

# The Centrality of Community Dynamics in the Socio-economic Recovery of Devastated Communities

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## ABSTRACT

**Objective:** To assess and explore the health and socio-economic outcomes of Jubilee, a community on the Caribbean island of Grenada hit by Hurricane Ivan in 2004 and to identify remaining barriers to recovery.

**Methods:** The assessment consisted of a mixed methods approach employing observations, household surveys, in-depth interviews and focus groups.

**Results:** Eighty-five per cent of the residents live in a single-family home type dwelling which is occupied by multiple families. Twenty-seven per cent of the respondents depended on a river or stream for water and 83% utilized an outdoor pit latrine. Construction accounted for 28% of the employment while 16% reported having no occupation. Public and private transportation was limited and 48% of the residents lived on less than one United States of America (US) dollar per day. Access to healthcare was reported by 89% and the prevalence of diabetes and hypertension was identified by 13% and 30% of the residents respectively. Social fragmentation within the community represents a barrier that keeps the community from developing common goals leading to full economic recovery.

**Conclusion:** Jubilee has not fully recovered from the effects of Hurricane Ivan, but progress has been made in the reconstruction effort. These efforts have addressed the most immediate and basic needs of the community, mainly utility service infrastructure and home repairs. However, issues related to the community's economic recovery are still unresolved.

# El Carácter Central de la Dinámica de la Comunidad en la Recuperación Socio-económica de las Comunidades Devastadas

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## RESUMEN

**Objetivo:** Evaluar y explorar la salud y los resultados socio-económicos de Jubilee, una comunidad de la isla caribeña de Granada, afectada por el huracán Iván en el 2004, e identificar los obstáculos que aún quedan para la recuperación.

**Métodos:** La evaluación consistió en un abordaje de métodos mezclados que empleaban la observación, encuestas domésticas, entrevistas detalladas, y grupos focales (grupos de discusión).

**Resultados:** El ochenta y cinco por ciento de los residentes viven en viviendas que son para una sola familia, pero están ocupadas por familias múltiples. El veinte por ciento de los encuestados dependían de un río o una corriente para obtener agua, y un 83% utilizaba letrinas de pozo exteriores.

La construcción daba cuenta del 28% de los empleos, en tanto que el 16% reportó no tener ocupación. Tanto el transporte público como el privado se hallaban limitados, y el 48% de los residentes vivían con menos de un dólar americano (1 USD) por día. Acceso a la atención a la salud fue reportado por 89% y la prevalencia de la diabetes y la hipertensión fue identificada por el 13% y el 30% de los residentes, respectivamente. La fragmentación social dentro de la comunidad representa un obstáculo que impide que la comunidad desarrolle metas comunes, que conduzcan a una plena recuperación económica.

**Conclusión:** Jubilee no se ha recuperado totalmente de los efectos del huracán Iván, pero ha habido progreso en los esfuerzos por la reconstrucción. Estos esfuerzos han estado dirigidos a las necesidades

*básicas y más inmediatas de la comunidad, fundamentalmente a la reparación de las casas y las infraestructuras de servicios. Sin embargo, los problemas relacionados con la recuperación económica de la comunidad siguen aún sin solución.*

