

**Evaluating Retention and Capacity Building in Guyana's Surgical Post-Graduate Training Program**

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## **Abstract**

In regions of the world that experience a deficit of surgical care, educational initiatives can foster the development of a skilled surgical workforce. Implicit in training these health workers is the mandate to retain them in the country in order build capacity. Eyal's framework presents ways in which locally relevant training can improve retention and outlines the ethical and pragmatic concerns of such initiatives. In 2006, Guyana established it's first surgical training program, an example of locally relevant training. The University of Guyana Diploma of Surgery (UGDS) program was selected for this case study research. Consistent data collection, supported by a systemic procedure to analyze that data, is paramount to increase the effectiveness of the UGDS program. The purposes of this dissertation research were two-fold. Firstly, it sought to understand how the UGDS program influences retention and the ways in which the UGDS members contribute to capacity building and the program's sustainability. Secondly, this program evaluation provides a useful context to inform Eyal's framework. 8 graduates, 2 trainees, 4 faculty members and 2 persons identified as policy makers were interviewed. Interviews were conducted face to face, and then transcribed. Surveys were administered to graduates and trainees and reflective reports and presentations were coded and analyzed. Overall, the data mapped fairly well onto Eyal's framework. The results of the study suggest that the benefits and concerns Eyal outlines would be better represented along a continuum rather than being classified as either advantageous or disadvantageous with respect to retention. While Eyal's claims generalize across settings, he should acknowledge this limitation and consider the important role that context plays. Overall,

the results suggest that the UGDS program has positively influenced retention and capacity building. Key recommendations were made to the UGDS program that aim to improve retention and capacity building. As regions continue to face challenges associated with providing adequate surgical care, fostering retention and capacity building is recommended so that a sustainable surgical workforce can meet surgical needs.

*Keywords: Case study, medical education, program evaluation*

## **Glossary of Acronyms**

CAGS –Canadian Association of General Surgeons

IMG –International Medical Graduates

LMIC –Low and Middle Income Country

UGDS –University of Guyana Diploma of Surgery

WHO –World Health Organization



## **1.0 Introduction**

### **1.1 Global Surgery**

Surgical care is a critical component of all effective health care systems. Worldwide, there are significant disparities in surgical care with an enormous deficit existing in the rural and remote parts of low- and middle-income countries (Ozgediz, 2008). Debas (2006) defines a surgical disease as any condition that requires suture, incision, excisions, manipulation or other invasive procedure that usually, but not always requires local, regional or general anesthesia. Surgical diseases rank among the top 15 causes of disability and account for up to 15% of total disability adjusted life years lost worldwide (Farmer, 2008). Although it is difficult to establish epidemiologically the exact burden of surgical disease (Bickler, 2008), it is known that surgically treatable conditions - such as cataracts (Javitt, 1993), obstructed labor (Neilson et al., 2003), symptomatic hernias (Olumide, Adedeji, & Adesola, 1976; Rahman & Mungadi, 2000), osteomyelitis (Bickler & Rode, 2002; Hilton, 2003), otitis media (Smith & Hatcher, 1992; Whitney & Pickering, 2002), and a variety of inflammatory conditions - add a chronic burden of poor health to already disadvantaged populations (Debas, 2006). These conditions that are easily treatable but potentially fatal exist with a high prevalence in the poorer parts of the world (Mungadi, 2000). Over time, these conditions compound to further diminish economic productivity and quality of life in these countries.

In general, global surgery is challenged by facilities that are scarce, understaffed, maintained poorly, and outfitted with inadequate drugs, supplies, and equipment

(Ateiyeh, 2010). Yet, despite the potential for positive impact, surgery has received little support on the global health agenda. Historically, international aid agencies have focused on combatting infectious diseases and encouraging public health models that emphasize the prevention of illness and disability, rather than the promotion of remedial measures such as surgery. On this point, Debas (2006) argued astutely that irrespective of the success of preventative strategies, surgical conditions will always account for a significant portion of disease, and are thus worthy of investment. In this regard, global health researchers have endeavored to explore ways that surgery in low-middle income countries and remote areas can achieve successful outcomes in spite of the numerous limitations (Atiyeh, 2010). The World Health Organization has established a clinical procedures unit, which has demonstrated that a large volume of surgical tasks can be safely and effectively performed at the district hospital level with simple, low-cost and low-maintenance equipment. Also, task shifting in surgery has been explored as a way to establish surgical units in low-middle income countries and remote areas. Task shifting involves training non-physician clinicians in essential surgical procedures so that patients can receive common surgical emergencies, complex birthing, anesthetic and simple surgical procedures without travelling to major hospital centres. However, there are some ethical concerns regarding the impact of this practice on quality of care and global health inequity (Atiyeh, 2010). Perhaps most commonly, the majority of specialists that come to regions lacking surgeons do so through bilateral arrangements with other countries on short-term contracts. These short-term surgical outreach programs enable sophisticated procedures to be performed in a high-volume and cost-effective manner (Atiyeh 2010),

but have been criticized for their inability to handle common post-operative complications and infections appropriately (Montgomery, 1993). These adverse outcomes have been known to lead entire communities and regions to fear doctors and surgery irrationally (Wolfberg, 2006). More importantly, however, these surgical missions undermine the local health care system by encouraging dependence on visiting practitioners and do little to build local capacity.

## **1.2 Education in Low Resource Settings**

When one considers the pitfalls of each of the above approaches to addressing the deficits in global surgery, it is clear that long-term initiatives that build sustainable surgical capacity within the low- to middle-income countries are the better alternatives to improvement. Indeed, the World Health Organization advocates for long-term investments that enable low-and middle-income countries to '*scale-up*' health professional education and training (WHO, 2004), including the establishment of in-country and regional specialist training (Connell, 2004) in developing countries (Oman, 2009). Adequate training produces health workers that are capable of providing effective, safe, quality health interventions (WHO, 2004), helps balance the distribution of health professionals across regions, and contributes to improved health systems through the necessary strategic, political, oversight, coalition-building, regulation and incentive, system-design, and accountability corollaries that accompany education programming (WHO, 2004). Increasing the number of physicians has benefits that extend beyond improved access to care. In fact, the literature indicates that increasing the physician-to-

population ratio is directly linked to lower mortality (Starfield, 2005). Ultimately, training health workers is key to strengthening a country's health system, which in turn improves health outcomes (Ozgediz, 2008; Bickler & Spiegler, 2008).

There is consensus in the literature that the highest impact programs for increasing surgical capacity are based on strong collaborative academic partnerships that are locally accountable, understand the local environment, are based on locally-relevant curricula, and include substantial involvement from local partners (Deckelbaum, 2011; Riviello, 2010; Ozgediz, 2008). These collaborative academic partnerships are usually referred to as '*twinning*' programs. A twinning partnership involves two or more academic institutions or community organizations that share collective knowledge and resources (Busse, 2013). The concept encourages partnerships between university institutions in high-income countries and resource-challenged institutions in lower- and middle-income countries (Rivello, 2010). These partnerships strive to build the capacity of the low resource hospital and staff by teaching simple surgical procedures that will gradually lead to more highly specialized surgical subspecialties (Haglund, 2011).

Of relevance to the current thesis, one of the benefits of these partnerships is that they offset the challenges faced by surgeons with respect to teaching. In many instances, local surgeons are too few and too busy to teach.

For successful partnerships, Rivello (2010) recommends having a strong advocate

on each side of the partnership that is “*capable and culturally sensitive, and who demonstrates sustained commitment*” (Rivello, 2010, p. 463). This promotes relationships that are built on mutual trust and respect, and that demonstrate reciprocity of learning. Members from “*developed countries offer technical expertise: clinical skills, research skills, and educational skills*” and “*host colleagues provide contextual expertise, essential for long-term impact: an understanding of local burden of disease, local perception of illness, and the complexities of societal and cultural organization*” (Rivello, 2010, p.463). In this way, the lessons learned from working overseas with vulnerable populations may be translated back to high-income countries (i.e., Canada, USA) where sample populations may also face disparities in access to surgical care. Furthermore, clinical rotations in resource-limited settings can serve as valuable educational experiences for medical students and surgical residents from high-resource countries.

Research that seeks to improve the success of these partnerships is vital to engaging multidisciplinary stakeholders (i.e., nursing, anesthesia, surgery) and ensuring the sustainability of these efforts. To date, few studies have been published about partnerships for postgraduate specialist training in developing countries. A cursory literature search (PubMed, MEDLINE, Google Scholar) identified surgical education programs in Eritrea, Papua New Guinea, Guyana, Sierra Leone, Ethiopia, Uganda and Botswana in partnership with various North American institutions (Calisti, 2011; Cameron, 2008; Alem, 2010; Cadotte, 2010; Haglund, 2011; Lipnick 2010; Ozgediz, 2008; Kushner, 2010; Mutabdzic, 2013). Each of these manuscripts focused primarily on

the implementation, design, and challenges with establishing and sustaining these partnerships.

### **1.3 Brain Drain and Retention**

Increasing the number and quality of health workers in low- to middle-income countries is greatly challenged by the migration of trained professionals from these developing countries to high-income nations. This phenomenon is popularly referred to as physician *brain drain*. In the developed world, in order to address shortages of healthcare workers, institutions have adopted a neutral stance towards international medical graduate (IMG) entry and aim to facilitate the integration of IMGs through adequate support and training. However, this reliance on foreign trained doctors exaggerates the brain drain prevalent in many low-income countries. In 2010 the WHO Global Code of Practice adopted the International Recruitment of Health Personnel (WHO, 2014). The Code is a multilateral framework for tackling shortages in the global health workforce and addressing challenges associated with the international mobility of health workers. The Code states that all individuals, including health workers, have the right to migrate from one country to another in search of employment. In light of this being morally questionable, ethical recruitment policies have been established. As well, many institutions have stopped recruiting health personnel from countries facing critical shortages in the health workforce.

The emigration of health workers from low-income countries is linked to their

systemic structural, political, and economic problems. Studies highlight that key professional reasons for emigration include poor remuneration and job dissatisfaction, poor facilities and working conditions, poor intellectual stimulation, stress, heavy workloads, and unfair practices with regards to promotion (Eyal 2008; Oman, 2008). The literature also cites personal reasons for emigration, including the threat of violence, political instability, concerns about family welfare, discrimination, and poor living conditions (Eyal, 2008). In this way, migrant physicians are drawn to wealthier recipient countries by the opportunities for career growth, the potential of advanced training, and an improved feeling of security for self and family. Unfortunately, the emigration of health workers has negative adverse effects in low-income countries, which only widen existing health inequities (Eyal, 2008). Furthermore, the loss of these health workers places a financial strain on source countries and the institutions that have invested their time, money, and limited resources on their training.

#### **1.4 Eyal's Framework: The Concept of Locally-Relevant Training**

From an economic perspective, retention is an important return on investment of the time and resources required to train these health professionals. Many countries have incorporated a variety of incentives and regulations to influence physicians' choice of practice location. Common strategies include demanding compensation from departing professionals, delaying their departure through compulsory service, increasing salaries in the public health sector and providing housing benefits or educational benefits for their children. In order to improve the retention of workers in low-income countries, Eyal

(2008) advocates for educational reforms that provide locally relevant training that are focused on local diseases, adapt to the available resources in a given setting, and have rotations set in rural areas. Eyal suggests that increasing training opportunities in these regions could diminish medical brain drain in five ways. It would (i) make graduates less attractive for Western employers, (ii) align graduates' expectations with actual practice, diminishing 'burn-out', (iii) enhance the professional prestige of local practice, (iv) hold rotations in, and recruit applicants from, rural areas, which is known to improve retention there, and (v) create local career development options that attract practitioners to stay. However, Eyal cautions that locally relevant training and incentives to retain trainees may contribute to poor quality of care or be perceived as unethical by breaching freedom of education or breaching freedom of movement. Eyal discusses the potential for hypocrisy should Western partners fail to correct their harmful recruitment practices, while supporting locally relevant training intended to mitigate the migration of health workers. As well, Eyal discusses unequal opportunities among students in which poorer students are obliged to pursue locally relevant training unlike their richer counterparts who can afford private, Westernized education. He discusses a lack of support for the reform from key players stemming from concern over compromised quality of care or concern about their own positions being compromised, as a result of implementing locally relevant training. These ten factors –the five potential benefits and the five potential concerns associated with locally relevant training comprise the basis of Eyal's framework for locally relevant training as a way to stem brain drain. These facets can be delineated as being either pragmatic or ethical in nature. A summary of Eyal's framework



is provided in **Table 1**.

**Table 1. Eyal's Framework for Retention**

<i>Overview of Eyal's Framework</i>	
<b><u>Benefits</u></b>	<b><u>Concerns</u></b>
Diminishes Burnout	Freedom of Education; Freedom of Movement
Enhance Prestige	Support for the Program
Rotations and Recruitment in Rural Areas ↑ Likelihood of Retention there	Unequal Opportunities Among Students
Local Career Development Options	Hypocrisy
Relevance of Skills	Quality of Care

### **1.5 The University of Guyana Surgical Diploma Program**

Eyal's (2008) suggestions about locally relevant training serve as a useful framework to evaluate global educational programs aimed at improving retention. However, the evidence in support of Eyal's framework is lacking. In this study, Eyal's framework is challenged and its utility and comprehensiveness to explain the context of the University of Guyana Surgical Diploma (UGDS) Program is explored.

Guyana is a lower-middle income country in the Latin America and Caribbean region. In 2010 the population was estimated at 784,894, concentrated mainly along the

coastline with a sparsely populated interior. The population is projected to reach 814,605 by 2020 (Bureau of Statistics), with a growing demographic of persons over 65 years old. By virtue of its roots as a British colony, Guyana is an English-speaking country and has a considerably multiracial population with 43.45% Indo-Guyanese, 30.20% Afro-Guyanese, 9.16% Amerindian, and 16.73% of people being of "mixed heritage" (WHO, 2009). The country's Gross National Income stands at \$990 per capita and 35% of the population lives below the poverty line (WHO, 2009). In 2014, Guyana ranked 121 out of 187 on the Human Development Index—a combined measure of income, education and health (UNDP, 2014). Political and economic instability, conflict, crime, violence, and poverty have hindered the country's economic growth and development (PAHO, 2009), which in turn has negatively affected Guyana's health system and the country's health status. Currently, life expectancy in Guyana is 67 years of age (compared to 79 years in Canada) and the maternal mortality has continued to decline, currently standing at 46 times higher than in Canada. However, the country has made considerable progress in achieving most of its 2015 *Millennium Development Goal* health targets (MOH, 2012) which highlight Guyana's concerted efforts to strengthen health systems and reduce disease burden (MOH, 2012). While communicable diseases present challenges to the health status of the population, the focus of health policy and resource allocation is increasingly shifting towards non-communicable diseases, which account for Guyana's highest burden of mortality and morbidity. Priority areas include reducing the physiological consequences and mortality associated with accidents, injuries, and

violence and reducing pregnancy related complications, all of which can be improved through enhanced surgical training (WHO, 2007).

