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Social determinants of health and HIV prevention and care project planning: A case study among beneficiaries of the United States President's Emergency Plan for AIDS Relief (PEPFAR) in Gaza province of Mozambique, South East Africa

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Presenter Disclosures

No relationships to disclose

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## HIV Situation in Sub-Saharan Africa

- 1.9m people newly infected in 2008 alone
- Adult prevalence is 5.2% in 2008
- 22.4m total number of people estimated to be living with HIV
- 1.4m deaths estimated to have occurred in 2008 alone
- 72% of the worlds' AIDS-related deaths in 2008 is estimated to have occurred in Sub-Saharan Africa
- 67% of HIV infections worldwide, 68% of new HIV infections among adults, 91% of new HIV infections among children
- Women in sub-Saharan Africa constitute approximately 60% of estimated HIV infections

Subsaharan region remains the most heavily affected by HIV (UNAIDS, 2009, p.21)  
Women in sub-Saharan Africa are affected by a complexity of social, legal and economic disadvantages often uniquely confronted by women and womens' physiological susceptibility to heterosexual transmission of HIV (UNAIDS, 2009, p.22)

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## HIV/AIDS in Mozambique and Gaza province

Prevalencia do HIV ANC 2007

- 54% of Mozambique's population lived in absolute poverty in 2003 (WHO)
- 16% among pregnant women and 14% in the general population
- 98,000 deaths were attributable to HIV/AIDS in 2008
- An average of 500 new infections occur daily. HIV/AIDS has reduced life expectancy from 41 in 1999 to 38.1 in 2004
- Gaza province has the highest prevalence in the country at 27%
- Majority of those infected are women

Mozambique is one of the poorest countries in the world, 184 out of 187 countries in the 2011 (UNDP Human Development Index)

First diagnosed case of HIV/AIDS in Mozambique was 1986 (UNICEF 2004).

16% among pregnant women and 14% in the general population (INE 2008, p.3).



Recent trend analysis (2001 – 2009) of the median HIV prevalence among pregnant women across regions shows signs of stabilization in the north and central regions at 18% and 9% respectively and an increase in the southern region at 21% (CNCS 2010, p.13&15)

Women are disproportionately affected and infected due to the imbalance of social, sexual and physical power women often have no choice to insist on safe sex. HIV prevalence among girls aged 15-49 is three times higher than that of boys and young men.

In 2004, HIV/AIDS prevalence was 2.6% among 15-19 year old boys and 6.9% among 20-24 year-old men compared to 8.1% and 20.9% among girls and women of those age groups. (UNICEF 2012, [http://www.unicef.org/mozambique/hiv\\_aids\\_2045.html](http://www.unicef.org/mozambique/hiv_aids_2045.html))

Map-[http://www.audiencescapes.org/sites/default/files/Map%203\\_1.jpg](http://www.audiencescapes.org/sites/default/files/Map%203_1.jpg)

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### PEPFAR in Mozambique and Gaza

- The President's Emergency Plan for AIDS Relief" or PEPFAR stated in 2003 under the Leadership Act as a comprehensive, integrated strategy for the U.S. government to combat global HIV/AIDS
- Treatment for 4 million people, prevent 12 million new infections and care for 12 million people including 5 million orphans and vulnerable children (OVC)
- PEPFAR activities in Gaza emphasize a family centered approach to support PLHIV and OVCs through:
  - expansion HIV treatment sites, training of tutors and health mentors,
  - school based programs for youth,
  - recruitment and training of community 'activistas' or volunteers in patient tracking and follow-up systems to improve adherence to ART regimen and care and support of OVC and People Living with HIV (PLHIV).
  - Services provided through government of Mozambique, NGOs and CBOs

On May 27, 2003, the United States (U.S.) Congress passed the U.S. Leadership against HIV/AIDS, Tuberculosis, and Malaria Act of 2003 (Leadership Act) and launched the U.S. Global AIDS Initiative. The broad legislation required the U.S. President to establish a comprehensive, integrated 5-year strategy to combat global HIV/AIDS with the ultimate goal of achieving sustainable gains against the HIV/AIDS pandemic. The initiative is commonly known as: "PEPFAR" (IOM 2007, p.3).

