>Start</b>	<b>End</b>	<b>Cycle</b>
2000	2014	N/A

### Data Collection Mode

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Face-to-face [f2f]

### Data Collectors

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<b>Name</b>	<b>Abbreviation</b>	<b>Affiliation</b>
Africa Health Research Institute (AHRI) as part of demographic surveillance	ACDIS	

## Data Processing

No content available

## Data Appraisal

No content available



## **File Description**

## **Variable List**

## Orphaning Incidence 2000-2014

Content	
Cases	96413
Variable(s)	33
Structure	Type: Keys: ()
Version	
Producer	
Missing Data	

## Variables

ID	Name	Label	Type	Format	Question
V1	id	id	contin	numeric	
V2	Mother_id	Mother_id	contin	numeric	
V3	Father_id	Father_id	contin	numeric	
V4	linked_mother	linked_mother	discrete	character	
V5	linked_father	linked_father	discrete	character	
V6	eligible2000	eligible2000	discrete	character	
V7	eligible2005	eligible2005	discrete	character	
V8	eligible2010	eligible2010	discrete	character	
V9	eligible2014	eligible2014	discrete	character	
V10	motheralive2000	motheralive2000	discrete	character	
V11	motheralive2005	motheralive2005	discrete	character	
V12	motheralive2010	motheralive2010	discrete	character	
V13	motheralive2014	motheralive2014	discrete	character	
V14	motherdied2000	motherdied2000	discrete	character	
V15	motherdied2005	motherdied2005	discrete	character	
V16	motherdied2010	motherdied2010	discrete	character	
V17	motherdied2014	motherdied2014	discrete	character	
V18	mother_exp2000	mother_exp2000	contin	numeric	
V19	mother_exp2005	mother_exp2005	contin	numeric	
V20	mother_exp2010	mother_exp2010	contin	numeric	
V21	mother_exp2014	mother_exp2014	discrete	numeric	
V22	father_exp2000	father_exp2000	contin	numeric	
V23	father_exp2005	father_exp2005	contin	numeric	
V24	father_exp2010	father_exp2010	contin	numeric	
V25	father_exp2014	father_exp2014	discrete	numeric	
V26	fatheralive2000	fatheralive2000	discrete	character	
V27	fatheralive2005	fatheralive2005	discrete	character	

<b>ID</b>	<b>Name</b>	<b>Label</b>	<b>Type</b>	<b>Format</b>	<b>Question</b>
V28	fatheralive2010	fatheralive2010	discrete	character	
V29	fatheralive2014	fatheralive2014	discrete	character	
V30	fatherdied2000	fatherdied2000	discrete	character	
V31	fatherdied2005	fatherdied2005	discrete	character	
V32	fatherdied2010	fatherdied2010	discrete	character	
V33	fatherdied2014	fatherdied2014	discrete	character	

## Orphaning Prevalence 2000-2014

Content	
Cases	96445
Variable(s)	13
Structure	Type: Keys: ()
Version	
Producer	
Missing Data	

## Variables

ID	Name	Label	Type	Format	Question
V34	id	id	contin	numeric	
V35	agegroup0	agegroup0	discrete	character	
V36	agegroup5	agegroup5	discrete	character	
V37	agegroup10	agegroup10	discrete	character	
V38	agegroup14	agegroup14	discrete	character	
V39	memstat0	memstat0	discrete	character	
V40	memstat5	memstat5	discrete	character	
V41	memstat10	memstat10	discrete	character	
V42	memstat14	memstat14	discrete	character	
V43	orphaning2000	orphaning2000	discrete	character	
V44	orphaning2005	orphaning2005	discrete	character	
V45	orphaning2010	orphaning2010	discrete	character	
V46	orphaning2014	orphaning2014	discrete	character	

## Parental Cause of death 2000-2014

Content

Cases 83194

Variable(s) 10

Structure Type:  
Keys: ()