The country is divided into 10 administrative regions and the local government structure consists of 10 Regional Democratic Councils, 65 Neighborhood Democratic Councils, six municipalities and 76 Amerindian Village Councils (PAHO 2009). The Regional Democratic Councils oversee healthcare delivery within their boundaries (WHO, 2007). Health care in the private sector functions independently, but is regulated by the Health Facilities Licensing Regulation (2008), which establishes standards of care and practices (PAHO, 2009). In the public sector, the delivery of health services is provided at five different levels (National Development Strategy, 1996). The first level of contact consists of local health posts staffed by community health workers that provide health education, preventative care, and handle common diseases (WHO, 2007; National Development Strategy, 1996). The second level consists of health centres that provide preventive and rehabilitative care as well as health promotional activities. These are usually staffed with a medical extension worker or public health nurse, a nursing assistant, a dental nurse and a midwife (WHO, 2007). In the third tier, 18 District Hospitals provide inpatient and outpatient care and some diagnostic services. These hospitals are designed to serve geographical areas with populations of 10,000 or more and have basic radiological and laboratory services as well as dental care facilities (National Development Strategy, 1996). At the fourth level are the four Regional Hospitals, in the Linden, New Amsterdam, West Demerara, and Suddie regions. When patients require a

wider range of diagnostic and specialist services, patients are transferred to the fifth level of care, which includes the National Referral Hospital - Georgetown Public Hospital Corporation in the capital, Georgetown. The five-tier system works in an upward referral fashion, meaning a patient would not ordinarily go directly to the District or National Hospital without first being examined at the Local Health Posts (National Development Strategy, 1996). However, the WHO reports that the regional hospitals in urban (and semi-urban) settings are over-utilized, while primary care and district facilities are neglected (WHO, 2007). In many instances, hospitals are unable to perform even basic emergency surgical procedures, mainly due to lack of continuous oxygen supply and anesthesia equipment (WHO, 2007), which complicates the referral of patients, especially in urgent situations (WHO, 2007).

While Guyana's constitution recognizes access to healthcare as a fundamental human right, 12.5% of Guyana's population has difficulty accessing health care (WHO, 2007). This number reflects primarily those that live in the Guyanese interior, which combines a large geographical area, dispersed population, and a lack of healthcare workers (WHO, 2007). Guyana's interior is relatively disadvantaged in terms of poverty, access to goods and services, health infrastructure, employment opportunities, and income levels, which complicates access, delivery, and monitoring of these health services. Community health workers are often the only type of health care provider serving these remote populations. In order to improve health outcomes, it is imperative for Guyana's government and health ministry to target and reduce gaps in the current

healthcare system. The 2008 – 2012 health planning cycle was guided by the National Health Sector Strategy and, building on this, Health Vision 2020 is a strategy for system strengthening, meeting the *Millennium Development Goals*, and establishing an agenda for Guyana in improved health services delivery after these goals are achieved (MOH, 2012). Specifically, Health Vision 2020 focuses on health governance and leadership, human resources for health, health financing, the quality and availability of health information, drugs and medical supplies, service delivery, strategic partnerships, health across the human life course, non-communicable and communicable diseases, environmental health, food security, and nutrition and health promotion.

In 2010, the Ministry created an action plan for strengthening health human resources in Guyana for the five years spanning 2011 to 2016. This action plan addresses the key challenges to human resources for health including urbanization, high attrition rates, brain drain migration, vacancies and deficiencies in technical and clinical skills, and weaknesses in human resource information systems (MOH, 2012). To date, this action plan has succeeded in increasing the supply of trained health workers through its health science education programming. In particular, training programmes exist under Guyana Public Hospital Corporation (GPHC) and the University of Guyana. Furthermore, there is also an established program for recruiting Cuban doctors and for physician training in Cuba (MOH, 2012). In spite of these efforts, there is a continuing need for improved training methodologies and modalities to safeguard quality and ensure specialist skills are available. Of all the strategic objectives, this paper will focus on those centered on

strengthening the skilled workforce, examining particularly how Guyana is dealing with the shortage of specialists in the healthcare field.

Prior to 2006 there were no local postgraduate training programs in Guyana. Those interested in surgery left the country for an overseas surgical qualification, with very few subsequently returning to Guyana (Cameron, 2010). In 2006, Guyana's first surgical postgraduate training program was established on the foundation of a strong partnership between Guyanese surgeons and the Canadian Association of General Surgeons (CAGS). The 2.5-year program involves clinical rotations and structured tutorial modules conducted by Guyanese and visiting Canadian surgical faculty members recruited by the CAGS International Surgery Committee. A final written and oral exam is completed after two years, with external examiners from CAGS and the Caribbean. Trainees spend the next six months working independently in a regional hospital, mentored by Georgetown Public Hospital Corporation (GPHC) staff and visiting CAGS surgeons. This training aims to prepare surgeons to meet the general surgery needs in the regional and district hospitals of Guyana and to increase the capacity for service within the surgery department. The program appears to have played a key role reducing the number of emigrating medical professionals. As of 2013, 14 residents have graduated from the program and 11 of these graduates remain in Guyana.

## **1.6 Research Questions**

The UGDS surgical education program is an example of locally relevant training program and can serve as a useful lens for an exploration and critique of Eyal's work. Eyal (2008) has indicated that he welcomes careful, creative thoughts on how to make the strategies he proposes more workable. This thesis project represents an effort to do so. A byproduct of this thesis project is that it aims to generate good evidence to show how the educational aims and objectives of the UGDS program with regards to retention and capacity building are being met. The role of CAGS with respect to the University of Guyana Diploma of Surgery (UGDS) program is changing. The local University of Guyana training program continues with local direction by local faculty, while the CAGS partnership is increasingly focused on developing Canadian fellowship training opportunities in surgical subspecialties (Cameron, 2010). This moment of transition is an ideal time for a summative evaluation of the program. The evaluation will provide sound evidence upon which conclusions can be based for the purposes of decision-making and accountability to funders and stakeholders. After several years of the program's existence, an evaluation is also necessary to demonstrate the program's effectiveness and to identify problems and opportunities. A sophisticated understanding of the UGDS program gained through program evaluation will contribute to its ongoing development by addressing problems and building on strengths and opportunities. As well, this work will provide the necessary foundation for ongoing program evaluation. In particular the evaluation will research two major questions associated with the UGDS's impact on retention:

1. *“What influence – positive and negative, intended or otherwise - does the UGDS Program have with respect to the retention of trainees?”* This question considers retention as it pertains to trainees’ future professional practice in Guyana.
2. *“How do members of the UGDS program contribute to capacity building and the self-sustainability of the program?”* This question considers retention as it pertains to trainees’ future professional practice within the UGDS program.

## **2.0 Methods**

### **2.1 Rationale for Qualitative Methods**

Qualitative methodologies allow researchers to explore phenomenon, such as feelings or thought processes that are otherwise difficult to study through conventional research methods (Strauss & Corbin, 1998). This is useful for the present study in which the perceptions and lived experiences (Jones, Torres, & Arminio, 2006) of the participants of the UGDS in Guyana are explored. This evaluation lends well to a qualitative inquiry because it is focused on understanding the views of participants and how they interpret their experiences (Stake, 1995). Qualitative research questions often begin with “how” or “what”, which enables the researcher to gain an in-depth understanding of what is going on relative to the topic (Patton, 2002; Seidman, 1991). Furthermore, qualitative research methods are the best approach when studying phenomena in their natural settings (Denzin & Lincoln, 2003) and when striving to understand situations in their uniqueness as part of a particular context (Merriam, 2002).



In this form of naturalistic inquiry, the research takes place in real world settings and the researcher does not attempt to manipulate the phenomenon of interest (Patton, 2002). The current study focused on UGDS members' experiences and views towards retention and capacity building as it pertains to the surgical program, within the unique context of Guyana. Specifically, this inquiry qualifies as a Program Evaluation, which is defined as the systematic collection of information about the activities, characteristics, and outcomes of programs to make judgments about the program, improve program effectiveness, and /or inform decisions about future programming (Patton, 2002). Qualitative methods are useful in program evaluations because they provide rich insight through participants' stories. Patton explains, "*Qualitative findings in evaluation illuminate the people behind the numbers and put faces on the statistics.....to deepen understanding*" (Patton, 2002, p.10). In the present case, a constant comparative approach (Glaser & Strauss, 1967) was used to analyze the stories, experiences, and perceptions of the program participants in a way that helps us understand why students participated in the program and what they did/will do afterward. Lastly, qualitative methods emphasize the researcher's role as active participants in the study (Creswell, 2005; Stake, 1995). While the researcher role has shortcomings and biases that might have an impact on the study, the strength of a qualitative approach is that the researcher has direct contact with the people, situations, and phenomena under study (Patton, 2002). In this way, the researcher's personal experience and insights are important parts of the inquiry and critical to understanding the phenomenon. This makes the thesis project particularly rewarding.

## **2.2 Philosophical Foundations**

The essential elements of any such research endeavor include an ontological and epistemological perspective, a methodological approach, methods, and sources of data (Hay, 2002). This section defines and discusses each of these components in relation to this study. The interrelationship between ontology (i.e., what is out there to know about), epistemology (i.e., how can we know about it), and the methodological approach (i.e., how to go about acquiring) is central to social research. It is worth understanding, acknowledging, and defending these components because of the tremendous role they play dictating the research process and research design.

### **2.2.1 Ontological Perspectives**

Ontological assumptions are concerned about the nature of reality (Grix, 2002). Blaikie defines ontology as “*claims and assumptions that are made about the nature of social reality, claims about what exists, what it looks like, what units make it up and how these units interact with each other*” (Blaikie, 2000, p. 8). In this study, the ontological research position is rooted in constructivism. While objectivism asserts that there is an objective reality, constructivism suggests that different people build meaning in different ways, even when experiencing the same event (Crotty, 1998). It implies that social phenomena and categories are not only produced through social interaction but they are in a constant state of revision. Crotty (1998) identified several assumptions of constructivism, three of which are fundamental to this study:

- a) Human beings construct meaning as they engage with the world they are interpreting. In light of this, qualitative researchers tend to use broad and general

questions, so that the participants can share their views;

- b) Humans engage with their world and make sense of it based on their historical and social perspectives. Thus it is important that researchers seek to understand the context of the participants and visit this context personally to gather information;
- c) The basic generation of meaning is always social, arising in and out of interaction with a human community and the process of qualitative research is largely inductive.

Constructivism is useful as the philosophical framework for this program evaluation because it is expected that different stakeholders involved in the program (e.g., faculty, graduates, learners, administrators, policy makers) will have different experiences and perceptions of the program, all of which deserve attention and all of which are experienced as real (Patton, 2002). Evaluators could compare varying perceptions and interpret the implications of different perceptions on the attainment of stated program goals. However, they would not value certain perceptions as more real or meaningful (Patton, 2002). This dissertation's research is based on the interpretations of those who have been involved substantially with the surgical training program in Guyana. Of particular interest are the ways learners and faculty members make meaning of the program's effect on retention within the public sector in Guyana. As well, the study seeks to understand views about the sustainability of the program and how the involvement of the participants influences capacity building. The participants construct reality based on their individual and shared experiences. How they engage within the program and make

decisions is complex, and this reflects the constructivist perspective.

### **2.2.2 Epistemological Perspectives**

Two contrasting epistemological positions are those contained within the perspectives ‘*positivism*’ and ‘*interpretivism*’ (Gail, 2000). Positivism is an epistemological position that advocates the application of methods of the natural sciences to the study of social reality (Gail, 2000), while interpretivism is rooted in the view that “*a strategy is required that respects the differences between people and the objects of the natural sciences and therefore requires the social scientist to grasp the subjective meaning of social action*” (Bryman, 2001, pp. 12–13). In terms of this analysis, the interpretive theoretical perspective provided the appropriate framework for understanding the ways that administrators, faculty, graduates and learners interpreted and made meaning of the program’s influence on capacity building and retention of surgical trainees in Guyana’s public health sector. The interpretive tradition asserts that researchers should begin by immersing themselves in the world of those they wish to study. Researchers examine the context through actions and inquiry, and avoid making assumptions and drawing on theory at the outset (Esterberg, 2002). The basic interpretive study is grounded in the assumption that the researcher is interested in understanding how participants make meaning of a situation or phenomenon. Specifically, understanding how individuals in the world construct and interpret reality should constitute the primary emphasis (Gubrium & Holstein, 1997). This understanding is mediated through the researcher-as-instrument. The strategy is inductive, and the outcome is descriptive

(Merriam, 2002).

Constructivist and interpretive approaches concede that all social reality is constructed, created, or modified by all of the involved individuals. In keeping with this view, the constructivist paradigm was used to examine and understand key players' perceptions and experiences with retention and capacity building in the surgical program. Constructivist researchers focus on understanding and reconstructing the meanings that individuals hold about the phenomenon being studied (Gubrium & Holstein, 1997; Jones, 2002) by examining their lived experiences (Jones, Torres, & Arminio, 2006) through use of open-ended questions (Crotty, 1998). Thus, for this study, in-depth interviews with key informants were conducted, relevant documents were reviewed, surveys administered, and data was analyzed in an attempt to construct meaning of participants' perceptions and experiences of retention and capacity building as it pertains to Guyana's surgical training program.

### **2.2.3 Methodological Approach**

Creswell (2002) distinguishes between five qualitative traditions of inquiry: biography, phenomenology, grounded theory, ethnography, and case study. Research methods specify unique ways of collecting and analyzing empirical evidence, following logic and specific procedures, and each tradition of qualitative inquiry offers a different emphasis, framework or focus, and has inherent advantages and disadvantages, which must be acknowledged. Choosing the optimal research method depends on the type of research question posed, the extent of control a researcher has over actual behavioral

events, and the degree of focus on contemporary as opposed to entirely historical events. The research tradition selected for this study is an *exploratory instrumental single case study design*, as described by Yin (2003).

The case study approach is appropriate when:

1. The focus of the study is to answer “how” and “why” questions;
2. The behaviour of those involved in the study cannot be manipulated;
3. The contextual conditions are believed to be relevant to the phenomenon under study (Yin, 2003).

This program evaluation satisfies all these criteria, making the case study approach highly appropriate.

There are many well-known case study researchers, the most prominent of whom include Robert K. Yin, Robert E. Stake, and Sharon B. Merriam, all of whom have written extensively about case study research, and have provided valuable insights and techniques for successfully engaging in such research. This thesis relies primarily on the case study as described by Yin (2003). According to Yin (2003), opting to use a case study design depends on the exploratory ‘*what*’ and ‘*how*’ research questions being asked. A second component of case study research design is to define the study propositions, specifically, the rationale that underlies the exploratory case study. This component is most commonly recognized as the purpose statement. The purpose of this case study was to understand the experiences and perspectives of members of the UGDS

program with regards to retention and capacity building. In this instance, the research is also used to refine Eyal's theories regarding locally relevant training. Furthermore, the findings will be used for decision-making and program improvement. In a broad sense, this research will inform a deeper understanding of best practices for surgical education in low resource settings.

The third component of the case study research design is the determination of the unit of analysis, which in the current context, is the academic experiences of the UGDS participants. The case is bounded by program (i.e., only those with a connection to the UGDS), by geographical location (i.e., Guyana) and by experience (i.e., academic, teaching, or leadership experience in the UGDS program). Bounding the case in these ways helps to determine the scope of the data collection and will distinguish data about the case study phenomenon from the external context. A fourth component of case study research design is to connect data to propositions. This connection is made as themes emerge from data collection. As data is analyzed, the researcher attempts to match patterns that appear in the data to the theoretical propositions of the case study; in this instance to Eyal's framework. The fifth and related component of case study design is the criteria for interpreting findings. Commonly, the case study researcher codes the data prior to developing themes (Yin, 2003). Following the theme development stage, recommendations for practice and future research were determined from the findings.

