Toward understanding patterns and dynamics in later life poverty in urban slums, Kenya

Isabella Aboderin, PhD
Razak Gyasi, PhD
Outline

• Context and points of departure
• Aims
• Data source and methods
• Initial findings
• Possible implications:
  - for policy, measurement, further research
Context
Debate on global aging seeks to understand, plan responses to:

1) Evolving **individual** needs arising within expanding populations of ‘older’ adults

1) Related **societal** challenges (and opportunities) arising with progressively maturing age structures

• SDG entail imperatives for both
'Characteristics approach’ focuses on need to consider:

– Chronological age structure

and

– Age-specific attributes (with dependence, need)

– Country-specific analyses
  (mainly OECD and emerging market countries)
Points of departure
1. Focus on sub-Saharan Africa (SSA)

- ‘Youngest’ region -- yet aging is an issue:
  - Absolute size of population of adults 60+ y (54 million)
  - Pace of rise in absolute size and total population share → more rapid than in any other region
  - Opportunity to begin to forge, and hone over time systems to harness maturing populations
2. Focus on poverty

– Salient in SSA

– Assumptions about heightened vulnerability of older adults to poverty

– Little robust evidence
3. Focus on urban informal settlements: ‘slums’

- Need to go beyond national-level analyses
  → understand age-structures and characteristics in specific socio-spatial contexts

- Slums highly salient context within which individuals’ lives unfold in SSA:
SSA has:

• Largest % of urban dwellers who live in slums (55%)
• Largest growth in absolute number of slum dwellers
• 56% of total global increase in number of slum dwellers (1990-2014)
• Rate of increase in number of slum dwellers same as for overall urban population
Aims
1) Initial exploration in defined slum population of:

   – Trends in chronological age structure
   – Patterns, trends in poverty-age relationship

2) Distillation of potential implications for: policy, measurement, further research
Data source
• Nairobi Urban Health and Demographic Surveillance System (NUHDSS)
  – Operated by APHRC 2002 – present
  – One of only two urban DSS in SSA
  – Twice-yearly tracking of ≈24,000 HH (two slum communities: Korogocho, Viwandani)

• Currently N≈ 1,829 adults aged 60+ years
Methods
• Data period: nine years (2007 – 2015)  
  (2015: major roll out of social pension)

• Variables:
  – Individual: gender, chronological age
  – Household: composition, poverty

• Poverty measure: Food (in)security (subjective)
  – relevant to SDG 1 and 2
  – emerges as key concern in qualitative work
• Statistical analyses
  – Descriptive uni- and bi-variate
  – Multivariate logistic regression
Initial findings I

Age structure: trends
Trends in absolute numbers: overall and age-specific slum population

YEAR | NUMBER | 60+ | 36-59 | 18-35 | <18
--- | --- | --- | --- | --- | ---
2007 | 60000 | 1000 | 3000 | 30000 | 28000
2010 | 70000 | 1500 | 3500 | 35000 | 26000
2013 | 65000 | 1200 | 4000 | 32000 | 25000
2015 | 65000 | 1000 | 3500 | 31000 | 25000

A global center of excellence, consistently generating and delivering relevant scientific evidence for policy and action
• Rising population share of adults aged 60+ years
  – Rapid pace: faster than national rate
Trend in total population proportion of adults 60+ years

- 41.4% rise overall
- (5.2% annually)
• Rise in total population share of older adults confined to age groups 60-69 years and 70-79 years
Trend in total population proportion, older age groups

A global center of excellence, consistently generating and delivering relevant scientific evidence for policy and action
Initial findings II
Chronological age and poverty
• Rising food insecurity prevalence with advanced chronological age
Percentage of individuals living in food insecure households by age group, 2015

A global center of excellence, consistently generating and delivering relevant scientific evidence for policy and action
• Same association observed across years (despite overall ↓ in food insecurity levels 2007-2015)
Percentage of individuals living in food insecure households by age group, 2007, 2010, 2015
Strong, significant relationship between advanced chronological age and food insecurity – consistent across years