Version

Producer

Missing Data

## Variables

ID	Name	Label	Type	Format	Question
V47	Mother_id	Mother_id	contin	numeric	
V48	Father_id	Father_id	contin	numeric	
V49	MotherDateBirth	MotherDateBirth	discrete	character	
V50	FatherDateBirth	FatherDateBirth	discrete	character	
V51	MotherDateDeath	MotherDateDeath	discrete	character	
V52	FatherDateDeath	FatherDateDeath	discrete	character	
V53	MotherCauseDeath	MotherCauseDeath	discrete	character	
V54	FatherCauseDeath	FatherCauseDeath	discrete	character	
V55	MotherYearDied	MotherYearDied	discrete	numeric	
V56	FatherYearDied	FatherYearDied	discrete	numeric	



id (id)

## File: Orphaning Incidence 2000-2014

### Overview

Type: Continuous	Valid cases: 96413
Format: numeric	Invalid: 0
Decimals: 0	Minimum: 21
Range: 21-175766	Maximum: 175766
	Mean: 96046.2
	Standard deviation: 50940

### Description

id number

Mother\_id (Mother\_id)

## File: Orphaning Incidence 2000-2014

### Overview

Type: Continuous	Valid cases: 76699
Format: numeric	Invalid: 19714
Decimals: 0	Minimum: 14
Range: 14-175763	Maximum: 175763
	Mean: 63734.2
	Standard deviation: 42409.2

### Description

Id of Mother of individual

Father\_id (Father\_id)

## File: Orphaning Incidence 2000-2014

### Overview

Type: Continuous	Valid cases: 40763
Format: numeric	Invalid: 55650
Decimals: 0	Minimum: 11
Range: 11-175720	Maximum: 175720
	Mean: 57834.2
	Standard deviation: 38980.3

### Description

Id of father of Individual

linked\_mother (linked\_mother)

## File: Orphaning Incidence 2000-2014

### Overview

Type: Discrete	Valid cases: 96413
Format: character	Invalid: 0
Width: 20	

### Description

Linkage to Mother

linked\_father (linked\_father)

## File: Orphaning Incidence 2000-2014



linked\_father (linked\_father)

File: Orphaning Incidence 2000-2014

**Overview**

Type: Discrete

Format: character

Width: 20

Valid cases: 96413

Invalid: 0

**Description**

Linkage to Father

eligible2000 (eligible2000)

File: Orphaning Incidence 2000-2014

**Overview**

Type: Discrete

Format: character

Width: 3

Valid cases: 47373

Invalid: 0

**Description**

Child eligible at beginning of observation period 2000

eligible2005 (eligible2005)

File: Orphaning Incidence 2000-2014

**Overview**

Type: Discrete

Format: character

Width: 3

Valid cases: 41746

Invalid: 0

**Description**

Child eligible at beginning of observation period 2005

eligible2010 (eligible2010)

File: Orphaning Incidence 2000-2014

**Overview**

Type: Discrete

Format: character

Width: 3

Valid cases: 39686

Invalid: 0

**Description**

Child eligible at beginning of observation period 2010

eligible2014 (eligible2014)

File: Orphaning Incidence 2000-2014

**Overview**

Type: Discrete

Format: character

Width: 3

Valid cases: 35464

Invalid: 0

**Description**

Child eligible at beginning of observation period 2014

## motheralive2000 (motheralive2000)

### File: Orphaning Incidence 2000-2014

#### Overview

Type: Discrete

Format: character

Width: 3

Valid cases: 96413

Invalid: 0

#### Description

Mother alive beginning of observation period 2000

## motheralive2005 (motheralive2005)

### File: Orphaning Incidence 2000-2014

#### Overview

Type: Discrete

Format: character

Width: 3

Valid cases: 96413

Invalid: 0

#### Description

Mother alive beginning of observation period 2005

## motheralive2010 (motheralive2010)

### File: Orphaning Incidence 2000-2014

#### Overview

Type: Discrete

Format: character

Width: 3

Valid cases: 96413

Invalid: 0

#### Description

Mother alive beginning of observation period 2010

## motheralive2014 (motheralive2014)

### File: Orphaning Incidence 2000-2014

#### Overview

Type: Discrete

Format: character

Width: 3

Valid cases: 96413

Invalid: 0

#### Description

Mother alive beginning of observation period 2014

## motherdied2000 (motherdied2000)

### File: Orphaning Incidence 2000-2014

#### Overview

Type: Discrete

Format: character

Width: 3

Valid cases: 47373

Invalid: 0

#### Description

failure event (became maternal orphan in 2000)