#### **2.2.4 Methods**

*Rationale:* The literature points to the importance of involving stakeholders throughout the evaluation process. Cook (2010) recommends that evaluators seek the input of key stakeholders when planning a program evaluation. The World Federation of Medical Education also states that, *“trainers and trainees should be actively involved in planning program evaluation and in using its results for program development”* (WFME, 2003). On these grounds we conducted a brief pilot inquiry in which a single, unstructured question *“What are 3-5 questions you would like this evaluation to answer?”* was sent by e-mail to the 14 graduates, and those involved with teaching in the UGDS program, including program administrators, local faculty members, and CAGS surgeons who had visited Guyana more than once within the last few years. There were 9 respondents (3 graduates, 2 local faculty members, and 4 visiting surgeons). Responses were grouped thematically according to a framework for sustainable capacity building through education retrieved from the literature. While there were comments in every category- there was respondent consensus that retention as it pertains to surgical practice in Guyana and the capacity building of the UGDS Program were the most meaningful areas for exploration.

*Research Site:* The main context of this study is the University of Guyana where the surgical training program is delivered. As well, the context includes GPHC and the five regional hospitals in Linden, Suddie, West Demerara, New Amsterdam, and Lethem that serve as the main sites for training and practice. There is an ongoing collaboration with the University of Guyana, McMaster University, and CAGS.



*Participants:* Purposeful sampling (Patton, 2002) was used to select the UGDS members for personal interviews. The Kellogg Foundation defines a stakeholder as any person or group who has an interest in the project being evaluated or in the results of the evaluation (Kellogg Foundation, 2004). By this definition, the stakeholders for the UGDS Program include local faculty members, current trainees, individuals who have graduated or withdrawn from the program, program administrators, the Ministry of Health and other policy making entities, and the evaluators themselves. Of these stakeholders, the learners, faculty members, and policy makers were included as key participants for data collection (Patton, 2002). An administrative assistant approached 26 prospective participants with ties to the UGDS program on behalf of Medical Director of the Program. Eighteen individuals responded to schedule interviews. 2 participants were unable to coordinate a mutually convenient time and consequently, they withdrew their participation. Interviews were conducted with 8 graduates and 2 trainees, 4 faculty members and 2 persons identified as policy makers. Initially, faculty members were limited to those in surgery. However, the selection criteria were modified as insight was gleaned regarding the contributions of senior staff from other faculties to the UGDS program, particularly when the surgical trainees completed different rotations. Overall, these informants were selected because their specific experiences and perspectives can inform a deeper understanding of retention and capacity building associated with the Program. As well, involving multiple stakeholders ensured that the information gathered is reliable and comes from diverse perspectives (Kellogg, 2004) and helps to ensure converging lines of

inquiry. Verbal consent was obtained at the outset, after reading a script outlining the risks and voluntary nature of their participation in the research.

*Interview Scripts and Survey:* The interview scripts were built on the bases of the components of Eyal's framework and, accordingly, posed a series of questions to respondents that were concerned with Prestige, Freedom of Movement, etc. These scripts were constructed specifically for each respondent group (**Appendix B C, and D**). These scripts formed the bases for semi-structured interviews that explored the experiences and perspectives of learners in the UGDS Program and those factors that influence their decision to remain in Guyana, specifically within the public sector. As well, the evaluation explored the wider implications of using strategies to promote retention among graduates using Eyal's framework as a guide.

Data on gender, age, hometown, marital status, family composition, educational attainment, and a general listing of the places in Guyana in which the graduates have previously worked, trained and lived were obtained in a survey administered to all graduates and trainees. The survey indicates the mean age of graduates and learners was 35 years old and all the participants were male. This demographic information is summarized in Table 2.

The survey questions were incorporated within the interview guide and mainly served to encourage discussion. All of the questions that were posed to participants were based off of Eyal's framework. This was useful to identify factors that may influence the intent of these graduates to remain in Guyana's regional hospitals.

**Table 2. Participant Demographics**

<b>ID#</b>	<b>Age</b>	<b>Sex</b>	<b>Hometown</b>	<b>Year of Graduation</b>
G01	37	M	Urban	2008
G02	34	M	Urban	2009
G03	39	M	Urban	2008
G04	33	M	Urban	2011
G05	36	M	Urban	2009
G06	34	M	Urban	2010
G07	39	M	Urban	2008
G08	*	M	Rural	2008
T01	*	M	Rural	2015
T02	30	M	Urban	2015

*Ethical Considerations:* Ethics approval was not justified given the scope of this project. However, the potential risks that were identified included the participants potentially feeling uncomfortable answering certain questions. In order to ensure anonymity, names and identifying information were removed from the transcripts. The participants were given a code corresponding to their affiliation with the UGDS program. (F corresponding to faculty, T to trainees, G to graduates and P to policy makers). The participants were all read an oral consent script (**Appendix E**) outlining these risks and the voluntary nature of their participation in the study.

*Document Review:* Documents were reviewed for content pertaining to aspects of Eyal's framework as they pertain to the impact of Guyanese-relevant training on retention of health care trainees in the workforce and capacity building of the UGDS program.

These documents include the reflective journals and presentations completed by 14 learners following their regional training.

### **2.2.5 Data Analysis**

Data analysis used the constant comparative method to allow for themes and patterns to emerge from the multiple sources of evidence (Merriam, 1988). The constant comparative method involves comparing one segment of data with another to determine similarities and differences. The analysis commenced by reading interview notes, documents, and other data in their entirety to get an overall view of the data. Preliminary notes were made in the margins. Segments of the dataset that were relevant to the research question were then identified. Lincoln and Guba (1985) describe a segment as a ‘*unit*’ that reveals information relevant to the study and is the smallest piece of information that can stand by itself. A unit must be interpretable in the absence of any additional information other than a broad understanding of the context in which the inquiry is carried out (Lincoln & Guba, 1985, p.345). Corbin and Strauss (2007) refer to this phase of coding as ‘*open coding*’, which involves the analytic process through which concepts are identified and their properties and dimensions are discovered through data (Corbin and Strauss, 2007, p.101). In this study, the raw data were reviewed and refined into units, which were then compared and sorted into categories that reflected the critical aspects of Eyal’s Framework on the impact of locally relevant training on physician brain drain. These categories were exhaustive insofar that all relevant data were assigned an appropriate category. As well, categories were mutually exclusive so that each piece of

data was placed into only one category (Merriam, 1998). The data collection stopped when the categories and new data gathering ceased to generate new insights (Charmaz, 2006).

On the advice of Yin (2003), data analysis was conducted with specific “*formal procedures to ensure quality control during the data collection process*” (Yin, 2003, p. 106). In particular:

1. In order to cover the complexity of the case and its context, this case study relies on multiple sources of evidence. The use of multiple sources of evidence enables triangulation, which is important to explore the phenomena from multiple perspectives.
2. Attention to data management was particularly important given the tremendous amount of data (Merriam, 1998). Accordingly, all information about the case - interview logs, transcripts, field notes, reports, records, and other materials - was brought together into a single database that was managed via NVivo 9 software.
3. A chain of evidence was maintained. This was achieved by iterative cross-referencing between the case study report, the database, direct references to specific sources in the database, the protocol and the case study questions.

### **3.0 Results**

The purpose of this research study was to explore the utility and comprehensiveness of Eyal’s framework through the lens of Guyana’s surgical training program. In particular, the following research questions informed this study:

1. *What influence – positive and negative, intended or otherwise - does the UGDS Program have with respect to the retention of trainees?*
2. *How do members of the UGDS program contribute to capacity building and the self-sustainability of the program?*

Through in-depth interviews, study participants described their perceptions and experiences with the UGDS program with regards to various aspects of Eyal's framework. The research findings that this section reports are based on analysis of the following data sources: semi-structured interviews, reflective journals and surveys.

### **3.1 Potential Benefits of Locally-Relevant Training**

#### **3.1.1 Relevance of Skills**

The results indicated overwhelmingly positive views that the UGDS program teaches relevant skills for the specific Guyanese demographic and low-resource settings. In the survey, 5/10 strongly agreed and 4/10 somewhat agreed that the program focuses on local conditions.

Reflecting on the learning experience, one trainee [T01] commented,

*“I think here we get a large volume of the kind of cases you will end up seeing in those areas [rural areas]. So there's a lot of exposure, a lot of on hand practical work, reading around the subject. So you get pretty prepared with respect to our demographic and obviously under resourced areas.”*

One faculty member [F01] described the training as teaching *“enough to give basic knowledge.”*

Another graduate [G01] expanded on this saying, “...*The program doesn’t teach you, you know, first world techniques or advanced techniques. Basic surgical training to survive in the community. The routine stuff. Appendicitis, hernias, trauma.*”

Learners felt that they benefited by being able “*understand and treat these pathologies right here*” [G04] and one participant [G03] suggested: “*It has to do with exposure to the pathology inherent in tropical –complications of tropical diseases and so on. And it’s just the exposure I think that gives you a sense of being strong in pathologies that are common here.*”

The relevance of locally relevant training extended beyond surgical training and also encompassed understanding the resources and protocols in the region. This is highlighted by this exchange:

[G03]: *Well this is where I would practice, so it’s good to train. I firmly believe that regions should be training their own.*

[Interviewer]: *Why’s that?*

[G03]: *Regional practice, the inherency of practice –it’s not just in this case, the surgical craft but it’s a lot of it is how to deal with the resources you have and how you use those resources. Paperwork. And everything that goes- the protocols in the region.*”

Learners also commented on their preparedness for working in a resource-limited setting as a result of the program. One participant [G04] illustrated this saying, *“And then to work with whatever you have. Because we don’t have CT scan readily accessible –we don’t have ultrasound 24/7. So these are things you learn through the program to deal with those. So you’re well adapted.”*

Another participant [G07] strongly agreed that the UGDS program teaches skills relevant for work in under-resourced areas explaining, *“Because [the training] was done [in Guyana] and the people who taught us, taught us in the condition we are working currently.”*

An exception to the relevance of training was the theoretical aspect of the curriculum. Graduates [G08] explained that, *“the theoretical part is based on the STEPS module of the FRCS [Fellowship of the Royal College of Surgeons]. Which is not really locally based.”* Expanding on this, [G08] commented that they have theoretical knowledge of advanced skills although in actuality they do not necessarily use these skills. *“We know it theoretically... Like the gallbladders everybody takes it out by laparoscope, we do it open.”* Another graduate [G07] stated, *“I’m certain that we’ve done classes on advanced technologies but I’m supposing that is just for general knowledge and maybe if you want to further yourself in something you know that these are available.”* Comments like these highlighted a disconnect between the didactic and practical components of the curriculum. In fact, one participant [T01] reflected, *“But it seems as though we are working and it’s separate from going to class.”* A faculty member surmised, *“I think they were stressing more on clinical stuff and developing their*



*operating skills and so on. And I think if the academic foundation is not very strong then it's very difficult for them to build on it."*

Eyal also suggests that locally relevant training may improve retention because the acquired skills are less relevant for work in the private sector or in the West. The participants did not specifically comment how they perceived their training to have influenced their ability to work in the West. Contrary to Eyal's expectation, the majority of participants commented that they currently supplement their practice at the public health centre with private practice. In some instances, they explained that the locally relevant training facilitated their ability to practice in the private setting, by virtue of improving their credibility and prestige in this sector.

Taken together, these data suggest that the participants feel a sense of preparedness and comfort working in the Guyana context. They cited a high volume of cases and exposure to a variety of pathologies that promoted the acquisition of skills relevant to surgical practice in Guyana. However, they did reflect on some tension in the relationship between the theoretical and practical aspects of the program suggesting that the theoretical component was in some ways out of scope and inconsistent with the clinical components of the curriculum.

In all, the data collected here are consistent with Eyal's suggestion that the local relevance of training will positively influence retention. The UGDS program provides an optimal setting in which trainees can acquire relevant knowledge for practicing in Guyana. Of particular importance, this knowledge extends beyond clinical skills and includes a thorough understanding of the protocols, technology and resources, and even

predominant cultural views and attitudes in a given setting. Overall, it can be said that the training obtained through the UGDS program enables graduates to adapt to the unique Guyana context. In turn, this instills a sense of confidence in these learners and facilitates a smooth transition into practice, which are factors that may contribute positively to retention. However, inadequate teaching around cases and a didactic component unaligned with actual practice may contribute to frustration and diminish the quality of continuing medical education, which are factors that negatively influence retention.

Based on this, it can be concluded that Eyal's framework does a good job outlining how teaching relevant skills influences retention. While contextually appropriate knowledge will certainly make physicians maximally helpful in the regions they work, Eyal's claim that it serves to makes graduates' skills less relevant for work in the private sector and the West is questionable. The results suggest that this may simply be the result of the qualification granted, rather than the actual skills and abilities of these learners.

### **3.1.2 Affect and the Reduction of Burnout**

Eyal (2008) suggests that locally relevant training could prevent medical emigration by diminishing burnout and frustration. He speculates that frustration is often the result of a discrepancy between the expectations of westernized education and the reality that is eventually met on the ground in resource-limited settings. The results here indicated that there are varying levels of frustration and burnout among the participants.

Many of the participants responded positively with regards to their affect, indicating a sense of satisfaction owing to their role, having a sense of academic

satisfaction, having positive working relationships with their colleagues and feeling appreciated. For instance, one graduate [G08] commented, *“It gives me this feeling of satisfaction that you know, somebody has done it for you and you can do it back for somebody else.”* This was also reflected in the survey data. Five out of ten (5/10) respondents indicated having high morale during the program, 2/10 indicated having very high morale. The majority of respondents (7/10) perceived their stress levels during the program as being ‘average’ and 6/10 respondents indicated that they at least somewhat agreed with having work-life balance during their time in the program.

Yet, the data also indicates that frustration and burnout is still prevalent among graduates and trainees. However, the participants didn’t specifically attribute this frustration to a lack of preparedness, as Eyal suggests. Rather, participants acknowledged a sense of frustration owing to being overworked, understaffed, and having a high degree of responsibility. One graduate [G07] explained, *“All the responsibility was held on our shoulders”* and *“sometimes it can feel overwhelming”*. Similarly, a faculty member [F01] stated that, *“they [the trainees] feel like they are doing most of the work”* and acknowledged that *“If they are at GPHC, they are given a lot of responsibility...I know that they take a lot of responsibility on, especially on call and so on. The consultants don’t necessarily have to be present. They take on a lot of top cases.”* In this regard, another participant [G01] commented, *“It takes a strain because in addition to teaching you have your clinical responsibilities and so on.”*

The review of the data in this category suggests that the locally relevant training was not necessarily beneficial in reducing trainee burnout. Interesting, however, the

burnout was not experienced as a frustration over a lack of preparedness, as Eyal suggests. Rather, participation in the program seemed to be understood as a contributor to an increase in responsibility. Continuing the ongoing efforts to train surgeons and retain them in Guyana's workforce, as well as integrate them into the UGDS program upon graduation will need to give serious consideration to the way this affective response is managed moving forward.

These results have implications for both retention and capacity building. Overall, the training program may be ineffective in diminishing burnout, which may negatively influence retention. Building capacity by strengthening the health workforce may help to lessen frustration tied to excessive workloads distributed among relatively few trained specialists. In this way, capacity building is closely tied to the retention of these graduates.

It is important to consider the immense responsibility placed on individuals who graduate from locally relevant training programs, particularly in regions lacking an existing pool of trained specialists. Eyal's framework should incorporate this additional source of burnout and frustration. As well, the framework should consider the possibility that frustration and burnout may actually increase with the implementation of locally relevant training, at least initially, until adequate capacity has been built. To assume otherwise -that locally relevant training diminishes frustration- may be overly simplistic and not truly capture the complexity of the issue in regions with a severe deficit of trained healthcare workers.