PEPFAR' focuses on 33 countries which include Mozambique. These countries collectively represented around 50 percent of HIV infections worldwide. (Mozambique PEPFAR COP 2009, p.102, 250&398).

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### Measure of PEPFAR's success quantitative vs qualitative

- PEPFAR in Mozambique
  - \$37.5m in 2004
  - \$268.6m in 2011
- PEPFAR's impressive quantitative indicators →
- Little research on effects of these interventions on the broader determinants of health

- 197,000 on antiretroviral treatment
- 710,000 HIV-positive individuals who received care and support (including TB/HIV)
- 141,400 orphans and vulnerable children supported
- 565,900 pregnant women with known HIV status receiving services
- 43,500 HIV-positive pregnant women receiving antiretroviral prophylaxis for PMTCT
- 1,809,800 individuals receiving counseling and testing
- 12,653 estimated infant HIV infections averted

<http://www.pepfar.gov/countries/mozambique/index.htm>

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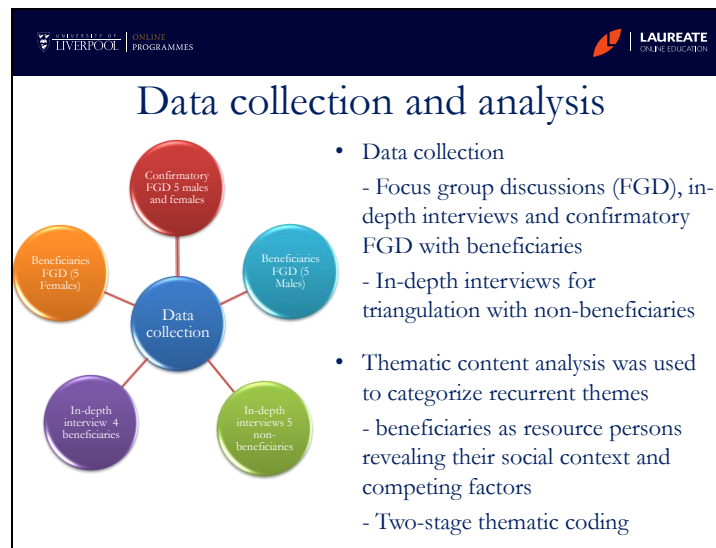
### Research question and sample selection

- **What are the effects of the PEPFAR response on beneficiaries' determinants of health in a semi-urban community in Gaza province Mozambique?**
- Gaza province is 200KM from Maputo, borders the Republic of South Africa and Zimbabwe
- Main economic activity is subsistence agriculture and migrant work
- Recruitment of research participants was through a CBO named 'Reencontro' which delivers PEPFAR interventions in Patrice Lumumba
- Adults aged 18 - 65 with first hand knowledge of PEPFAR care and support intervention for over 18 months

The questions covered personal history (demographics); perception of determinants of health; experience and perception of PEPFAR in their community; elements of PEPFAR that influence determinants of health; and suggestions to improve future community programs (Appendix 7).

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Sample demographics	
Age	21 - 77 years old
Sex	8 males, 15 females
Marital status	1 single, 12 married, 10 widowed
Level of educational attainment	3 had no formal education, 15 had elementary level, 4 had middle school level, 1 attended adult literacy education classes
Length of time involved with the PEPFAR program	4 over three years, 4 for two years, 7 for over 20 months, 8 were not beneficiaries of the program
Occupation	16 farmers, 1 part time as a pastor, 1 was a mason, 1 was a guard, 4 no named occupation, 1 was a student



Qualitative methods were used to generate emerging themes. Qualitative approach to research renders explanations to why things operate in the manner in which they do rather than on how things operate. It is best suited for research where little is known about the topic. Instead of testing hypotheses which is the forte of quantitative methods, qualitative methods generate hypotheses from human experience (Pope et al, 1995). Therefore, the study design used semi-structured focus groups and in-depth interviews from primary data sources.