## motherdied2005 (motherdied2005)

### File: Orphaning Incidence 2000-2014

#### Overview

Type: Discrete

Format: character

Width: 3

Valid cases: 41746

Invalid: 0

#### Description

failure event (became maternal orphan in 2005)

## motherdied2010 (motherdied2010)

### File: Orphaning Incidence 2000-2014

#### Overview

Type: Discrete

Format: character

Width: 3

Valid cases: 39686

Invalid: 0

#### Description

failure event (became maternal orphan in 2010)

## motherdied2014 (motherdied2014)

### File: Orphaning Incidence 2000-2014

#### Overview

Type: Discrete

Format: character

Width: 3

Valid cases: 35464

Invalid: 0

#### Description

failure event (became maternal orphan in 2014)

## mother\_exp2000 (mother\_exp2000)

### File: Orphaning Incidence 2000-2014

#### Overview

Type: Continuous

Format: numeric

Decimals: 2

Range: 0-1

Valid cases: 45140

Invalid: 51273

Minimum: 0

Maximum: 1

Mean: 1

Standard deviation: 0.1

#### Description

Mother's exposure time 2000

## mother\_exp2005 (mother\_exp2005)

### File: Orphaning Incidence 2000-2014

#### Overview

## mother\_exp2005 (mother\_exp2005)

### File: Orphaning Incidence 2000-2014

Type: Continuous  
Format: numeric  
Decimals: 2  
Range: 0-1

Valid cases: 39970  
Invalid: 56443  
Minimum: 0  
Maximum: 1  
Mean: 1  
Standard deviation: 0.1

#### Description

Mother's exposure time 2005

## mother\_exp2010 (mother\_exp2010)

### File: Orphaning Incidence 2000-2014

#### Overview

Type: Continuous  
Format: numeric  
Decimals: 2  
Range: 0.0027397-1

Valid cases: 38150  
Invalid: 58263  
Minimum: 0  
Maximum: 1  
Mean: 1  
Standard deviation: 0.1

#### Description

Mother's exposure time 2010

## mother\_exp2014 (mother\_exp2014)

### File: Orphaning Incidence 2000-2014

#### Overview

Type: Discrete  
Format: numeric  
Decimals: 2  
Range: 0.0082192-1

Valid cases: 34545  
Invalid: 61868

#### Description

Mother's exposure time 2014

## father\_exp2000 (father\_exp2000)

### File: Orphaning Incidence 2000-2014

#### Overview

Type: Continuous  
Format: numeric  
Decimals: 2  
Range: 0-1

Valid cases: 45140  
Invalid: 51273  
Minimum: 0  
Maximum: 1  
Mean: 1  
Standard deviation: 0.1

#### Description

Father's exposure time 2000

## father\_exp2005 (father\_exp2005)

### File: Orphaning Incidence 2000-2014

## father\_exp2005 (father\_exp2005) File: Orphaning Incidence 2000-2014

### Overview

Type: Continuous	Valid cases: 39961
Format: numeric	Invalid: 56452
Decimals: 2	Minimum: 0
Range: 0-1	Maximum: 1
	Mean: 1
	Standard deviation: 0.1

### Description

Father's exposure time 2005

## father\_exp2010 (father\_exp2010) File: Orphaning Incidence 2000-2014

### Overview

Type: Continuous	Valid cases: 38140
Format: numeric	Invalid: 58273
Decimals: 2	Minimum: 0
Range: 0-1	Maximum: 1
	Mean: 1
	Standard deviation: 0.1

### Description

Father's exposure time 2010

## father\_exp2014 (father\_exp2014) File: Orphaning Incidence 2000-2014

### Overview

Type: Discrete	Valid cases: 34544
Format: numeric	Invalid: 61869
Decimals: 2	
Range: 0.0054795-1	