### **3.1.3 Rotations and Recruitment into Rural Areas**

Eyal suggests that by holding rotations in, and recruiting applicants from rural areas, locally relevant training may diminish medical brain drain and subsequently improve retention in those areas. Accordingly, the graduates and trainees were asked to report their hometown, which was then classified as either rural or non-rural. Furthermore, several questions sought to elucidate views concerning experiences in the regional component of their training. Two trainees indicated having a rural hometown whereas the vast majority (8/10) identified their hometown as Georgetown, the country's largest urban centre. All the participants who completed the survey were concurrently practicing at GPHC, with the exception of one graduate who was pursuing advanced training abroad. One participant expressed an interest in eventually returning to the regional setting. Notably, this participant was originally from a rural setting and stated this was the main influence driving his/her desire to eventually practice in the rural setting.

This aspect of Eyal's framework is discussed in two parts: the perceptions of rural training and practice and the experiences during the regional component of training. Overall, rural practice was perceived in an altruistic way and a theme emerged in which participants described the views and attitudes of those in the regions. When describing their experience in the rural setting, responses were centered on the quality of the learning experience, housing and living arrangements, practicing independently, professional development, recommendations for the regional training component, support,

implications of the available technology, and resources and facilities in the regional setting.

### *Perceptions of Rural Practice*

**Altruism:** Multiple graduates reported that their experience during the six-month regional component of the training improved their understanding of the challenges faced in these areas and it enabled them to better comprehend the complexities of delivering surgical care in these underserved regions. The experience improved their understanding of the role they could potentially play as surgeons, change-makers and leaders in order to improve conditions in these regions. As a result of this awareness and broadened worldview, graduates reflected that they are more inclined to practice in the rural setting and indicated a strong desire to “give back” and “make a difference”. The majority of graduates and trainees surveyed (7/10) responded that they somewhat agreed they were more inclined to practice in a rural setting as a result of the training. One graduate [G01] captured this notion in commenting, “*Why would I go there [regional setting]? I think you can make a bigger difference in the regions.*”

The graduate of the program [G01] commented:

*“I would probably agree with that [being more inclined to practice in a rural setting] you know. Because the people out there need help...Yeah, you kind of saw what is going on in the community. The people are struggling. And the sad thing is those people don’t need a lot of money, it’s just basic leadership to put things in place. Things just drift out there.”*

Another graduate [G04] explained that, *“A strength [of the program] is that that the [regional] rotation allows you to see things differently. And you retain persons like that”*.

Overall, the participants cited increased awareness and a desire to give back as factors that influenced their views about rural practice.

The results suggest that increased awareness gained through the regional training component of the UGDS program and a personal desire to help will positively influence retention, particularly in rural settings. In turn, this may positively influence capacity building by enhancing health care services and improving the infrastructure in these regions.

**Attitudes:** Graduates reported that in certain instances, the prevailing attitudes and views of those in the regional setting negatively influenced their learning experience. The graduates reported that they perceived unwillingness to work and a *“reluctance to get things done”* by those in the regions. One graduate [G01] commented, *“I don’t think the problem was with the training. I think the problem was the attitude of the people to get the work done...In the region it’s all about, ‘How can I do the least amount of work? How can I do the least amount?’”*

Overall, participants expressed that these attitudes detracted from the learning experience of trainees during their regional training. The graduate commented on the conflicting views and goals between trainees and regional staff [G01]: *“I mean, a simple example is that there is an operating list. So I am booking like 8 patients. And they are like, ‘What’s this 8 patients? No we only do 3-4’ And I’m like, ‘Why do we only do 3-4?’”*

*And these are not big cases. Basic cases. So I got a lot of resistance that way. It was very, very tough.”*

In many instances, the Regional Centres routinely referred cases to the tertiary centre, GPHC. The trainees often perceived this as a limitation to their learning experience:

[G01]: *I mean the actual hospital environment is not that far from GPHC you know. It [the regional hospital] is not that far. It's the attitude. So the status quo attitude is “the really simple things we do here. Anything that's sniffing out that could be a problem let's send to Georgetown.” So here you are as this young surgeon, you wanna do more stuff. Now the people have to do work, you see again it goes back to the preparation. See I wanna do cases there and they are like ‘no, no, no, send to Georgetown’.*”

Other graduates commented on these attitudes and views as being entrenched and the subsequent difficulty fostering positive change in these areas, [G06]: *“To implement changes takes a long time in my opinion. There are many excuses; [mostly] ‘this is the Region and this is how it works’.*”

In summary, the attitudes of those in the regional setting were not always conducive to promoting a positive learning experience. Individuals in the regional setting preferentially referred cases to the tertiary centre, which detracted from the learning experience afforded to the learners. While this may not influence capacity building within the program per se it almost certainly impedes the potential for capacity building and development in the regions. A disconnect between the learning objectives of the trainees



and the goals and attitudes among those in the regional hospitals may contribute to a negative learning experience which negatively influences the retention of trainees in these regions.

**Quality of Learning Experience:** A recurring theme among graduates, trainees, and faculty was a compromised learning experience during the regional training. This was partly the result of a limited availability of work. Participants also commented that the conditions in the regions were unsuitable for learning. As a result of this, they reported feeling that they were unable to accrue adequate experience during the regional component of their training. The regional settings often had insufficient support staff, resources and facilities. Participants indicated that there was a dearth of support staff, particularly a lack of anaesthesia and scrub nurses. The laboratory, radiology, x-rays, and operating theater were only available under certain hours that did not necessarily coincide with the needs of the surgical trainees which posed considerable limitations.

[G08]: *“Even though your teachers say that, you know, they are influencing you to go out, the facilities were not really there to keep you there, you know, occupied for the 24 hours that you should be there.”*

[G05]: *“One of the major concerns is the ongoing unavailability of support services including theatre, laboratory and radiology after 16:00 hrs and on weekends and holidays. This makes it very difficult to manage many patients and has invariably resulted in me losing valuable experience as these cases are usually referred to GPHC for further management.”*

[G07]: *“It seemed as though we were sending all the work from there [region] to here [Georgetown]. So they said it’s best to come here [Georgetown]”.*

Due to the limited resources and support staff, the trainees in these settings were often unable to conduct emergency or on-call surgeries. Instead, trainees mostly performed minor cases under general and local anaesthesia. As a result of these limits imposed by the regional setting, the surgical trainees essentially resuscitated, stabilized, and then referred patients to GPHC. This limited the experience trainees were able to accrue during their stay and consequently, they felt they were unable to improve their surgical skills. Multiple participants reported returning early to Georgetown and spending less than the expected six months in the regional setting. One participant [G02] explained, *“I stopped working in a rural setting midway through my rotation and returned back to GPHC, because I wasn’t really doing what I was supposed to be doing.”* Similarly, another participant [G08] explained, *“I spent about 2 months there [in regional hospital] and then I came back and I discussed with Dr. Rambaran that it’s not really what I wanted to do.”*

Non-surgical aspects of the regional training were emphasized including administrative duties and occasionally covering other departments. A participant [G01] explained that, *“This sapped my energy and distracted me from my true mandate; surgery.”*

Many participants also reported feeling that they were not adequately challenged in this setting.

[F01]: *“They spend the time [in regional setting] and they do nothing. And they want to do things.”* [G01]: *“So here you are as this young surgeon, you wanna do more stuff.”*

As well, the regional setting has a low volume of patients, by virtue of these being remote contexts. A policy-maker [P01] acknowledged this, commenting that, *“A surgeon in the interior is not going to be operating every day, because you don’t have that volume of patients to operate every day.”* Ultimately, this limits the learning experience afforded to the trainees. As one trainee reported, *“The patient load I didn’t believe was sufficient enough for my training experience, to improve at the time that I did it.”* The relatively low patient volume was further exacerbated by some patients having a preference for certain doctors and, in some cases, a distrust of the surgeons due to negative experiences with previous healthcare providers in the region. Overall, multiple participants reported feeling underutilized in the region and comments were made that the lack of patient load in these settings was an impediment to their learning experience.

The interpretation here is that the regional setting may hinder the depth and quality of learning experiences by virtue of a lack of patient load, an underutilization of trainees, and/or insufficient support and resources. Most trainees and graduates reported feeling that the regional setting may not be appropriately challenging and insufficient for meeting their learning goals. These factors that contribute to a negative learning

experience in the regions may negatively influence the retention of these learners in these settings. Many participants reported leaving the regions early during their training and they explained that they were less inclined to return to the regional setting as a result of their initial experiences during the regional training.

**Housing:** Several participants commented on their experience obtaining housing during the regional training. In many instances, the process of obtaining satisfactory living arrangements was described as disorganized and frustrating. This was particularly true for trainees at the outset who were among the first trainees in the regions. One graduate [G01] described his experience, *“I had to go and fight to get my housing. I had to organize the building, getting a bed in there. It was crazy.”* While a number of trainees reflected on their experiences with housing, they didn’t speak directly towards the influence of poor housing on retention or future participation in the UGDS. However, it is reasonable to assume that these experiences may also influence trainees’ perceptions of practice in regional settings. Providing support to facilitate housing arrangements in a timely and formalized way has the potential to positively influence retention.

**Independent Practice:** Several graduates and trainees commented on the nature of practice in the regional setting. Unlike the tertiary centre in Georgetown, the regional setting offered a unique opportunity for trainees to gain experience practicing independently. Many trainees reported that they found the transition to independent practice difficult and they perceived the independent aspect of the regional training as highly challenging.

[G07]: *“When you’re there [regional setting] you report to nobody. You report to yourself. And making decisions and going out of your comfort zone and making those decisions, the transition can be hard.”*

In the regional setting, the trainees made decisions independently and often assumed a leadership role in the administrative aspect of surgical care, which they felt unprepared for.

[G08]: *“When we actually got to the regional hospital, I was trained as a surgeon. But when I went out there, I realized that we were not trained to like administrate or manage, the way we were trained, these things are taken care of. Alright, so, like ordering requisites, and having a clinic schedule, and having an operating time, it was quite different, because we were accustomed to it’s already in the system. So, that took a few weeks for me, personally to get organized.”*

Participants also commented on the independent nature of the regional training in a positive light. They suggested it was beneficial for them to assume personal responsibility rather than relying on senior staff. Practicing independently as “*the boss*”, not having to reporting to anyone and being the only surgeon in the hospital was perceived as “*a bit more efficient*” relative to their experiences at GPHC.

[G03]: *“It [being in rural setting] gave you a chance to be a bit more responsible. With regards to your previous work here [GPHC] you always have the consultants and senior people here to fall back on.”*

[T01]: *“I want to get out [in the region] and get some of that alone, on my own two feet practical experience.”*

There were several comments made that these learners understood their limitations in spite of practicing independently and were cautious not to practice beyond their abilities. For example, [G08] said, *“You will not pick a battle that you can’t win. Even though work is being done, the guys won’t take on work that will land them in trouble at some point. They are very cautious and they will send out when they don’t know”*

Overall, practicing independently was perceived as challenging and difficult, but also viewed positively as a unique opportunity to gain independent experience.

Independent practice, if appropriately managed and facilitated by senior staff may contribute to capacity building in the program and within the larger health system in the regions by encouraging graduates and trainees to assume leadership roles. However, it can be inferred that this may inadvertently have a negative influence on retention. If trainees feel overburdened or challenged beyond their limits and abilities they may be less inclined to work in these rural settings in the future.

**Professional Development:** The trainees and graduates commented that the regional training provided a good opportunity to improve surgical skills and acquire new competencies. Most surgical trainees referred to the acquisition of *“basic skills”*. As one graduate [G01] explained, *“You were taught the basic procedures so you can adequately function in a regional setting”*. Similarly, a faculty member [F04] commented that *“I*

*think the basic thing was to make doctors or surgeons who can deal with all surgical emergencies and important things...we teach them basic principles of treatment, the cases they can handle at their own peripheral clinics.”*

Commentary regarding professional development also extended to experience gained in the administrative aspect of these surgical clinics and how the time spent in the regions contributed to personal maturation. It was suggested that the experience “*built character*”. In this respect, one graduate commented, “*The time spent in Linden was challenging but rewarding. I grew as a person and matured as a surgeon-in-training.*” However, comments were also made suggesting that serving in the regions was not always conducive to professional growth. For example, one graduate [G05] commented, “*Any person with any bit of ambition will always look for ‘Ok, I’ve served my time in the region, I want to progress now, I want to get my career higher, I want to get this done.’*”

A common expression was that graduates acknowledged the importance of professional development in retaining trainees:

[G01]: “*That’s why professional development in the [rural] community is absolutely necessary to keep these doctors involved, keep them up to date with what is going on.*”

Yet, trainees who had acquired further training (i.e., experience in a surgical specialty) and enhanced their professional growth felt that being in the regional setting limited their usefulness. One trainee [T01] reflected, “*I think at some point, I would outgrow my usefulness in a rural setting and I think at that point maybe younger surgeons will come and take my place, but I think that will be it for now. But ultimately, you want*

*to be where you are most useful.” Another graduate [G08] who acquired further specialist training commented, “Well, as it is now I don’t think I can go back there [regional setting] unless they set up something like a specialty centre where I can actually do what I’ve been doing for the last couple of years.”*

These members of the UGDS program played a key role fostering the professional growth of those in the regions –particularly professional growth among ancillary staff and nurses through teaching and workshops. Hence, they successfully built capacity in the regions. Overall, the results suggest that professional development is sought by these individuals and may play a key role in retention. Participants indicated they prefer settings that provide opportunities for their professional development and the regions were considered lacking in this respect.

Similarly, learners who had acquired advanced training were less likely to return to the regional setting. The desire for professional development and having acquired advanced skills negatively influenced retention in the rural setting.

#### **3.1.4 Prestige**

Eyal suggests that locally relevant training could raise the prestige of rural and public sector jobs. This may be accomplished by having role models engage with students and positively shape their values and aspirations of rural practice. This was reflected in the survey results in which 4/10 respondents strongly agreed and 3/10 somewhat agreed that their teachers positively influenced their views of practicing in a rural setting.