#### Epistemological framework

Critical theory was used to construct what constitutes knowledge. Critical theory acknowledges that the collected data from the respondents and the presentation of uncovered information by the researcher are not value-free (Harvey 1990, p.19-20 cited in Green et al, 2004) but are framed by their socialization and intuitive beliefs. Critical theory approach holds that data collected from this study is from the view that society is a collection of many fractions competing for power and resources and that the social phenomenon being experienced and expressed is framed by the respondents' specific historical context or social structure. This approach enables the researcher to view beneficiaries of PEPFAR as respected sources of knowledge gained from their adversity (Alderson 1998). The researcher used this approach to uncover beneficiaries' social context and the recurrent competing factors which affect their health choices which may or may not have been affected by PEPFAR.

Analysis was completed in two stages after which results were grouped. The first stage consisted of analyzing responses under each question and the second stage was to analyze across responses for emerging themes. Initially all responses were read and the commonalities between the responses relating to similar questions were noted. Secondly, codes which summarize the key points were allocated to the responses and were colour coded across all interviews with similar codes allocated similar colours. Next, all codes were reviewed for likely patterns in relation to the research aim and noticeable patterns were grouped into sub-themes. In the final step all sub-

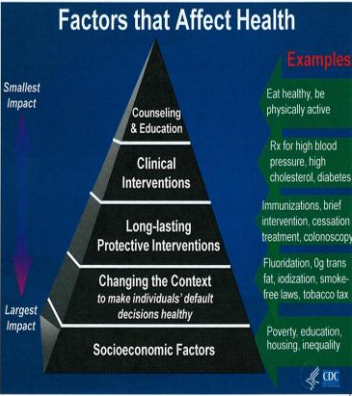
themes were reviewed for relativity with regards to the aim of the study and findings from literature and all related sub-themes were grouped into broader themes presented below.

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## Determinants of health and HIV/AIDS

Frieden (2010) proposed a 5-tier pyramid as a framework for public health action. He proposes that public health interventions with the greatest potential impact are those which address socioeconomic determinants of health and change the context to make individuals' default decisions healthy



<http://azhousingalliance.blogspot.com/2012/04/housing-is-health.html>

Frieden, T. (2010). 'A Framework for Public Health Action: The Health Impact Pyramid.' *American Journal of Public Health*, April 2010, Vol 100, No. 4. Accessed on: March 29, 2010.

The IOM's 2007 assessment of PEPFAR's progress asserts that poor socioeconomic conditions exacerbate all efforts to improve the well-being, especially the health, of populations. Even within more affluent countries with more resources devoted to health care, conscious emphasis need to be placed on the determinants of health of the population. An 1866 quote from William Farr states that 'no variation in the health of the states of Europe is the result of chance; [but] the direct result of physical and political conditions in which nations live.' Studies such as Berkman (2008)s' shows that the U.S.'s ranking in the lower tiers of the Organization of Economic Cooperation and Development (OECD) countries in life expectancy can be traced to decades of widening socioeconomic inequalities in social, behavioural and environmental conditions which affect health. Such findings have spiked rigorous longitudinal studies to design effective interventions and make specific policy changes to modify these conditions.





### Beneficiary's' determinants of health

- Nutrition
- Individual well-being
  - Personal care/well-being including hygiene and mental state
  - Support system
  - Alcohol and Sexual health
  - Financial comfort/means of sustenance
- Environmental influence
  - Environmental factors e.g. flooding, water/sanitation, cleanliness
  - Availability of orthodox treatment/care

1

- beneficiaries identified components of adequate nutrition such as presence of good diet, availability of food, water and absence of hunger as determinants of health.