### Description

Father's exposure time 2014

## fatheralive2000 (fatheralive2000) File: Orphaning Incidence 2000-2014

### Overview

Type: Discrete	Valid cases: 96413
Format: character	Invalid: 0
Width: 3	

### Description

Father alive beginning of observation period 2000

## fatheralive2005 (fatheralive2005) File: Orphaning Incidence 2000-2014

### Overview

fatheralive2005 (fatheralive2005)

File: Orphaning Incidence 2000-2014

Type: Discrete

Valid cases: 96413

Format: character

Invalid: 0

Width: 3

**Description**

Father alive beginning of observation period 2005

fatheralive2010 (fatheralive2010)

File: Orphaning Incidence 2000-2014

**Overview**

Type: Discrete

Valid cases: 96413

Format: character

Invalid: 0

Width: 3

**Description**

Father alive beginning of observation period 2010

fatheralive2014 (fatheralive2014)

File: Orphaning Incidence 2000-2014

**Overview**

Type: Discrete

Valid cases: 96413

Format: character

Invalid: 0

Width: 3

**Description**

Father alive beginning of observation period 2014

fatherdied2000 (fatherdied2000)

File: Orphaning Incidence 2000-2014

**Overview**

Type: Discrete

Valid cases: 47373

Format: character

Invalid: 0

Width: 3

**Description**

failure event (became paternal orphan in 2000)

fatherdied2005 (fatherdied2005)

File: Orphaning Incidence 2000-2014

**Overview**

Type: Discrete

Valid cases: 41746

Format: character

Invalid: 0

Width: 3

**Description**

failure event (became paternal orphan in 2005)

## fatherdied2010 (fatherdied2010) File: Orphaning Incidence 2000-2014

### Overview

Type: Discrete

Format: character

Width: 3

Valid cases: 39686

Invalid: 0

### Description

failure event (became paternal orphan in 2010)

## fatherdied2014 (fatherdied2014) File: Orphaning Incidence 2000-2014

### Overview

Type: Discrete

Format: character

Width: 3

Valid cases: 35464

Invalid: 0

### Description

failure event (became paternal orphan in 2014)

id (id)

## File: Orphaning Prevalence 2000-2014

### Overview

Type: Continuous	Valid cases: 96445
Format: numeric	Invalid: 0
Decimals: 0	Minimum: 21
Range: 21-175766	Maximum: 175766
	Mean: 90737.8
	Standard deviation: 50504.8

### Description

Id number

agegroup0 (agegroup0)

## File: Orphaning Prevalence 2000-2014

### Overview

Type: Discrete	Valid cases: 45158
Format: character	Invalid: 0
Width: 6	

### Description

age group in 2000

agegroup5 (agegroup5)

## File: Orphaning Prevalence 2000-2014

### Overview

Type: Discrete	Valid cases: 43127
Format: character	Invalid: 0
Width: 6	

### Description

age group in 2005

agegroup10 (agegroup10)

## File: Orphaning Prevalence 2000-2014

### Overview

Type: Discrete	Valid cases: 43295
Format: character	Invalid: 0
Width: 6	

### Description

age group in 2010

agegroup14 (agegroup14)

## File: Orphaning Prevalence 2000-2014

### Overview

Type: Discrete	Valid cases: 39720
Format: character	Invalid: 0
Width: 6	

### Description



## agegroup14 (agegroup14)

### File: Orphaning Prevalence 2000-2014

age group in 2014

## memstat0 (memstat0)

### File: Orphaning Prevalence 2000-2014

#### Overview

Type: Discrete	Valid cases: 45158
Format: character	Invalid: 0
Width: 19	

#### Description

Membership status in 2000 (resident or not)

## memstat5 (memstat5)

### File: Orphaning Prevalence 2000-2014

#### Overview

Type: Discrete	Valid cases: 43127
Format: character	Invalid: 0
Width: 19	

#### Description

Membership status in 2005 (resident or not)

## memstat10 (memstat10)

### File: Orphaning Prevalence 2000-2014

#### Overview

Type: Discrete	Valid cases: 43295
Format: character	Invalid: 0
Width: 19	

#### Description

Membership status in 2010 (resident or not)