Additionally, connections with Western institutions may help raise the prestige and credibility of locally relevant institutions. 6/10 survey respondents strongly agreed



that the program helped to raise the prestige of rural sector jobs. 5/10 survey respondents strongly agreed and 5/10 somewhat agreed that the program helped to raise the prestige of public health sector jobs. Several participants commented that the surgical program itself is perceived in a positive light. They expressed their view that graduates of the surgical program are well respected as a result of their skills and training. One participant [G02] stated, *“I think generally speaking it [perceptions of program] would have to be positive”* and *“most people have respect for the graduates of the program.”* Another participant [G03] commented that, *“Among peers, among patients, I think it’s perceived as a very good program.”*

One participant commented on the quality of training suggesting, “At the end of the day, a lot of the guys learn skills that even third year residents at some prestigious university... have.” The calibre of these learners was attributed to “The quality of the training. Not so much the qualification you get afterwards but the amount of training, the amount of things you are able to do, the amount of skills you obtain from the program.” There was consensus among participants that the program’s prestige is compromised by the qualification that is granted. Other programs grant a Master’s degree whereas the surgical training program is only a diploma. One participant [G02] explained that the UGDS program is, *“... perceived to be one of the weakest postgrad programs. Not necessarily because of it’s content. But because of the outcome measure, which is the diploma.”* Since the inception of the surgery program in 2006, six other postgraduate training programs have been implemented which provide a higher qualification. As a result of this, over time, the prestige of the surgical program has diminished. A graduate

[G01] commented, *“The sad part is, surgery was the first and now surgery is the last”* and another participant [T01] acknowledged this sentiment saying, *“With respect to the program itself and the end result –the diploma. That has depreciated.”*

The prestige of the program was positively influenced by CAGS. 9/10 survey respondents indicated that they strongly agreed that CAGS lent credibility to the program. A graduate [G01] suggested that *“Their [CAGS] visit was helpful both from a technical point of view but more importantly provided credibility for my work”* and another graduate [G02] expanded on this saying, *“So with Dr.Y there and with the examiners coming from CAGS, it gives a lot of credibility to the program.”* One participant [F03] felt that *“the graduates of the surgical program are getting recognition and credibility in the private sector”*. A trainee [T02] reflected, *“Sometimes, these same patients go privately, they spend a lot of money. Then when the money finishes, they come here and after we have treated them and so forth, they thank you and some of them tell you they regret going there [private] in the first place because the same thing that they could do there for them, they’ve done here.”*

Overall, the results indicate that the program is highly respected. By virtue of this, the program is positively influencing perceptions of rural and public health sector jobs. Graduates of the program are recognized as highly competent and skilled among patients and peers. The presence of CAGS further enhances the program’s prestige. However, the qualification granted through the UGDS program is a diploma, and this compromises the program’s prestige relative to the other postgraduate programs in Guyana that offer a higher qualification.

This aspect of Eyal's framework has multiple implications for retention and capacity building. Positive perceptions of prestige will improve retention. Graduates of the program seek respect and esteem and will be more inclined to practice in settings where their affiliation with the UGDS program is viewed positively, or in settings that they themselves perceive to be prestigious. As well, positive perceptions of the program's prestige among prospective learners will influence recruitment into the program. This is integral for building capacity and necessary for the program's sustainability. The results suggest that capacity building across the UGDS program may be jeopardized by the view that other postgraduate graduate programs are more respected, because they offer a higher qualification as the end result. Prospective applicants may be more inclined to apply to other programs instead of surgery, which adversely affects capacity building within the UGDS program.

Eyal's framework sufficiently addresses prestige surrounding rural and public sector jobs and its influence on retention. The framework should also consider the important influence of the program's perceived prestige. The prestige of the program itself strongly influences recruitment into the program and hiring practices, which are key aspects that shape retention.

### **3.1.5 Local Career Development Options**

Eyal suggests that locally relevant training creates local career development option for trainees and graduates following their training. This was strongly reflected in the statements made by participants. They indicated the program as a source of professional development for themselves to improve their skills. As well they suggested that the

program facilitated key networking that helped to advance their careers and pursue further training through fellowships. One graduate [G01] explained, “...*I firmly believe that the program gave me the base to actually develop what I have learned...I saw [it]...as a good stepping-stone to being on your own and developing your surgical career from there.*” Participants reflected that their involvement in the program contributed to promotion and their ability to obtain more senior positions. However, the participants were frustrated by what they perceived as uncertain career paths and cited the need for a more formalized and structured path to career advancement beyond the program. Through the program, participants were exposed to research opportunities and teaching opportunities. Participants unanimously agreed that they lacked sufficient access to formal research training, which limited their academic contributions. Overall, the participants demonstrated a strong commitment to building capacity in the program. They indicated being highly engaged in teaching and playing leadership roles running the program. One faculty member [F01] commented, “*I plan to stay involved continue doing the teaching. Because it is interesting –these are the people that we work with. So I try to tailor my teaching so that when they come – I always tweak it because I see what their weakness is.*”

### **3.2 Concerns With Locally Relevant Training**

#### **3.2.1 Quality of Care**

Participants commented that the regional training ultimately benefited the quality of care in the region by improving the availability of surgical services. For instance, [F02] said, “*When they go into the region, the quality is better than it was before. Because*

*sometimes no surgery was available before.*” However, problems with equipment, electricity and a scarcity of resources often resulted in delayed start times to surgery and patient anxiety. Basic improvements in work conditions will play a significant role improving the quality of care irrespective of any changes in the UGDS program.

In turn, this will have implications for retention because many graduates and trainees prefer to be at the “*centre of excellence.*” and are dissatisfied remaining in a setting where they perceive the quality of care to be sub-standard. Nonetheless, the overarching sentiment was that the UGDS program improved the quality of care in the regional settings.

### **3.2.2 Hypocrisy**

Eyal cautions that Western institutions may be hypocritical by advocating for locally relevant training aimed at improving retention but failing to reform their harmful recruitment practices. When asked about the role of Western institutions relative to the UGDS program, participants responded that they did not perceive them to be hypocritical in their actions.

One graduate [G01] commented, “*I don’t think there is any Western institution that is recruiting Guyanese. I don’t think so.*”

Similarly another participant [G03] commented, “*I don’t think there is a sort of lurking*”.

Another participant [F02] suggested: “*...I think it’s supportive [the role of Western Universities]. I think we benefit from when faculty comes down, when fellows come down, when junior staff when they come down they share their perspective and*

*knowledge and so on. I think the guys who go on these clinical fellowships or observerships, they benefit from being exposed to what it kind of should be like. I don't think any of them have left because of that exposure. So I don't think it really contributes."*

All comments in this regard overwhelmingly regarding the CAGS involvement as non-hypocritical. In fact, participants indicated that they strongly appreciated the support that CAGS provided. They were grateful for the support CAGS provided helping the learners improve their clinical skills, [G04]: *"The experience and confidence gained can't be understated; those guys [CAGS] really helped a lot"* and for playing a significant role *"fostering health education and health care in Guyana."* The graduates and trainees shared anecdotes of CAGS members offering them support and mentorship. In one instance a CAGS member facilitated a fellowship abroad for two trainees [G03], *"So one of the lecturers that came down...had an opening... a grant for a scholarship for someone from a LMIC to go out there. It was supposed to be nine months, for the complete fellowship but they actually divided it. I got 4 months, and somebody else got 4 months to do something else."* They spoke of the nature of the CAGS partnership in a positive light, as one built on *"friendship, respect and mutual trust"* and suggested that it was collaborative, *"It was never sort of a, 'us doing something for you', it was always 'we were all doing this together.'"* In this way, it would be unlikely that CAGS involvement contributed to brain drain in the Guyanese context. Rather, it seems that Eyal's framework should be revised to account for the contributions of the global-accountable

institution from high-income countries, some of which include mentorship, improved prestige and shared knowledge.

### **3.2.3 Lack of Support**

Eyal suggests that physicians, medical school professors, international partners including medical schools and international NGOs, act as allies in support of locally relevant training. However, he also identifies that a lack of this support is a potential concern. Influential actors including local medical associations, regulatory councils, or medical schools could potentially oppose this training, viewing it as a threat to professional prestige or the quality of care resulting in key actors being unsupportive of its implementation. In this way, key players may also be concerned about the effects of locally relevant training to their own positions, which may also contribute to a lack of support. Many of the graduates, trainees, faculty, and policy makers spoke of this support or a lack thereof, providing interesting insights to Eyal's framework.

For instance, participants identified faculty members, senior staff, fellow learners, Institute of Health Science Education, GPHC, University of Guyana, and the Ministry of Health as the key players that support the program. Participants mostly spoke in terms of the support provided to the learners and individuals within the program, and did not speak directly of the support towards the program itself. There was converging evidence about the helpful role faculty and senior staff played. With regards to the support provided by faculty members, there was consensus among several graduates and trainees that faculty was highly supportive. Participants indicated that key faculty and senior staff members

were “*readily available*” and that they offered their “*continued support and willingness to be consulted at any time*” and were “*encouraging and accessible during times of need*”.

However, the participants suggested that the number of faculty members and senior staff involved with teaching is insufficient:

[T02]: “*I think people should become [more] involved with the program because they need more people in the program, in the department actually.*”

[T01]: “*We don’t get too much contact with the consultants except for sometimes in Rounds whenever they do a bit of teaching. But we don’t get a lot of one on one.*”

[G08]: “*I think they [the trainees] need more, a little more, contact time with the staff*”

In this regard, participants felt that support for clinical tutoring and proper clinical supervision [are lacking] and a current trainee [G01] remarked that, “*there wasn’t that much teaching per se.*” Rather, the program trainees were required to “*learn on the job*” owing to a lack of “*emphasis on teaching practical stuff*”. They called for better teaching support for the didactic component and modules and for building a stronger academic foundation. A faculty member [F02] explained, “*I think they were stressing more on clinical stuff and developing their operating skills and so on. And I think if the academic foundation is not very strong then it’s very difficult for them to build on it.*” A trainee [T01] supported this view, stating that, “*a lot of the didactics is lacking.*”

Overall, while participants felt that the MOH was supportive of the program, they cited areas for improvement. One graduate [G08] commented, “*I think most people are*



*supportive, I think most people want it to happen. And even with the diploma as it is, once the program gets rolling, everyone pitches in. Everyone gives their bit of it even the MOH, the ministers.”* Consistent with this view, a participant [F03] stated, *“The other level is the Ministry of Health and the government itself. And that has been also supportive. Every now and then –at that level there’s always this debate about whether this is the right way to go in terms of our own programs or simply going back to the old fashion of sending people abroad for training. But by and large I think that the Ministry and the government have been supportive.”*

At the same time, multiple participants called for greater involvement by the Ministry of Health. One graduate [G01] stated, *“The government needs to decide are we going to support the University, are we going to support post graduate education in Guyana and really put resources into the program, really start paying lecturers properly”* implying that there was indecision at that level. Similarly, another participant [G03] reflected that, *“Sometimes I think we go into it a bit alone. GPHC and UG and the broader arm of the government or the Ministry. I think it [the support] is lacking. To do the actual training I don’t get the sense that the Ministry puts its resources into the training. More so for you elective –when you go for your elective that’s where the Ministry comes in.”*

The residents called for increased synchronicity between the program and the Ministry of Health -the entity responsible for assigning trainees to the regions for the regional training. One graduate [G01] suggested having *“More involvement by senior officials in the Ministry of Health and GPHC so that a seamless transition can be*

*obtained by the Resident on probation.” A faculty member [F03] commented “We are working with the MOH and appropriate agencies to ensure that those hospitals in the other places where they have to work are outfitted to make it that they can do the work they are trained to do.”*

An interesting theme that emerged was the benefit that key players themselves gained by supporting the program. One participant explained that the MOH was supportive of the program largely because of the benefits they gained:

[Experimenter]: *“Do you think at the ministry level they are supportive?”*

[G08]: *I think so. I honestly think so. Because they benefit from it –they actually run the regional hospitals and they are happy when there are people out there and getting services done that they wouldn’t have done normally.”*

Similarly, a participant [F03] attributed GPHC’s support of the UGDS program as a solution to effectively ameliorating the problematic lack of human resources at GPHC through training additional health workers. *“The institution had all these challenges and problems. And one of it was to get manpower resources and appropriately trained human resources. The hospital and the board have been supportive.”*

A resounding theme was the support that the learners themselves provided to the UGDS program. The vast majority of UGDS graduates indicated that they were still involved and highly supportive of the program. One faculty member [F03] explained, *“So most of the graduates have to come back and become the faculty for the future”* and consistent with this, a graduate [G03] commented, *“All the senior graduates are the guys*

*who facilitate this program.” Specifically, the graduates support the program through teaching and supervising surgical trainees.*

[F02]: *“Most of the modules are being taught by the graduates of the program...”*

[G08]: *“...I do general surgery service call, so I supervise the residents there, I teach them, I do discussions and cases on-call and I operate with them and show them some surgical skills.”*

[G03]: *“I see my role as continuing to be part of the staff and being on board with the development of the program...”*

In all, many participants indicated a strong willingness and intention to support the program in the future:

[T02]: *“Yes, if GPHC needs me anytime, I would just come back.”*

[G07]: *“They just have to ask me and I’ll say yes I’ll do it. Most of us do it on a volunteer basis. Almost all the residents.”*

There is very clear evidence that the UGDS program has the support of its graduates, and that many of them welcome the opportunity to contribute to improved program capacity. In this way, the support (or lack thereof) tendered to trainees in the program seems to be sufficient (or at least not deleterious) to not only their retention in the Guyanese health system but also to the educational responsibilities of the Program.

### **3.2.4 Breach of Freedom of Education and Occupation**

Eyal raised an ethical concern with locally relevant care suggesting it may coercively prevent students from studying westernized medicine or pursuing alternative

training options. Often this is achieved by subsidizing locally relevant training options. Eyal argues that many students will have no real choice except to study locally relevant training. In some ways, this was reflected in the interviews. Participants explained that at the outset, “the general surgery program at that time was the only thing available” and they elaborated on this saying, *“It’s like if you put somebody in a desert and you offer them a half glass of water. I mean that half glass of water in retrospect is useless. But when you’re there, you’re going to take that half glass of water.”* These sentiments were centered on the fact that learners joined the surgical program simply because there were no other alternatives for postgraduate education at the time. *“So you remember, there was no postgraduate medical education. You either had to pack up your bags and go somewhere.”* Participants opted to study in Guyana suggesting it was the most “feasible” option. However, when asked in the survey about acceptable alternatives for pursuing surgical training, all of the participants acknowledged going elsewhere to pursue further training as an option. These other options included studying elsewhere in the Caribbean including Jamaica, Trinidad or Cuba or going abroad to North America or Europe. Participants did not specifically indicate that they felt they were coerced study in Guyana. In fact, multiple participants outlined pursuing further training. In fact, multiple participants cited opportunities to pursue further education and training that were facilitated by the surgical program. One faculty member commented, *“We’re encouraging them to go. And you know, further their training and stuff like that.”* One graduate commented, *“We are also getting fellowship opportunities overseas where they have been getting people shorter and sometimes even longer fellowships overseas. So*

*there is continuing education.*” A policy-maker also elaborated on this saying, *“We are not going to say no to training abroad. So we are still going to send that one guy and so on, but we are focusing more on sending some of our graduates from the postgrad program for further specialization.”* It is apparent that for the most part, the program does not deny educational options to learners who have a prior claim.

### **3.2.5 Breach Freedom of Movement**

Eyal cautions that the formal exit restrictions associated with locally relevant training violates an individual’s inherent freedom of movement. The results suggest that this is perceived negatively by many of the learners and faculty. One graduate explained, *“It’s not a good thing but they are binding them by contract. So some people are bound to the Ministry of Health for seven years after this program and I don’t think that’s fair. Because they are doing a 2.5 year program and they expect you to give them back 7 years.”* Another participant commented on the perceived unfairness of the formal exit restrictions relative to the different programs, *“It’s something like, five or seven years of contract, when the program is just 2 ½ years. And at the end of the program, you just have a diploma; it’s not a good trade-off. Because there are other programs now, you’re four years, and at the end of it you’re given an MMed. And it’s the same exact contract in terms of time.”* The policy-maker that was interviewed explained a consequence of the breach of their freedom of movement saying, *“They cannot travel out of the country, with the bond thing. You have to lodge, something equal to the value of the bond, which is usually a title deed or a property. And you have to wait until the public-service minister decides whether or not to give approval.”*

Lengthy formal exit restrictions may deter prospective learners from joining the program and this may adversely impact capacity building within the program. Breaching the freedom of movement through formal exit restrictions may effectively improve retention in the short term, but it is not a viable option for encouraging long-term retention.