The male and confirmatory focus groups described having food as the most important determinant of health and one beneficiary and another community leader in-depth interviewee, also mentioned food as the most important determinant of health in their household. Another in-depth interviewee identified availability of water as most important determinant. The male focus group went on to equate the absence of adequate nutrition to ill-health or disability.

2

- A All participants in focus groups and in-depth interviews mentioned aspects of personal habits which enhance the health of individuals. They included personal cleanliness, peaceful existence and taking active steps to protect ones' health.

- B family, friends, God and church support systems as main determinants of health. While one of the female beneficiaries described what could be dubbed the inevitability of ill-health, where ill-health is to be expected and cure is the only remedy.

- C lack of alcohol abuse, abstinence from sexual intercourse and use of protection during sexual intercourse as determinants of health. Since most of the participants of this study were beneficiaries of an HIV/AIDS mitigation program, it is understandable that some of their personal well-being health habits are directly related to non-compromise of the immune system hence the inclusion of the above determinants

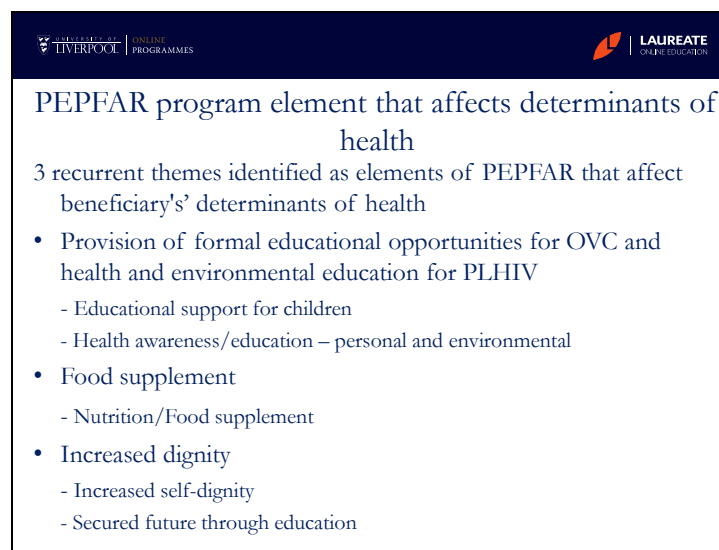
- D Interestingly, among beneficiaries all female participants of the study mentioned financial comfort or having a means of sustenance as an important determinant of health while only one male interviewee mentioned the same factor. The female focus group actually listed having an occupation and being able to fulfill ones' desires as the most important determinant of health. It was also noticed that participants who earlier described health as a state of 'having possession' or 'not having lack' were more likely to mention financial comfort or having an occupation as a

determinant of health. Participants described a state of helplessness due to individuals' inability to work which could lead to various forms of deprivation including starvation.

3

- include the influence of weather on health, presence or absence of health care infrastructure as well as water and sanitary facilities. It should be noted that availability of portable water was not overwhelmingly mentioned as a determinant by participants. However, when asked directly if water is important to an individuals' state of health, the response was always in the affirmative.

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### PEPFAR program element that affects determinants of health

3 recurrent themes identified as elements of PEPFAR that affect beneficiary's' determinants of health

- Provision of formal educational opportunities for OVC and health and environmental education for PLHIV
  - Educational support for children
  - Health awareness/education – personal and environmental
- Food supplement
  - Nutrition/Food supplement
- Increased dignity
  - Increased self-dignity
  - Secured future through education

1 -

- A - beneficiaries were outspoken about PEPFAR's support for OVC. They specifically mentioned provision of schooling materials and helping with enrolment within the formal educational sector and provision of vocational training opportunities as major factors which improve the lot of OVC within the community.

