Ministry of Economy, Finance and Planning
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Completeness and coverage of CRVS in Senegal: analyzing census data to identify barriers to death registration

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PLAN

1. Introduction

2. Data and methods

3. Results (descriptive analysis and multi-level model)

4. Discussion and conclusion
Introduction (1) : SENEGAL IN BRIEF

- Population (2013 Census): 13,508,715
- Total area: 196,712 km²
- Density en 2013: 69 hab/km²
- Number of households: 1,607,768
- Median age: 18.7
- Life expectancy (both sexes): 64.8
- Total fertility rate: 4.1 in urban areas, 6.2 in rural areas
Introduction (2) : CRVS in Senegal

  - CRVS is the « Achilles heel » of the system

- Importance of CRVS in Senegal:
  - National Office for CRVS (CNEC) founded in 2004
  - Rapid assessment of CRVS identifying the main obstacles for improving CRVS
  - Survey on vital statistics in 2010 which reviewed the tools of vital statistic and recommended best ways for transmitting vital statistics to the NSO and others.
  - Large program (PAMEC) funded by the EU.
Introduction (3) : Content of vital statistics

- Birth
- Death
- Marriage
- Causes of death (Ministry of Health)
- Divorce (Ministry of Justice)
Introduction (4) : Civil registration law

• Family code:
  1. Article 40 provides that civil registrars (« officiers d’état civil ») should submit every 3 months the vital statistics to the NSO.
  2. Article 67 stipulates that all deaths must be registered within a month and a half and late declarations are possible up to one year after the death. To register a death more than a year after its occurrence, a decision from the Justice of the Peace is required.
Data and methods (1) : Data sources

1. Use of individual-level data from the 2013 census :
   - Questions on recent household deaths (in the past 12 months)
   - For each death: Was this death registered?
   - A similar question was included in censuses of Namibia in 2001, Nicaragua in 2005 and Belize in 2010, although this is not part of the United Nations Recommendations.

2. Diagnostic of CRVS system (2014) :
   - Number of Civil registration offices for each region
Data and methods (2) : Methods

• Regression model with two levels: (1) household level (using both the characteristics of the head of HH and the characteristics of the deceased), and (2) region.

• Combination of the two sources of data (census and diagnostic survey) at the regional level

• Dependent variable: whether the death was registered or not

• Predictors:
  – At household level: age and sex of the deceased, ethnicity, level of education of the head of household, age and sex of the head, and urban/rural type of residence
  – At the regional level: region of residence and the number of civil registration centers

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Results (1)

• **Descriptive analysis:**

  - **Low proportion of registered deaths**: Overall 30% of all deaths were registered (according to the 2013 census).
  
  - **Large variations between regions**: with Dakar (83%), Ziguinchor (38%), and Saint Louis (35%) on the one side, and Kolda (10%), Sédhiou (9%) and Kaffrine (8%) on the other side.

  - **Little progress since 2002 (previous census)**: Overall, 29.6% of all deaths were also registered in 2002. Wide regional variations were also observed in 2002. In Dakar, the percentage of registered deaths was 85% in the city of Dakar, 84% in Guédiawaye, 82% in Pikine and 73% in Bambey.
Results (2)

Regions with the highest completeness of death reporting are located in north-west of the country.
Results (3)

There is no clear relationship between the number of registration offices (689 in total for Senegal) and the completeness of death reporting (ex. Ziguinchor).
Results (4): Descriptive analysis

- At the household level:
  - Male deaths are more frequently registered than female deaths (32.2% against 27.5%)
  - Registration is more frequent when the HH head is a female (48.7% against 24.2%)
  - Completeness varies by age: higher for 18-59 (38%), lower for children aged less than 5 (15%) and 5-17 (20%)
  - Registration is more frequent when the HH head is more educated: 25% for HH without diploma, 57% for primary education, 62% secondary education and 72% for higher

- At the regional level
  - When ranking regions according to the total number of offices, no clear relationship (regions in ranks 10-14 register more deaths than regions in ranks 5-9)
Results (5): Multi-level model

- Significant covariates at the individual level:
  + Level of educational attainment of the HH head
  + HH head being a female
  + Deceased being a male
  + Deceased being aged 18-59
  + Household being in urban areas

- At the regional level:
  + Dakar/Thies differ from other regions
  - No significant association with the ranking of the region in terms of number of registration offices.
Conclusions

• The registration of deaths is still a national problem as the coverage/completeness are very low, especially in rural areas;
• The population still ignores the importance of registering deaths
• People are registering in urban areas because of the need to obtain a burial permit or to have documentation for heritage or pension;
• There is no obvious link between availability of registration centers and registration of deaths;
Conclusions (2)

• More research is needed to explore other dimensions of the service offered by registration offices:
  – their accessibility (distance to get to the registration center, quality of the road and availability of public transportation, etc.)
  – their equipment
THANK YOU FOR YOUR ATTENTION