### **3.2.6 Unequal Opportunities**

Eyal cautions that locally relevant training may create unequal opportunities among students whereby richer students can afford private, westernized medical training. Consequently, locally relevant training would be the only feasible option available to poorer medical students. Eyal suggests that this divide between those students able to afford westernized care versus those able to afford locally relevant care is unfair. The results did not indicate that this was the perception among participants. However, it was observed that locally relevant training does create unequal opportunities relative to students in other programs in Guyana and abroad. The qualification granted through other programs leads to preferential hiring practices. One graduate [G04] explained, *“Because the graduate from Cuba who specializes in surgery with a degree that is a Masters, comes back and they become higher. They get a higher position than you do. Like a consultant. So we don’t feel secure. At least I don’t.”* Another graduate [G07] reflected, *“Because it’s a diploma program, it’s never complete. If you want to work privately, you have to compete with other surgeons who have far higher qualifications than you. It doesn’t necessarily mean they can do more than you or that they can do it better. It’s just the way things are.”*

Unequal opportunities among students may have negative implications for retention and capacity building.

#### **4.0 Discussion, Recommendations, and Conclusions**

The purpose of this study was to examine the influence of Guyana's surgical training program on the retention of its graduates. The study also sought to understand how members of the UGDS program contribute to capacity building and the sustainability of the program. Research was conducted through semi-structured in-person interviews with 2 administrators, 4 faculty members, 8 graduates and 2 trainees. In addition to this, a survey was administered and a review of reflective journals was also completed. This section reviews, analyzes, and discusses the findings of this study in light of the relevant literature. This section also outlines the implications of the findings for the University of Guyana's building-level administrators, illustrates modifications and suggested changes to Eyal's framework and concludes with suggestions for further research.

##### **4.1 Insights for Eyal's Framework**

Overall, Eyal's framework effectively represented the data. Certain aspects of the framework were strongly emphasized in the results. Specifically, the categories for career options, support for the reform and the role of rural training were most frequently represented. However, the data does indicate that Eyal's framework may need some refinement and modifications in order to be more comprehensive and accurately reflect how locally relevant training stems brain drain, particularly in the context of the Guyanese health care education system.

#### **4.1.1 Benefits vs. Concerns**

Analysis of the data questions how Eyal delineates the benefits and potential concerns of locally relevant training. The results point towards the importance of understanding these facets identified by Eyal along a continuum rather than as a dichotomous construct. That is, Eyal classifies these aspects as being either advantageous or disadvantageous with regards to the retention of physicians and this does not appear uniformly to be the case.

In one instance, this was illustrated where Eyal cautions that hypocrisy is cause for concern when involving partners in locally relevant training. Eyal explores this idea suggesting that partner institutions from higher income countries may engage in harmful recruitment practices. However, the data collected suggests that in Guyana, the CAGS involvement is distinctly not hypocritical. That is, the contributions from the higher-resource countries involved have been squarely focused on building local capacity rather than poaching. In this context, contrary to Eyal's claim, the partnership is advantageous and actually serves to facilitate retention and capacity building. However, this certainly does not negate the possibility that in other circumstances the involvement of partners could be hypocritical as Eyal suggests. This serves as a useful illustration of the continuum along which the facets of Eyal's framework exist. In order to truly promote retention, a balance must be achieved in which the advantages exceed the disadvantages, while considering the limits imposed by practicality for each of Eyal's categories.



The case study approach highlights that the validity of claims Eyal makes with regards to locally relevant training are strongly dependent on contextual factors. While Eyal's framework does a good job generalizing across settings, the importance of context should not be overlooked. These contextual factors may challenge aspects of Eyal's framework. For instance, Eyal claims that locally relevant training will diminish burnout and frustration. This data showed that burnout experienced among learners did not result from a lack of preparedness but rather stemmed from an increased burden of responsibility that was placed on the trainees. This was particularly true in these regions of Guyana with a severe deficit of surgical capacity. In some regards, this burden is likely warranted, but in others it may reflect that trainees are being taken advantage of. In this context, contrary to Eyal's claims, it is expected that the feeling of burnout will likely increase, at least initially, when the training is introduced. How burnout is manifested in students, may be highly context dependent. Eyal's framework should carefully consider the influence that every unique context will have on his claims.

An important shortcoming of Eyal's framework that emerged from this evaluation is that retention as a concept is limited to keeping graduates practicing in rural or remote areas. However, the data here astutely also recognizes the burden on public health sectors in low- to middle-resource countries in retaining professionals that may otherwise move to private practice. Although often financially less desirable, it does seem that in Guyana the public sector has multiple facets that make it preferable to practicing in a private setting. In particular, it is suggested that unique connections be explored between each of the components of Eyal's framework and three independent types of retention: retention

within the country, retention within rural/remote areas, and retention within public health systems. Eyal's framework is lacking in its definition of retention and refers to retention largely in terms of brain drain within a country. The findings of this research suggest that retention is multi-faceted and that Eyal's claims can be analyzed at the level of the public-private sector and in rural versus non-rural settings.

#### **4.2 General Discussion of the Program**

The importance of training residents locally to avoid emigration of valuable healthcare workers is evident and, overall, it appears that the Program has positively influenced the retention of these graduates. The vast majority of the trainees are currently practicing in Guyana with the exception of some who have gone abroad for further training but who indicate an intention to return to Guyana to practice.

The analysis indicates that the Program achieved its mandate and has successfully trained competent and skilled surgeons who are confident practicing in Guyana. The rural training component raised awareness among learners about the complexities of providing surgical care in these settings. As well, it provided these learners with an opportunity to practice independently and assume leadership positions.

With respect to the second research question, the results suggest that the UGDS program has influenced capacity building greatly and, in a broader sense, has paved the path towards a sustainable culture of graduate medical education in Guyana. All graduates interviewed indicated a strong willingness to engage with the Program and are excited for potential opportunities that may facilitate their future involvement. In

particular, the participants focused on the possibility of teaching future Program residents and to explore opportunities for developing further specialist education. They suggested that the program played a key role facilitating promotion and advancing their careers. Naturally, these opportunities were also understood as a fundamental component on their future professional development.

#### **4.3 Program Recommendations**

The data does indicate however that there are a number of places where the Program may focus efforts to further enhance retention particularly, in the public sector and rural regions. According to participants, the Program is effectively preparing learners with the skills and knowledge to function in the Guyana context, particularly in resource limited settings. This preparedness influences retention positively and also is reported to extend beyond clinical skills expertise to also encompass the leadership and managerial aspects of running a regional hospital. There were two interesting themes in this regard. First, almost unanimously, the participants considered the public sector a better learning environment than the private sector because of the diversity of cases and the opportunities to teach and engage with other students. In this regard, there was no professional preference to practicing in the private sector beyond the financial considerations. Secondly, and perhaps most importantly, participants identified certain influences that may contribute to future decisions to migrate from the regional hospitals, public sector, or the Guyana health system altogether. These influences can be best summarized in terms of the learners' frustrations regarding practice and education experiences in the regional setting. In particular, they felt consistently that a lack of support, inadequate facilities and

poor organizational attitudes compromised their learning.

As well, the data point towards the importance of considering this locally relevant training program relative to the other postgraduate programs that exist in Guyana. In their responses, learners often drew comparisons between these different programs citing perceived differences in prestige and opportunities for career growth. In some respects, the participants felt that the surgical program was at a relative disadvantage. It would be worthwhile to address these perceived differences where possible. For instance, formal exit restrictions may need to be revised to be comparable with the formal exit restrictions imposed by other programs. Similarly, the qualification that is granted may need to be reconsidered since it is viewed as a factor leading to unequal job opportunities among students. This has implications for recruitment into the program, which is necessary to foster capacity building.

Review and summary of the data highlight three aspects of Eyal's Framework that may guide the development of an improved UGDS Program that will promote retention and internal capacity building ideals within its trainees. These recommendations to the UGDS program are presented in n particular, these were related to the concepts of relevance of training, rotations and recruitment in rural areas, and improved supports.

1. Relevance of Training

- a. The data suggest that the Program could improve the relevance of the training through modifications to the didactic components of the curriculum so that learners feel adequately prepared for practical,

managerial, and administrative aspects of their training and of providing surgical care.

## 2. Rotations and Recruitment into Rural Areas

- a. The regional educators should prepare for the incoming trainees by meeting with relevant stakeholders and establishing an understanding of the goals and objectives of these learners.
- b. A team can be established to ensure proper working and living conditions prior to the start of the regional training component.
- c. Training regional support staff particularly nurses and building the human resources for health in these regions –through hiring more doctors, particularly those with surgical background or background in anesthesia and technicians.
- d. Increased to facilitate a better learning experience during their time in the regional setting. This involves [F03] *“working with the MOH and appropriate agencies to ensure that those hospitals in the other places where they have to work are outfitted to make it that they can do the work they are trained to do.”*

## 3. Lack of Support:

- a. Academic staff with teaching responsibilities may be granted formal designations and appropriate compensation. Formalizing faculty roles will contribute to capacity building and retention in two ways: facilitating a

positive learning experience and creating opportunities for professional development. Academic staff with research background will help foster an academic culture.

#### 4.3.1 Summary of Recommendations to the UGDS Program

**Table 3.**  
**Recommendations to the UGDS Program**

<b><u>Benefits or Concerns According to Eyal</u></b>	<b><u>Key Findings</u></b>	<b><u>Modifications to UGDS</u></b>
<b>Relevant Skills</b>	A disconnect between the didactic and practical components of the curriculum	-Revise use of STEP curriculum -Integrate classroom and practical components of curriculum -Prepare learners for administrative and management role
<b>Diminishes Burnout + Frustration</b>	Participants acknowledged a sense of frustration owing to being overworked, understaffed, and having a high degree of responsibility.	-Prepare learners for administrative and management role -Hire additional staff and train ancillary staff to reduce workload
<b>Enhanced Prestige</b>	The program's prestige is compromised by the qualification that is granted	Re-consider the qualification granted (Masters, Diploma)
<b>Improved Career Options</b>	Program perceived as helpful to them advancing their careers. However, they indicated uncertainty and the desire for professional growth	-For those seeking to advance their career, have a clear path -The program should facilitate career advancement and consider additional ways to incorporate continuing medical education
<b>Rotations and Recruitment in Rural Areas ↑ Likelihood of Retention there</b>	Retention is negatively influenced in rural regions due to a compromised learning environment stemming from inadequate support and resources	-Prepare for the incoming trainees by meeting with relevant stakeholders to establish goals and objectives of these learners. -Facilitate teaching managerial aspects of health care -A team can be established to ensure proper working and living conditions prior to the start of the regional training component.

			<ul style="list-style-type: none"> <li>-Training regional support staff particularly nurses and building the human resources for health in these regions</li> <li>-Increased communication and synchronicity with MOH</li> </ul>
<b>Poor Quality Care (QOC)</b>		Problems with equipment, electricity and a scarcity of resources compromised QOC	Basic improvements in work conditions will play a significant role improving the quality of care irrespective of any changes in the UGDS program
<b>Breach Freedom of Education/Breach Freedom of Movement</b>		Participants did not feel they were coerced to study in Guyana; multiple participants outlined pursuing further training. Perceived unfairness of the formal exit restrictions relative to different programs	UGDS program should consider the requirements of formal exit restrictions relative to other programs (time spent, qualification) ; policy-level changes
<b>Unequal Opportunities Among Students</b>		Locally relevant training does create unequal opportunities. However, it is relative to students in other programs in Guyana and abroad	NA -policy level changes
<b>Lack of Support</b>		The number of faculty members and senior staff involved with teaching is insufficient; support for clinical tutoring and proper clinical supervision are lacking	Hire faculty, Academic staff with teaching responsibilities granted formal designations and appropriate compensation.
<b>Hypocrisy</b>		It is unlikely that CAGS involvement contributed to brain drain in the Guyanese context, rather, their presence was perceived as helpful	-Re-consider ways to engage with CAGS



#### **4.4 Limitations**

There were several important limitations to this research. As a qualitative research inquiry, the presence of the researcher introduced bias. The researcher's position was related to one of the key CAGS faculty as well as the program director of the UGDS program. This may have been construed by the participants as a conflict of interest and may have prevented them from disclosing certain opinions.

There was one reviewer for the coding and analysis, which may have limited the rigor of the study since the researcher's interpretations are inevitably subject to the researcher's worldview and personal biases in spite of efforts made to minimize this.

As well, the data was collected over a relatively short time period. It is useful in qualitative research to establish rapport with participants, and this aspect may have been compromised by the shortened timeline. While there were multiple sources of evidence used, this was another limitation since the case study approach could have potentially accommodated many more diverse sources of evidence. There was fairly good representation of stakeholders representing different groups involved with the UGDS program. However, there may have been inadequate policy level representation since only two policy makers were interviewed. This is a limitation because the implementation of the recommendations provided by this work may also rely on support from the policy level.

## Appendix A

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## **Appendix B**

### **Data Collection Tools Graduates & Trainees Questionnaire and Interview Guide**

1. What is your current age?
2. Sex
3. Hometown (prior to starting the UGDS program)
4. Are you married or in a common-law union?
5. Do you have children?
6. Year of expected graduation?
7. Where have you practiced during the regional clinical component of your training? Please list all locations.
8. Did you practice anywhere else during your surgical training? Where?
9. Are you currently bonded to the MOH? Please indicate total years of bond and years remaining.
10. This program has prepared me for my clinical encounters thus far. (Definitely not, Somewhat unprepared, Unsure, Somewhat prepared, Definitely)
11. What percentage of clinical cases do you feel your training will allow you to handle within the Guyanese community? (0-24%; 25-49% ; 50-74%; 75-100%)

12. The UGDS program teaches skills relevant for work in under-resourced areas. (Strongly disagree, Somewhat disagree, Undecided, Somewhat agree, Strongly agree)

13. Teaching is appropriately focused on local conditions. (Strongly disagree, Somewhat disagree, Undecided, Somewhat agree, Strongly agree)

14. Please rate your level of satisfaction (very satisfied, somewhat satisfied, undecided, somewhat unsatisfied, very unsatisfied) with the following elements of your training program:

A. Research training and opportunity
B. Local career options
C. Career development
D. Opportunities for involvement in the UGDS program?

15. The program has helped to raise the prestige of rural sector jobs. (Strongly disagree, Somewhat disagree, Undecided, Somewhat agree, Strongly agree)

16. The program has helped to raise the prestige of public health sector jobs. (Strongly disagree, Somewhat disagree, Undecided, Somewhat agree, Strongly agree)

17. The involvement of CAGS lends credibility to the program. (Strongly disagree, Somewhat disagree, Undecided, Somewhat agree, Strongly agree)

18. Throughout my training so far I have received: (Too little responsibility, Enough responsibility, Too much responsibility, Undecided)

19. My stress levels throughout this program have generally been: (Very low, Low, Average, High, Very high)

20. I am satisfied with the balance between my work life and my personal life in the UGDS program. (Strongly disagree, Somewhat disagree, Undecided, Somewhat agree, Strongly agree)



21. I feel the overall morale among the trainees is: (Very low, Low, Average, High, Very high)

22. The regional training has made me more inclined to practice in a rural setting.  
(Strongly disagree, Somewhat disagree, Undecided, Somewhat agree, Strongly agree)

23. My teachers positively influenced my views of practicing in a rural setting.  
(Strongly disagree, Somewhat disagree, Undecided, Somewhat agree, Strongly agree)

24. I feel that the UGDS program is my only option to study surgery.  
(Strongly disagree, Somewhat disagree, Undecided, Somewhat agree, Strongly agree)

A. If not, what are acceptable alternatives?

Interview Protocol Project: Retention and Capacity Building in the UGDS Program

Time of Interview: \_\_\_\_\_

Date: \_\_\_\_\_

Place: \_\_\_\_\_

Interviewer: \_\_\_\_\_

Interviewee: \_\_\_\_\_

Position of Interviewee: \_\_\_\_\_

(Briefly describe the project. Recap consent and ability to withdraw at any time. State that the interview is being recorded)

25. Please elaborate on your career expectations/goals. (Independent practice as a specialist, promotion within a public system, private practice, further training, leave for overseas)

26. How is your career development being fostered? (Professional opportunities, research opportunities, teaching opportunities, what support is offered for after graduation, resume development).

a. What should be done to foster your career development?