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## INTRODUCTION

On September 7, 2004, Hurricane Ivan struck the Caribbean island of Grenada. With assistance from international aid and other human development organizations, such as the United States Agency for International Development (USAID) and the Pan American Health Organization (PAHO), significant sectors of Grenada have been able to recover and rebuild from this disaster. However, there are still areas and aspects of the recovery process that have yet to receive the adequate assistance and therefore, continue to prevent communities from developing strategic approaches that are comprehensive and long lasting. Such is the case of Jubilee (the name of the town was changed to protect the confidentiality of participants) where, amidst great reconstruction efforts, significant economic, social and health vulnerabilities have not been addressed. Jubilee is a village of approximately 375 people distributed in 75 households located in the Parish of St David, Grenada. The village of Jubilee entails social, economic and political experiences, which represent that of mainstream Grenada. Jubilee is nestled in a mountainous area of St David, with the majority of the population residing on the top plateau (1). The medical centre is located at the foot of the hill, approximately one mile down a steep road. However, the main hospital is in St George's, the nation's capital, 45 miles away. The size and geographical isolation makes Jubilee an excellent study site where the interplay and impact of health, social and economic pressures can be measured. Prior to the hurricane, Jubilee enjoyed a thriving nutmeg industry that employed many of the community's residents. After the hurricane, the parish of St David suffered an estimated 90% loss of all of its homes (2) and an estimated EC\$ 4 842 740 in agriculture (3). Grenada was, until then, considered the second largest exporter of nutmeg in the world (4). Lack of necessary income or adequate aid has left this community's residents straining to reconstruct their homes and lives. Predictably, these burdens have extended beyond the infrastructural realm, impacting the community's ability to move beyond the structural damage to focus on the challenges of developing new sources of sustainable economic and social uplift. The Pan American Health Organization (3), conducted a health assessment shortly after Hurricane Ivan and determined that there was an increasing need to rebuild Grenada's healthcare infrastructure and particularly, to enable isolated areas, such as Jubilee, to utilize the limited resources to which they have access.

## SUBJECTS AND METHODS

The study was approved by the St George's University Institutional Review Board and employed a mixed methods

approach for the assessment. The methods selected for this assessment followed the order in which they were implemented: observations, household surveys, in-depth interviews and focus groups. A survey developed by the Centers for Disease Control and Prevention (5) to assess the health and related socio-economic needs of communities hit by hurricanes was adapted for use in Jubilee. Participants were selected for the household survey using a stratified sampling approach. Adult members of the community expressed their permission to participate in the study via verbal consent. Interviews and focus group participants were then sourced from the participants of the household surveys. Data collection was done along themes, which informed questions on education, employment, social aspects, health, nutrition, alcohol/drug use and elderly care. The information emphasized in the focus groups included employment (barriers to employment and job skills), community issues (leadership, support/assistance, coping mechanisms and disaster preparedness) and children (education, values, drugs/alcohol prevention, sports/recreation options and child care). Collected data were complemented by available secondary data reviews. Data gathered from the survey were managed using the Epi Info statistical programme.

## RESULTS

The results are organized in two categories: First, a description of the conditions of the community, followed by its economic, social and health conditions, in which the results of the surveys, interviews and focus groups are integrated.

### *Community Conditions*

Evidence of community recovery includes the presence of freshly painted houses, new galvanized roofing as well as electric poles and plant decorations on the main road. The housing stock in Jubilee is a mix of cement one-storey structures and small wooden shacks. Dwellings across this community have an unequal distribution of damage and disrepair. Most residents (85%) live in single-family home type dwellings, which are occupied by multiple families. Within the perimeters of Jubilee, there were two convenience shops, a nursery, a church and a cooking gas distributor. Approximately 60% of the respondents reported having running water as their main source of drinking water. Twenty-seven per cent of the respondents depended on the river or stream for water. Over two-thirds of the respondents reported not treating their drinking water while the minority who treated their water added chlorine or boiled the water. Most homes

had outdoor pit latrines (83%) and the majority of residents reported doing laundry and bathing outdoors (90%).

### Economic Status

Sixteen per cent of the main breadwinners of the households surveyed had no occupation. Some of the men were able to find construction work (28%) and for the majority with only farming skills, alternative sources of income do not exist. Half of the households reported having at least one adult working outside of the home and in one quarter of them, there were two working adults. The income distribution is depicted in the Table.

Table: Income distribution data

Proportion of Surveyed Households	Reported Monthly Income (ECS)
23%	1000 and above
19%	501 – 1000
10%	251 – 500
48%	0 – 250

### Social Aspects

Social and behavioural aspects related to the quality of life of Jubilee's residents are clustered in three dimensions: family, children and youth, and community issues. Many of the families were related and lived in close proximity to each other. There were many children in Jubilee and almost all those of school age (90%) attended school. However, there were few available recreational activities which included kite making, cricket and soccer. There was no mention of recreational activities specifically available to young females. Smoking and teenage pregnancy represented the two most significant concerns about the youth as expressed by adults. The growing use of tobacco, as well as other substances by the youth in Jubilee was also an area of concern. Focussing on teen pregnancy specifically, one of the interviewees stated, "there are a lot of kids who are having sex at a really young age and girls' response to birth control is to boil green pea root and drink the tea to abort the child if they think they are pregnant".