## memstat14 (memstat14)

### File: Orphaning Prevalence 2000-2014

#### Overview

Type: Discrete	Valid cases: 39720
Format: character	Invalid: 0
Width: 19	

#### Description

Membership status in 2014 (resident or not)

## orphaning2000 (orphaning2000)

### File: Orphaning Prevalence 2000-2014

#### Overview

## orphaning2000 (orphaning2000)

### File: Orphaning Prevalence 2000-2014

Type: Discrete  
Format: character  
Width: 15

Valid cases: 44912  
Invalid: 0

#### Description

Orphaning status in 2000

## orphaning2005 (orphaning2005)

### File: Orphaning Prevalence 2000-2014

#### Overview

Type: Discrete  
Format: character  
Width: 15

Valid cases: 42318  
Invalid: 0

#### Description

Orphaning status in 2005

## orphaning2010 (orphaning2010)

### File: Orphaning Prevalence 2000-2014

#### Overview

Type: Discrete  
Format: character  
Width: 15

Valid cases: 42381  
Invalid: 0

#### Description

Orphaning status in 2010

## orphaning2014 (orphaning2014)

### File: Orphaning Prevalence 2000-2014

#### Overview

Type: Discrete  
Format: character  
Width: 15

Valid cases: 38989  
Invalid: 0

#### Description

Orphaning status in 2014

## Mother\_id (Mother\_id)

### File: Parental Cause of death 2000-2014

#### Overview

Type: Continuous	Valid cases: 76699
Format: numeric	Invalid: 6495
Decimals: 0	Minimum: 14
Range: 14-175763	Maximum: 175763
	Mean: 63734.2
	Standard deviation: 42409.2

#### Description

Id of Mother of individual

## Father\_id (Father\_id)

### File: Parental Cause of death 2000-2014

#### Overview

Type: Continuous	Valid cases: 40763
Format: numeric	Invalid: 42431
Decimals: 0	Minimum: 11
Range: 11-175720	Maximum: 175720
	Mean: 57834.2
	Standard deviation: 38980.3

#### Description

Id of Father of individual

## MotherDateBirth (MotherDateBirth)

### File: Parental Cause of death 2000-2014

#### Overview

Type: Discrete	Valid cases: 76699
Format: character	Invalid: 0
Width: 9	

#### Description

Mother's date of birth

## FatherDateBirth (FatherDateBirth)

### File: Parental Cause of death 2000-2014

#### Overview

Type: Discrete	Valid cases: 40763
Format: character	Invalid: 0
Width: 9	

#### Description

Father's date of birth

## MotherDateDeath (MotherDateDeath)

### File: Parental Cause of death 2000-2014

#### Overview

## MotherDateDeath (MotherDateDeath)

### File: Parental Cause of death 2000-2014

Type: Discrete

Format: character

Width: 9

Valid cases: 11700

Invalid: 0

#### Description

Mother's date of death

## FatherDateDeath (FatherDateDeath)

### File: Parental Cause of death 2000-2014

#### Overview

Type: Discrete

Format: character

Width: 9

Valid cases: 19608

Invalid: 0

#### Description

Father's date of death

## MotherCauseDeath (MotherCauseDeath)

### File: Parental Cause of death 2000-2014

#### Overview

Type: Discrete

Format: character

Width: 16

Valid cases: 10268

Invalid: 0

#### Description

Mother's cause of death

## FatherCauseDeath (FatherCauseDeath)

### File: Parental Cause of death 2000-2014

#### Overview

Type: Discrete

Format: character

Width: 16

Valid cases: 10750

Invalid: 0

#### Description

Father's cause of death

## MotherYearDied (MotherYearDied)

### File: Parental Cause of death 2000-2014

#### Overview

Type: Discrete

Format: numeric

Decimals: 0

Range: 2000-2015

Valid cases: 10268

Invalid: 72926

#### Description

Mother's year of death

## FatherYearDied (FatherYearDied)

### File: Parental Cause of death 2000-2014

#### Overview

Type: Discrete  
Format: numeric  
Decimals: 0  
Range: 2000-2015

Valid cases: 10750  
Invalid: 72444

#### Description

Father's year of death