27. What has been your involvement with the UGDS program?

- What is your intended involvement with the UGDS program?
- What opportunities exist for continuing involvement in the UGDS program?
- What opportunities should be created?

- How do you view your role as a future graduate in maintaining human resources and sustaining the UGDS program?
28. How does the UGDS training influence your ability to move to more rewarding positions? Abroad?
29. How does your community of peers perceive your involvement in this program? At the hospital? In the health sector? In your non-professional life? (how do the people who matter to you feel about your involvement as a learner in this program?)
30. How has the UGDS program influenced the quality of care available to patients?
31. What makes the UGDS program a feasible option for surgical training? An appealing option?
32. How do key players support this innovative program?  
In what ways is there support or a lack of support for the UGDS program?
33. What are some of the incentives to retain graduates of the UGDS program in Guyana?
- How do you perceive these incentives?
  - What are some of the barriers and problems you perceive with these incentives?
  - What are some of the benefits to these incentives?
  - How are the incentives and strategies for retention perceived, by others?
  - How do Western institutions' influence brain drain in this context?
34. What would make you more likely to stay in Guyana to practice? (Improved financial incentives (ex. pay raise, housing subsidy), promotion with possibility of Consultant position, opportunity for private practice, further educational opportunities, improved hospital services, improved workplace conditions)
- What would make you more likely to stay in public vs. private practice?
  - What would make you more likely to stay in rural vs. non-rural practice?

**Appendix C**  
**Data Collection Tools Program Leaders**  
**Interview Guide**

Interview Protocol Project: Retention and Capacity Building in the UGDS Program

Time of Interview: \_\_\_\_\_

Date: \_\_\_\_\_

Place: \_\_\_\_\_

Interviewer: \_\_\_\_\_

Interviewee: \_\_\_\_\_

Position of Interviewee: \_\_\_\_\_

(Briefly describe the project. Recap consent and ability to withdraw at any time. State that the interview is being recorded)

1. How is career development being fostered among trainees and graduates?  
(Professional opportunities, research opportunities, teaching opportunities, what support is offered for after graduation, resume development).
  - What should be done to foster career development of surgical trainees and graduates?
  - How are academic appointments being granted?
  - What continuing education is available?
  - What mentorship opportunities exist?
  - What opportunities exist for continuing involvement in the UGDS program?
  - What opportunities should be created?
2. How has the UGDS program influenced the quality of care available to patients?
3. What makes the UGDS program a feasible option to learners? An appealing option?
4. How do key players support this innovative program?
  - In what ways is there support or a lack of support for the UGDS program?
5. What are the program goals for retention of surgical trainees?
6. What are some of the incentives to retain graduates of the UGDS program in Guyana?
  - How do you perceive these incentives?

- What are some of the barriers and problems you perceive with these incentives?
- What are some of the benefits to these incentives?
- How are the incentives and strategies for retention perceived?
- How do Western institutions' influence brain drain in this context?

**Appendix D**  
**Data Collection Tools Faculty**  
**Interview Guide**

1. How is career development being fostered among trainees and graduates?  
(Professional opportunities, research opportunities, teaching opportunities, what support is offered for after graduation, resume development).
  - What should be done to foster career development of surgical trainees and graduates?
  - How are academic appointments being granted?
  - What continuing education is available?
  - What mentorship opportunities exist?
2. What has been your involvement with the UGDS program?
  - What is your intended involvement with the UGDS program?
  - What opportunities exist for continuing involvement in the UGDS program?
  - What opportunities should be created?
3. How does your community of peers perceive your involvement in this program?  
At the hospital? In the health sector? In your non-professional life? (how do the people who matter to you feel about your involvement as a teacher in this program?)
4. How has the UGDS program influenced the quality of care available to patients?
5. How do key players support this innovative program?
  - In what ways is there support or a lack of support for the UGDS program?
6. What are the program goals for retention of surgical trainees?
7. What are some of the incentives to retain graduates of the UGDS program in Guyana?
  - How do you perceive these incentives?
  - What are some of the barriers and problems you perceive with these incentives?
  - What are some of the benefits to these incentives?
  - How do Western institutions' influence brain drain in this context?

**Appendix E**  
**Oral Consent Script (Adapted from HIREB)**

***Case Study: Evaluating Retention and Capacity Building in the Surgical Training Program***

**Researcher: *Anupa Prashad***

***Oral Consent Script***

**Introduction:**

Hello. I'm Anupa. I am conducting interviews to understand your experience in the University of Guyana Diploma of Surgery Program as part of a program evaluation. I'm conducting this study as part of research for my Master's thesis. I'm working under the direction Dr. Lawrence Grierson at McMaster University and Dr. Madan Rambaran at the Georgetown Public Hospital Corporation.

**What will happen during the study?**

I'm inviting you to do a one-on-one interview that will take about an hour. I will take handwritten notes to record your answers to make sure I don't miss what you say. I will also record the interview although only a research assistant and I will access this recording.

**Are there any risks to doing this study?**

The risks involved in participating in this study are minimal. You might find some questions uncomfortable to answer and you might find it uncomfortable telling me personal things about yourself. Whatever you tell me is completely confidential. You may worry about how others will react to what you say. No one else will know what you say. You do not need to answer questions that make you feel uncomfortable or that you do not want to answer. And you can stop taking part at any time. I describe below the steps I am taking to protect your privacy.

**Benefits:**

It is unlikely that there will be direct benefits to you, however, by better understanding the experiences of learners and faculty members in the program, we can improve the program in the future so that it is more impactful.

I will keep the information you tell me during the interview confidential. Information I put in my report that could identify you will not be published or shared beyond the research team unless we have your permission. We will not use your name anywhere.

Any data from this research that will be shared or published will be the combined data of all participants. That means it will be reported for the whole group not for individual persons.

**Voluntary participation:**

- Your participation in this study is voluntary. You can decide to stop at any time, even part-way through after we have started for whatever reason. If you decide to stop participating or if you don't want to participate, there will be no consequences to you. If you decide to stop we will ask you how you would like us to handle the data collected up to that point. This could include returning it to you, destroying it or using the data collected up to that point. If you do not want to answer some of the questions you do not have to, but you can still be in the study.
- If you have any questions about this study or would like more information you can talk to Dr. Rambaran.

**Consent questions:**

- Do you have any questions or would like any additional details? *[Answer questions.]*
- Do you agree to participate in this study knowing that you can withdraw at any point with no consequences to you?  
*[If yes, begin the interview.]*  
*[If no, thank the participant for his/her time.]*

## Appendix F Survey Results

Background Information							
ID#	Q1 Age (numeric value)	Q2 Sex (1 = male, 2 = female)	Q3 Hometown (1 = rural; 2 = non rural)	Q4 Married/Common Law (1=yes; 2= no)	Q5 Children? (1=yes; 2= no)	Q6 Year of Grad (numeric value)	Q9a - Current Role
G01	37	1	2	1	1	2008	Fellowship
G02	34	1	2	1	1	2009	***
G03	39	1	2	1	1	2008	***
G04	33	1	2	1	1	2011	Junior Registrar
G05	36	1	2	1	2	2009	Registrar
G06	34	1	2	1	2	2010	***
G07	39	1	2	1	1	2008	Senior Registrar, Resident of another department
G08	*	1	1	1	1	2008	Senior Surgical Registrar
T01	**	1	1	**	**	2015	Trainee
T02	30	1	2	2	1	2015	Trainee



Location			
ID#	Q7 Regional Training Locations (text)	Q8 -Other Areas	Q9 -Current Practice Location (text)
G01	Linden	GPHC; Linden; UWI	Guelph, St. Joseph's Hamilton
G02	Suddie	GPHC, London (UK) - Fellowship	GPHC
G03	West Dem	GPHC, Fellowship in Ottawa	GPHC
G04	Linden	GPHC	GPHC
G05	New Amsterdam	GPHC	GPHC
G06	New Amsterdam	GPHC	GPHC
G07	West Dem **	GPHC	GPHC
G08	Bartica	GPHC	GPHC
T01	NA	GPHC, National Psychiatric Hospital, New Amsterdam, Skelton District Hospital	GPHC -
T02	NA	GPHC	GPHC

Bond Scheme				
ID#	Q10 Currently Bonded? (1=yes; 2= no)	# of Bonded Years Total	# of Bonded Years Remaining	Q10a-Previously bonded? (1=yes; 2= no)
G01	2	0	0	2
G02	2	1.5	0	1
G03	2	1	0	2
G04	2	1	0	2
G05	2		0	
G06	2	0	0	2
G07	2	1	0	1
G08	2	0	0	2
T01	1	5.5	5.5	2 (Cuba)
T02	1	6	6	2 (Cuba)

ID#	Q11 - Preparedness for current practice (1 definitely not - 5 definitely)	Q12 -% Cases able to handle (1=0-24; 2=25-49; 3=50-74; 4=75-100)	Q13 Skills relevant for under resourced areas (1 strongly disagree -5 strongly agree)	Q14 -Focus on local conditions (1 strongly disagree -5 strongly agree)
G01	4	3	5	5
G02	5	3	5	4
G03	4	4	4	5
G04	5	4	5	5
G05	4	4	2	4
G06	4	4	4	5
G07	4	5	5	5
G08	5	4	2	3
T01	5	4	5	4
T02	4	3	5	4

1 definitely not; 2 somewhat unprepared; 3 unsure; 4 somewhat prepared; 5 definitely

1=0-24%; 2=25-49%; 3=50-74%; 4=75-100%

1 strongly disagree; 2 somewhat disagree; 3 undecided; 4 somewhat agree; 5 strongly agree

1 = very unsatisfied; 2 = somewhat unsatisfied; 3=undecided; 4=somewhat satisfied; 5=very satisfied

ID#	Q15A -Satisfaction with Research (1=very unsatisfied, 5=very satisfied)	Q15B - Satisfaction with local career options	Q15C- Satisfaction with career development	Q15D - Satisfaction with opportunities for involvement in program
G01	3	4	5	3
G02	4	4	4	5
G03	3	4	4	4
G04	4	5	1	5
G05	2	1	2	3
G06	2	4	2	4
G07	4	4	4	5
G08	3	4	2	4
T01	2	4	4	4
T02	2	2	2	3

ID#	Q16 -Prestige rural sector (1 strongly disagree -5 strongly agree)	Q17 -Prestige - public health sector (1 strongly disagree -5 strongly agree)	Q18 -Credibility due to CAGS (1 strongly disagree -5 strongly agree)	Q19 - Responsibility (1=too little, 3=too much; 4=undecided)
G01	1	4	5	2
G02	3	4	5	2
G03	5	5	5	2
G04	5	5	5	2
G05	1	4	5	2
G06	4	4	5	2
G07	5	4	5	2
G08	5	5	5	2
T01	5	5	2	2
T02	5	5	5	2

1 strongly disagree; 2 somewhat disagree; 3 undecided; 4 somewhat agree; 5 strongly agree  
1= too little responsibility; 2=enough responsibility; 3= too much responsibility; 4=undecided

ID#	Q20 -Stress Levels (1=very low; 5 = very high)	Q21- Work Life Balance (1 strongly disagree -5 strongly agree)	Q22 -Morale (1=very low; 5 = very high)	Q23 -Inclination to rural practice (1 strongly disagree -5 strongly agree)
G01	3	5	5	*
G02	3	5	3	1
G03	3	4	4	4
G04	3	4	4	5
G05	5	1	2	4
G06	4	5	4	4
G07	4	2	5	4
G08	3	2	4	2
T01	3	4	4	5
T02	3	1	2	NA

1=very low; 2-low; 3=average; 4=high; 5=very high

1 strongly disagree; 2 somewhat disagree; 3 undecided; 4 somewhat agree; 5 strongly agree

ID#	Q24 -Influence of teachers (1 strongly disagree -5 strongly agree)	Q25 -Only Option (1 strongly disagree -5 strongly agree)	Q25A - Acceptable alternatives (text)
G01	2	5	UWI; abroad
G02	4	1	Caribbean, North America, Europe
G03	4	1	UWI
G04	3	4	**
G05	4	2	Caribbean
G06	5	1	Leave Guyana
G07	5	1	Jamaica, Trinidad
G08	5	4	UWI
T01	5	2	**
T02	2	5	Cuba

## **Appendix G**

### **Codes at “Affect”**

[Internals\F023](#) references coded, 2.40% coverage

Reference 1: 1.54% coverage

So if they are at GPHC, they are given a lot of responsibility. I can't really speak for what happens on the general surgery wards. I know that they take a lot of responsibility on, especially on call and so on. The consultants don't necessarily have to be present. They take on a lot of top cases.

Reference 2: 0.62% coverage

And overall, they've [the graduates have] you know improved morale even among the younger colleagues that we have.

Reference 3: 0.24% coverage

They feel like they are doing most of the work.

[Internals\F041](#) reference coded, 0.24% coverage

Reference 1: 0.24% coverage

They get academic satisfaction

[Internals\G014](#) references coded, 0.63% coverage

Reference 1: 0.05% coverage

There was no big stress

Reference 2: 0.10% coverage

It [the morale] was very high then. Very high.

Reference 3: 0.12% coverage

Yeah, the morale is definitely low to zero right now.

Reference 4: 0.35% coverage

Z: Why would I go there [regional setting]? I think you can make a bigger difference in the regions. And again you probably feel appreciated for what you do.

[Internals\G022](#) references coded, 0.55% coverage

Reference 1: 0.44% coverage

I don't remember any great degree of enthusiasm or any particular low spots. So that's why I would go with average [morale].

Reference 2: 0.11% coverage

I didn't feel very encouraged

[Internals\\G03](#) 1 reference coded, 0.52% coverage

Reference 1: 0.52% coverage

J: What made you stay then? M: Satisfaction. Job satisfaction. It's a good work environment.

[Internals\\G04](#) 1 reference coded, 2.00% coverage

Reference 1: 2.00% coverage

J: What are some of the frustrations here? R: Um, booking time for cases. You don't get cases done at a proper time mainly because you don't have enough anesthetists. And they don't have enough operating rooms. Basic labs and radiological investigations take a long time to come back. So it's a bit frustrating in some aspects.

[Internals\\G07](#) 2 references coded, 0.44% coverage

Reference 1: 0.13% coverage

Sometimes it can feel overwhelming [the amount of responsibility]

Reference 2: 0.31% coverage

It was very demanding [balancing work life and personal life]. You see, because we were the first we had no –all the responsibility was held on our shoulders.

[Internals\\G08](#) 5 references coded, 1.89% coverage

Reference 1: 0.49% coverage

And then we arranged it in such a way that you do your general surgery the more rigorous rotation then you take a break and go off service to another department for two months and then you come back.

Reference 2: 0.09% coverage

In my day, it was high [the morale].

Reference 3: 0.28% coverage

S: Exactly. It's getting frustrating because [you're doing the job] you're just not being recognized for it.