### Health

Access to healthcare providers was reported by 89% of the surveyed households. Residents indicated that although the location of a health centre was within walking distance, the lack of transportation in the village poses a problem, especially in emergencies, as there is no ambulance. Other concerns expressed were the days and hours of operation, which were reported as "inconsistent". At an individual level, while the overall health of the surveyed residents was reported as good, survey data showed a diabetes prevalence of 13% and hypertension prevalence of 30% among the adult population.

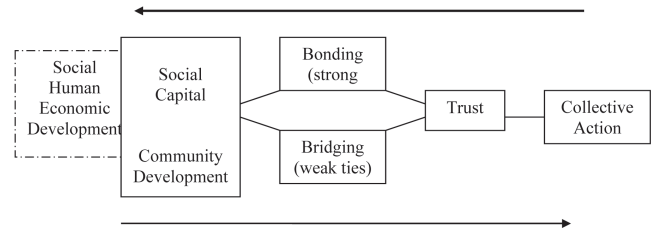


Figure: Framework for analysis of community dynamics

## DISCUSSION

Analysis of some of the economic, social and health dynamics in this community, identified through this assessment, have significant implications to the fundamental economic challenges of isolated communities. The destruction of the nutmeg infrastructure, which represented the main source of employment in this community, left most community residents unemployed. Prior to Hurricane Ivan, the employment rate in Grenada was approximately 77% with males representing around 68% of the labour force (6). While specific employment data for Jubilee prior to Hurricane Ivan is not available, the Organization of Eastern Caribbean States (OECS) in 2004 reported that approximately 30 720 persons working in the nutmeg industry in Grenada had lost their means of earning a living. Similarly, women who worked harvesting cinnamon bark and other spices in Jubilee also suffered a significant loss in their earnings with the destruction of the trees (7). These data are in line with the employment findings which showed that only 16% of the breadwinners of the households surveyed were employed, out of which 28% were working in construction. Finding alternative employment opportunities has proven to be difficult. Other significant employment barriers faced by this community were inadequate transportation, limited access to post-primary level of education, lack of information about employment opportunities, lack of specialized training, working tools and childcare. Many of the families were related and lived in close proximity to each other. These relationships were the source of basic subsistence and emotional support, especially for older residents who depend on their family members' assistance in order to meet their daily needs. The intergenerational connection within families also provided residents with a rich sense of family history and traditions.

Some significant challenges highlighted by many families were the number of female-headed households and the concomitant lack of involvement of fathers in helping to raise their children. This finding corroborated the assessment conducted by the United Nations (6) which showed Jubilee as an example of the economic impact suffered by women and heads of households who depended on agriculture for their livelihood and the livelihood of their children. The growing

use of tobacco, as well as other substances by the youth in Jubilee was in part attributed to the lack of alternative recreational activities. Focussing on teen pregnancy specifically, it was noted that birth control methods are readily available in the health clinic, but due to confidentiality concerns, adolescents refrain from requesting them.

Considering the nature of this assessment, which followed a grounded theory approach (8), the most fitting framework for discussion is drawn from concepts of social capital and community development. These two constructs share elements of social, human and economic development, which may be operationalized and measured in multiple ways. Social capital is defined as “*the institutions, the relationships, the attitudes and values that govern interactions among people and contribute to economic and social development*” (9). For the purpose of this discussion, the scope will be limited to the community’s relationships that contribute to economic and social development (10). Community development is also a term with multiple definitions. In this analysis, community development is limited to those mechanisms by which this community identifies and employs alternative income generating activities, following the devastation of the Grenadian nutmeg industry (11).