<table>
<thead>
<tr>
<th>Food Security: 1=Food Secure &amp; 0=Food Insecure</th>
<th>2007</th>
<th>2010</th>
<th>2013</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>OR</td>
<td>OR</td>
<td>OR</td>
<td>OR</td>
<td>OR</td>
</tr>
<tr>
<td>Age (Ref=18-35)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>36-59</td>
<td>0.86***</td>
<td>0.89***</td>
<td>0.89***</td>
<td>0.83***</td>
</tr>
<tr>
<td>60-69</td>
<td>0.66***</td>
<td>0.68***</td>
<td>0.60***</td>
<td>0.56***</td>
</tr>
<tr>
<td>70-79</td>
<td>0.42***</td>
<td>0.48***</td>
<td>0.43***</td>
<td>0.42***</td>
</tr>
<tr>
<td>80+</td>
<td>0.41**</td>
<td>0.57*</td>
<td>0.43***</td>
<td>0.51**</td>
</tr>
<tr>
<td>Wealth Index (Ref=Poorest)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Middle</td>
<td>1.44***</td>
<td>1.55***</td>
<td>1.75***</td>
<td>1.49***</td>
</tr>
<tr>
<td>Least poor</td>
<td>2.56***</td>
<td>3.29***</td>
<td>2.75***</td>
<td>2.36***</td>
</tr>
<tr>
<td>Gender (Ref=Female)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>1.03</td>
<td>1.07***</td>
<td>1.06**</td>
<td>1.13***</td>
</tr>
<tr>
<td>Household Size</td>
<td>0.89***</td>
<td>0.89***</td>
<td>0.84***</td>
<td>0.90***</td>
</tr>
</tbody>
</table>

***$P<.001$; **$P<.005$; *$P<.05$
What might our initial findings mean?
1. Slum populations may be aging (chronologically) **faster** than overall (or rural) populations

- May reflect:
  - later life rural-urban migration
  - ‘aging in place’
  - delayed / ceased return migration to rural homes
2. (Older) age may represent an axis of inequality in food security in slum populations

- Food insecurity – need for social protection? – is salient characteristic of older (60+) slum population

- May reflect lack of:
  - earlier life saving opportunities (informal sector)
  - kin support; capacity/opportunity to work
  - access to formal pensions; social protection
Possible implications...
For policy:

• Need for focus on slums in SSA aging agenda – and focus on aging in SSA slum agenda (post Habitat III)

• Targeted social pension need from age 60 years → Current universal eligibility age (70+) too high

• Role for ‘preventive’ efforts (saving mechanisms for informal sector working-age adults)?
For measurement:

• Self-report (subjective) food security - simple measure, relevant to SDG 1 and 2

• But: household based – unable to capture intra-HH allocation of food (resources): may over/under estimate food insecurity in older population

• Other, more relevant individual-level measures?
For further research:

- Evolving trends in age structure, food insecurity post 2015 (effects of social pension roll-out since 2015)?
- Comparison with rural/non-slum urban populations
- Interrogating the older age-food insecurity relationship (explanatory factors? age, cohort, period effects?)
• Others?
Thank you
The key point about the figure is that it highlights the clear existence of ...

• Disparities in level of deprivation within overall poor slum population

• Slums among most unequal settlements globally
• Now we turn to our exploration of how, if at all, levels of deprivation or poverty relate to chronological age ...
• Insert figure (stacked columns) showing overall % of individuals in age group 60 +) (i) living in food (in)secure HHs by age **for 2015**
• Insert same figure as previous (stacked columns) showing overall % of individuals in age group 60 +) (i) living in food (in)secure HHs by age but with stacked columns for 2013, 2010, 2007 added
• Insert figure (graph) showing overall % of individuals by broad age group (<18, 18-35, 36-59, 60-69, 70-79, 80+) (i) living in food insecure HHs by age for 2015
The key points emerging from the previous two figures is that Food insecurity and absolute wealth deprivation appear to be characteristics of a majority of the chronologically older population.

The risk of such particular deprivation appears to be associated with advanced chronological older age (60 years and above).

This may reflect among others, older slum dwellers’ past economic activity predominantly in the informal sector with low, precarious incomes, which implies a lack of access to formal sector pensions or insurance schemes and limited opportunities for savings, combined with a lack of or limited cover by social protection schemes (a point of which we’ll return later).
We looked at whether or not these patterns have changed over time by looking at 2007 and 2010 data and found no huge variations in the basic patterns.

-show same graph, this time with lines for 2007 and 2010 data added
No major change in age-poverty level patterns over successive cohorts over period of nine years 2007-2015
This raises the question as to what underlies the association and whether or not it is indeed chronological age-related.

To begin to explore this we’ve run some logistic regression analyses models with only a few additional variables – gender and household size and, for food security, wealth status.

Showing relationship of chronological age to food insecurity to get stronger