-B - Health awareness/education – personal and environmental - Most participants displayed superior knowledge of the importance of maintaining healthy personal and environmental hygiene habits

2 -

The food supplement theme details the most predominant determinant of health outlined by the participants which had been influenced by PEPFAR in their community



3 -

- A – support system - Participants explained how the presence of PEPFAR had given them a voice and made decisions they make concerning their health easier. Now regarded as people,

prior to PEPFAR they considered themselves exposed and now they had a support system which helped them recuperate.

- B – In expanding on the theme of PEPFAR increasing the self-dignity, beneficiaries explained how PEPFARs’ provision of educational opportunities improves their chances of a more secured future thereby positively influencing their health

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Difference in determinants of health (male/female)		
Thematic areas	Female	Male
Definition of health	<ul style="list-style-type: none"> <li>- Having possession/wealth</li> <li>- High standard of living</li> <li>- Absence of lack</li> </ul>	<ul style="list-style-type: none"> <li>- Preventing illness</li> <li>- Having orthodox medicine or treatment</li> </ul>
Determinants of health	<ul style="list-style-type: none"> <li>- Having occupation</li> <li>- Fulfilled desires</li> <li>- Spiritual well-being</li> <li>- Good nutrition</li> <li>- With having employment or an occupation being the most important determinant of health</li> </ul>	<ul style="list-style-type: none"> <li>- Good food/right diet</li> <li>- Lifestyle choices such as lack of alcohol abuse, abstinence</li> <li>- With good nutrition being the most important determinant of health</li> </ul>
Elements of PEPFAR program that influence determinants of health	<ul style="list-style-type: none"> <li>- Schooling support for OVC</li> </ul>	<ul style="list-style-type: none"> <li>- Support for OVC/PLHIV</li> <li>- Food supplement</li> </ul>
Possible improvements to future community programs	<ul style="list-style-type: none"> <li>- More vocational training</li> </ul>	<ul style="list-style-type: none"> <li>- Creation of work sites</li> <li>- Increased household supplements</li> </ul>

Lessons Learned: Male and female PLHIVs prioritized social determinants of health differently. Females prioritized determinants such as employment, spiritual well-being and vocational training which produce longer term psychological relief for themselves and children while men imputed more importance to determinants which remedy immediate needs such as food, increased household supplement, alcohol abuse and sexual behavior

The male focus group regarded nutrition as the most important determinant of health. While the female focus group also acknowledged the importance of nutrition as a determinant of health, they regarded spiritual well-being and fulfilled desires as equally important as nutrition. Instead females expressed that having employment was the most important determinant of health. Both focus groups regarded schooling support for OVC as the most influential element of PEPFAR on their determinants of health though males regarded the food supplement element of PEPFAR as equally important as the support provided to OVC.

Overall women seemed to attribute importance to factors which produce longer term psychological relief for themselves and families particularly children (Denton et al 2004 p.14) e.g. employment, spiritual well-being, and vocational training. Men seemed more concerned about immediate needs and physical activities such as food, increased supplements, alcohol abuse and sexual behaviour (Denton et al 2004, p.14).




**Recommendations for HIV prevention and care project planning**

- Linkage of services - link direct provision of supplements to agricultural, educational and social service sectors
- Increased work sites/markets - not be limited to salaried or self employment but also creative initiatives such as the creation of markets within communities which can shorten the process of getting a product from the producer to the consumer thus reducing its cost and market price

In outlining the new 5-year strategy for PEPFAR in 2009 Ambassador Eric Goosby expressed the need for PEPFAR to be responsive to the overall health needs faced by PLHIV, their families, and their communities in ways which link the HIV response to a diverse array of global health challenges by carefully and purposefully integrating strict HIV/AIDS programs with other general health and development programs.

HIV/AIDS mitigation interventions should contain a network of national and community level policies and programs which link direct provision of supplements to agricultural, educational and social service sectors. These programs should be tailored to the needs of the particular community and should be gender appropriate. It would be cumbersome for a single program to contain all necessary components but conscious efforts should be made to gain synergies with other social development programs. Since the consequences of HIV/AIDS stretch beyond health, remedies addressing them should stem from a collective web of services.