Characteristics such as bonding, trust and collective action are nurturing elements of social capital and they are pre-requisites for community development. As shown in Fig. 1, this is a dynamic process. Using this framework to explain the emerging findings from Jubilee evidences the presence, to varying degrees, of the shared elements of social capital and community development among its residents. Starting from the family unit, the study showed that family cohesiveness and support (strong ties) represent protective factors for families. These were key elements in the implementation of survival strategies and reconstruction efforts following Hurricane Ivan and continue to be the most significant source of support for the most vulnerable community members, such as the elderly. Moving the analysis from the family unit to community organizations linking groups of families into clusters, the research team identified the presence of several community organizations in which membership is dependant on the cause or purpose pursued by these organizations (*ie*, church, horticulture, political party *etc.*). Similar to the family units, these organizations are characterized by the presence of strong ties (bonding) within their respective memberships. However, an analysis of the interactions between organizations (bridging) showed that the cohesiveness existent at the family and organizational levels was absent at the community level hindering the ability of this community to properly organize towards the establishment of community goals that would result in collective action.

In Jubilee, the Community Based Management Organization (CBMO) was created to represent the various sectors and interests of the community. A significant role of these types of organizations is the coordinating and

funneling of the collective wishes of the community towards a common goal. Unfortunately, the CBMO was not fully represented by the various community organizations due to existing perceptions, among the various resident groups, that personal biases and alliances drove the aims of this organization. This charge is consistent with the assertion that strong community ties have the potential of hindering long-term community-wide development (12). One of the central aspects of community development is the presence of trust and cohesiveness among those organizations that constitute the community foundation for they provide a solid base that supports future efforts. The absence of this element helps explain the findings from this assessment, which showed that while Jubilee has made some progress in the reconstruction effort, particularly as it relates to basic structural concerns, issues related to the community’s economic recovery are still unresolved and will remain that way unless the community comes together to establish common goals through which they can begin to harness their own power and develop the ability to control their own development.

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#### REFERENCES

1. International Health Office (2004). Mental health needs assessment and skills training in Grenada and St Lucia. Dalhousie University, <http://iho.medicine.dal.ca/profiles/mh1.pdf>
2. Panamerican Health Organisation. Hurricane Ivan in the Caribbean: a comprehensive appeal for health emergency needs, September 15, 2004. <http://www.paho.org>. Accessed July 9, 2007.
3. Panamerica Health Organisation (2004). Grenada health situation analysis. <http://www.paho.org>. Accessed July 9, 2007
4. Panamerican Health Organisation (1998). Grenada: country chapter summary from health in the Americas. <http://www.paho.org>. Accessed July 9, 2007.
5. Centers for Disease Control. Whoa, Charley! (and Frances and Jeanne): Epidemiological response to Hurricanes in Florida, 2004. Case Studies in Applied Epidemiology No. 053–605; 2005.
6. Economic Commission for Latin America and the Caribbean (ECLAC) [2005]. Grenada a gender impact assessment of Hurricane Ivan making the invisible visible. United Nations Development Fund for Women; United Nations Development Programme. June 29, 2005.
7. Organization of Eastern Caribbean States (2004). Grenada: Macro-Socio-economic assessment of the damages.
8. Pandit NR. The creation of theory: a recent application of the grounded theory method. The qualitative report December 1996; 2: <http://nova.edu/sss/QR/QR2-4/pandit.html>.
9. World Bank. The initiative on defining, monitoring and measuring social capital: overview and program description. Washington DC: World Bank (Social Development Family); 1988.

10. Schuller T. Reflections of the use of social capital. Organization for economic cooperation and development (OECD), France. review of social economy. March 2007, LXV (1):11–28.
11. Laing G, Hepburn M. Working with retrenched timber workers and impacted communities: use of a community development approach. Rural social work and community practice. December 2006; 11:18–29.
12. Johannisson B, Olaison L. The moment of truth: reconstructing entrepreneurship and social capital in the eye of the storm. Review of social economy. March 2007; LXV (1): 55–78.