Most beneficiaries proposed increased provision of work sites and vocational training opportunities in areas such as sewing, carpentry, construction and bakery. Prominent suggestions among all the non-beneficiary community leaders and a number of beneficiaries centered on helping beneficiaries develop agricultural enterprises. This ranged from providing agricultural implements such as seeds or tractors; providing agricultural training such as poultry rearing; to creating markets to cut production costs and effectively market prices of agricultural goods within the community. These were cited as ventures which could provide food and gainful employment and diversify current agricultural endeavours.



Recommendations for HIV prevention and care project planning cont'd

- Transition of support service - Support services providing supplements for food and other household provisions should be designed in ways which systematically transition beneficiaries off them
- Increased efforts on educational opportunities
- Increased use and support for local CBOs/NGOs - Country-led sustainable programming, more local CBOs and NGOs should be recruited, trained and used to address their community needs
- Further research - alternative frameworks, testing themes from this study, quantitative assessments to vet the economic efficiency

1-

- A - Beneficiaries should be part of the design and implementation of this transition.

Beneficiaries should be incited to gradually transition the received support from routine needs to those of activities which increase their self-sustenance

- B – link food assistance to nutrition education and livelihood interventions

2-

- The Leadership Act calls for the need to address the particular vulnerabilities of women and girls and activities designed to focus on increasing gender equity, addressing male norms, reducing violence and sexual coercion, increasing income generation for women and girls and ensuring legal protection and property rights (OGAC, 2005 & 2006 cited in IOM 2007, p.8); no information is available to determine the impact of these activities on the individual or collective status and risks of women and girls (IOM 2007, p.8).

- Planned targeting at children and adult learners. Females should be particularly encouraged to take up these opportunities to reduce their vulnerability and increase their earning potential

3-

- Kaye and Wolff (2002) cited in IOM (2007) described a healthy community as one which continually creates and improves its physical and social environment as well as community resources to enable the mutual support of community members performing various life functions in developing to their maximum potential. In order to implement appropriate strategies which tackle HIV/AIDS within the communities, it is imperative that the community's perspectives on current and possible future interventions are examined.

- These CBOs should be adequately supported through money and skills trainings in financial management, recording keeping, project management, proposal writing and building sustainability into project and the organization. CBOs such as Reencontro can meet voids through initiatives tailored for their community and can build important buy-in through such joint planning Reencontros' leadership has with community leaders

4-

- Further research identifying the effects of PEPFAR on other stakeholders and on testing the themes from this study should be considered. Alternative theoretical frameworks, perspectives, data collection such as participatory observation and analytical methods e.g. grounded theory to enable saturation of emerging themes (Dick, 2005) and quantitative assessments should be considered to vet the economic efficiency of PEPFAR's implementation and the prospects of effectively replicating some of its successful interventions.

- Importance of piloting - "What factors determine health?" was asked as "what makes someone have good health?" or "concerning health, what makes us say that one is good or that person lives well?" It was also clear that community members did not recognize that the support program for PLHIV provided by 'Reencontro' in their community was PEPFAR funded. As a result of this discovery, 'Reencontro' was used as a proxy for 'PEPFAR program' during data collection.

'Wutomi' is the Xichangana word which synonymously means 'health' and 'life'. This study's findings seem to echo the indivisibility of health from life. Participants described health as the state of living well in accordance with social norms, being at peace with ones' neighbours and needing nothing.

This study highlights that beneficiaries actually want broad reaching interventions which address their food security, occupational and self-sustenance needs as well as provide support for their daily survival.

The findings further highlight the importance of focusing interventions on factors which promote good health as against only focusing on remedying ill-health. Lastly, it adds credence to the established notion that an epidemic such as HIV/AIDS needs to be addressed with comprehensive synergic interventions which should tie in health, environmental, agricultural and social policy makers, program implementers and community members.

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