Reference 4: 0.31% coverage

It gives me this feeling of satisfaction that you know, somebody has done it for you and you can do it back for somebody else.

Reference 5: 0.73% coverage

Isn't there a bit of pressure on you to stay now –because you're the surgical specialty expert? Like, what would they do? S: Actually, it does indirectly. I mean my family tells me about it, my friends tell me about it. They can see me being frustrated about it, but I see it is hard to take leave

[Internals\\G09 Update Report](#)1 reference coded, 0.70% coverage

Reference 1: 0.70% coverage

A good professional relationship with co-workers was developed and moral was lifted.

[Internals\\P01](#)1 reference coded, 0.40% coverage

Reference 1: 0.40% coverage

So you're understaffed and overworked. And you don't have the tools and implements you need to work.

[Internals\\P02](#)1 reference coded, 0.17% coverage

Reference 1: 0.17% coverage

You feel like you're doing useful things and so this is important.

[Internals\\T01](#)1 reference coded, 1.33% coverage

Reference 1: 1.33% coverage

Because either way if you add up all these years on –I mean people's motivation to work the amount of enthusiasm they are going to put into their work after a certain time –that will depreciate very quickly when you realize you're working in poor conditions. And you're doing everything you can. The incentives are poor; your outlook of getting better is poor. So you're sitting in a dark place and you're looking at a dark place –it's hard to be in a good mood.

## **Appendix H**

### **Codes at “Career Growth and Options”**

[Internals\\F01](#)10 references coded, 10.92% coverage

Reference 1: 2.36% coverage

Well I think they should have a clear path ahead. Because in one or two years when they finish their diploma that seems to be clear, up to the diploma. After that, they are all very nice and they don't seem to want to say anything against the program. But when I say “what are your plans, what are you trying to do?” They say “Well I'm trying to hone my skills” Some of them are looking to see if they could do a fellowship.

Reference 2: 0.90% coverage

I don't see that the [career] pathway is too clear. And the truth of it is that not one -even from the first batch –not one has moved on from having the diploma.

Reference 3: 1.52% coverage

For the surgery program, I think it's not that it's difficult [for teaching opportunities]. But people have been doing it –let's say the senior people have been doing the teaching for a while. Now that there are new ones –I think there should be a lot of opportunity

Reference 4: 0.62% coverage

You've taken them [the trainees] to a certain level then what? So these guys are thinking I want to go ahead.

Reference 5: 1.29% coverage

So what is happening is those who have left they haven't left just to go on a nice Caribbean island because they don't like it in Guyana. When you speak with all of them, they don't have a problem with Guyana. They want training.

Reference 6: 0.70% coverage

Some of them have even started over from the beginning. Which goes to show how much they want this thing [accreditation].

Reference 7: 0.40% coverage

There shouldn't be a big gap between doing a Diploma and the next step.

Reference 8: 1.29% coverage

And I think most of them say I'm going to try to be the best surgeon I can be here. And there are lots of opportunities. And even that, they are pushed to be active as if they are specialist. So for some of them, that might be enough.

Reference 9: 0.53% coverage

When they finish their diploma they should be able to say so how do I get to be a specialist now?

Reference 10: 1.30% coverage

I plan to stay involved continue doing the teaching. Because it is interesting –these are the people that we work with. So I try to tailor my teaching so that when they come – I always tweak it because I see what their weakness is.

[Internals\F029](#) references coded, 8.22% coverage

Reference 1: 1.22% coverage

So they've kind of made a lot of effort themselves to get places –so there's some kind of networking going on and that might have been helpful to them getting to where they have but a lot of the effort comes from them at least initially.

Reference 2: 0.56% coverage

They think that -where they have come is a long way but where they are now is where they are expected to stay.

Reference 3: 0.50% coverage

These guys who were motivated to join the program in the first place may be motivated to do more

Reference 4: 0.32% coverage



I do want to continue teaching, but I'm not sure beyond that.

Reference 5: 2.02% coverage

I think that if the registrars' feel like it's not all on them to go further or they are actually doing something bad in wanting to further their studies, that would be helpful. If they could get the support of the guys like Dr.\*\* and so on. Recognize that this is something the graduates will want, and support them, and not make them feel like it's a bad thing that they shouldn't try it.

Reference 6: 0.92% coverage

Yeah, if you're going to encourage people to do this amount of training then you have to recognize that they are going to want to do more and not make them feel like the bad guys.

Reference 7: 1.07% coverage

And if they want to leave even for a little while to pursue their studies, it's a fight. And we're not sure if they'll be paid their salary or what's going to happen to them. The support is really not there.

Reference 8: 0.96% coverage

They need a clear path to say you're a postgrad from this program we need these things here in order to be a junior consultant or a full time consultant. It feels just like you're stuck.

Reference 9: 0.65% coverage

And that might be one of the reasons why people would leave if people feel like there isn't enough upward motility for them.

[Internals\F03](#) 10 references coded, 12.69% coverage

Reference 1: 0.88% coverage

The second point is that the HRH capacity is building meaning the trainees are maturing and graduating.

Reference 2: 1.89% coverage

We –concurrently it is an education system that is being built –both at the undergraduate level and now at the postgraduate level. So there are opportunities for them to also have academic responsibilities for the program.

Reference 3: 0.67% coverage

So most of the graduates have to come back and become the faculty for the future.

Reference 4: 1.10% coverage

So some work has to be done at the level of the University of Guyana and the hospital in terms of designations for the academic staff.

Reference 5: 0.64% coverage

We have to strengthen the part where they get a formal university position.

Reference 6: 0.92% coverage

Continuing education is implicit in that some of it has to be from their own self-directed resourcefulness.

Reference 7: 1.57% coverage

We are also getting fellowship opportunities overseas where they have been getting people shorter and sometimes even longer fellowships overseas. So there is continuing education.

Reference 8: 1.84% coverage

So the retention is being driven by the fact that they are in the program, and the fact that they have graduated from the program they are being absorbed by higher levels within the hierarchy of service and academically.

Reference 9: 2.11% coverage

And then they are getting career paths. Which is satisfactory so they stay. And those career paths are both at the service level and also they are getting opportunities in the academic pathways. So their whole career package is improved and enhanced.

Reference 10: 1.08% coverage

Even those these career pathways and opportunities [exist] there are some of them that will want to do a higher specialization.

[Internals\F047](#) references coded, 8.79% coverage

Reference 1: 0.64% coverage

They get basic training so later on they can be absorbed for specialist training also.

Reference 2: 3.43% coverage

For example, we are in the process of getting *specialty* fellowship program with Name. So one of the candidates who already got a diploma in general surgery is working with us as a registrar. So because of that experience in general surgery and his knowledge of *surgical specialty* he is very swift. So we are giving him the benefit of one year. So we are reducing one year from the fellowship program so that's helping him and other candidates for other specialties.

Reference 3: 1.57% coverage

So they've [the graduates have] been absorbed as a registrar in our subspecialty. So that gives them a little jump from GMO to registrar. Once they get a diploma in subspecialty then they become junior specialist.

Reference 4: 1.12% coverage

See, after a diploma, they are still –they are not too happy because they don't think the diploma is enough to get good prospects or future appointments.

Reference 5: 0.82% coverage

So once they get a fellowship like other departments ... they think it will be a good jump to become a specialist.

Reference 6: 0.56% coverage

They are talking –there are discussions at a higher level, academic-wise.

Reference 7: 0.65% coverage

They think once they get Masters they will be more recognized in the Caribbean at least.

[Internals\\G01](#) 13 references coded, 5.46% coverage

Reference 1: 0.12% coverage

I'm actually...now doing a general surgery residency.

Reference 2: 0.31% coverage

I'm not totally satisfied [with career options]; I think that is one of the downfalls. I mean that is the major problem with the program.

Reference 3: 0.57% coverage

I went to the best high school in Guyana. So, to say that people with this type of let's use the word qualifications or this type of aspiration would stick in the community and not want professional development –I think that was one of the flawed thinking.

Reference 4: 0.60% coverage

I actually did a bit of research and presented a paper on brain drain. At some point at some conference or something like that. And the number one reason that professionals leave has nothing to do with money and salary. It's professional development. It's a myth.

Reference 5: 0.29% coverage

I was senior registrar. M: Oh you were? G01: Yeah. M: And that's the highest you can go? G01: That's the highest I can go with a diploma.

Reference 6: 0.45% coverage

There's no way I could have been a consultant. And there's no way I would go through all of my life being bossed around by people. For what? When one, I have the IQ and the brain power to do further things

Reference 7: 0.15% coverage

Yeah I think the graduates outgrow –we kind of outgrow the diploma.

Reference 8: 0.40% coverage

Umm essentially when I go back I certainly want to work at GPHC. And at the University. I would love to get a teaching post at the University to give back there [at the University].

Reference 9: 0.93% coverage

Through the program you were able to make contacts with CAGS, Canadian surgeons. And lots of guys through those relationships were able to develop –for example, *Name* came for three months through –what was his name again? I can't remember his name, but he was one of the CAGS surgeons, he went to *location abroad* and did 3 months in *specialty*, *Name* did *specialty*. And all of that was linked through the program.

Reference 10: 0.55% coverage

They just need to make the stupid diploma into a degree. Whatever you want to call it –a degree in surgery, a Masters, a M.Med. What the guys want is a path to becoming a consultant. So that you can work independently. That's what the guys want.

Reference 11: 0.39% coverage

Nope. Which sane person is going to say “I'm going to do a diploma when there are like five other programs that are a full degree and when you finish, you're a consultant.”?

Reference 12: 0.36% coverage

I mean because you're not just –the guys who are still there, they are able to have senior leadership positions in the health sector because of that diploma.

Reference 13: 0.35% coverage

Race you are, in terms of getting key positions. But certainly the Dip Surgery gives you room at the table. Or a place at the table [to get key positions].

[Internals\\G026](#) references coded, 2.87% coverage

Reference 1: 0.56% coverage

Because of the surgical training, largely because of the program and whatever spinoff I'm now senior registrar and so I have reasonably good job security.

Reference 2: 0.37% coverage

But I hope that unless I really have to I would strongly prefer to live in Guyana to further my training.

Reference 3: 0.60% coverage

I think that in my specific scenario a little bit more can be done specifically in the area of *specialty*, by current *specialists* to better foster my advancement in *specialty*

Reference 4: 0.58% coverage

And based on this experience is why I've been accepted to do, you know, based on the program, is why I've had a full fellowship at *place abroad*

Reference 5: 0.48% coverage

Secondly the opportunity for growth –for professional and personal growth. I think it's probably perceived to be better elsewhere

Reference 6: 0.28% coverage

They need to offer opportunity for formal personal and professional growth.

[Internals\\G03](#) 3 references coded, 1.99% coverage

Reference 1: 1.30% coverage

No, I firmly believe that the program gave me the base to actually develop what I have learned. In that respect, I saw being out of the rural as a good stepping-stone to being on your own and develop your surgical career from there.

Reference 2 0.22% coverage

Goal ultimately is to practice surgery

Reference 3: 0.48% coverage

Batch mates and so on. All of us from the first batch who were here are senior members

[Internals\\G04](#) 7 references coded, 6.84% coverage

Reference 1: 0.56% coverage

Basically we've completed the diploma program and we've shown that we can do more than that.

Reference 2: 1.28% coverage

It was good in that you feel you're doing something more. And you're achieving a higher qualification. Not very high because you're just achieving a diploma and you're always questioning what is the next step.

Reference 3: 0.62% coverage

Well, the long-term goal is to become a fully qualified general surgeon, to advance above a diploma.

Reference 4: 0.68% coverage

So things I would like to see done –things like laparoscopic surgeries –scopes. If we can have rotation in those.

Reference 5: 1.48% coverage

The disadvantages what might contribute to the brain drain is that after finishing you create someone who has a diploma in surgery but the experience that they have had is that they know they can do better or more. And that person looks for more.

Reference 6: 0.95% coverage

You don't want to stay at the same level so you will look for ways out to get a degree – and if it's [the diploma] not done here, you will look at other countries.

Reference 7: 1.25% coverage

Because the graduate from Cuba who specialize in surgery with a degree that is a Masters, comes back and they become higher. They get a higher position then you do. Like a consultant. So we don't feel secure.

[Internals\\G05](#)1 reference coded, 0.32% coverage

Reference 1: 0.32% coverage

The decision to advance your career is not based on anything objective

[Internals\\G06](#)1 reference coded, 1.87% coverage

Reference 1: 1.87% coverage

Right now, my career goals are stagnant. It's hard; right now it's a bit stagnant. Right now I don't have any choice.

[Internals\\G07](#)4 references coded, 1.89% coverage

Reference 1: 1.12% coverage

A lot of the guys who have finished for example, myself, X and Z. We are in subspecialties that has very little do with what we were trained in. So I am in *Specialty*. We did some teaching in *Specialty* in the postgrad program, but it wasn't as detailed as for a full speciality. It was just the emergencies and how to deal with common *specialty* problems. So I think this question [is there opportunity to advance your career] would be more for the guys who have general surgery as their focus. But if it applies to just general surgery that we were taught I would say very satisfied.

Reference 2: 0.32% coverage

I would say I'm somewhat satisfied [with career development] because despite [everything] you can still makes some headway and you can still assert yourself.

Reference 3: 0.22% coverage

And it [completion of career] can never be completed there [in a rural setting]. You have to come back here [GPHC].

Reference 4: 0.23% coverage

So in terms of that. I think most of those doctors would want an end point or to find an end point in their career training.

[Internals\G08](#)16 references coded, 6.92% coverage

Reference 1: 0.22% coverage

And then *Name* is doing *specialty*, a fellowship. I did *specialty*. *Name* did *specialty*.

Reference 2: 0.12% coverage

CAGS that actually helped us with those links.

Reference 3: 0.60% coverage

So career wise I'm not sure how this is going to happen, but I want to actually get something academically in *specialty*. Because most of what I have is based on experience in what I do. I don't have any real solid thing –except the fellowships.

Reference 4: 0.96% coverage

So with that [certification as a specialist] I can, right now I do the work as the specialist surgeon here. I do all the academic stuff. I teach *specialty* surgery. I operate. I do all the administrative stuff. But because I don't have that [certification], I can't really apply for the job as it is with the Health Department. I go to all the meetings, so I just can't do anything beyond.

Reference 5: 0.30% coverage

Here [public] I get to teach because in private you just go work, do your cases and leave. You don't have students around.

Reference 6: 0.24% coverage

I want to be part of the teaching. I want to be part of both the undergrad and postgrad teaching.

Reference 7: 0.49% coverage

So like I was on the *committee name*, I'm currently on the *committee name*, and I'm also on *name of board*. So you get to raise concerns, you get to make changes.

Reference 8: 0.26% coverage

Professionally I don't see myself going anywhere except maybe to go somewhere to study then come back.

Reference 9: 0.87% coverage

I think we should take it up to a Master's level and after that well of course, they would have to design it in such a way that the guys who already graduated can do some – M: Teaching? G08: No no because we will still be a diploma level because we've already graduated. So we need some upgrading program where we can do a specific module to get to that level.

Reference 10: 0.15% coverage  
Senior positions do exist. And they're vacant right now.

Reference 11: 0.39% coverage  
There's not much to retain people because a lot of people, at least if you show the initiative to do postgraduate, it means that you have a quest to learn more

Reference 12: 0.28% coverage  
Some people will not be satisfied with being just with the diploma. And they will want to go on to the next level.

Reference 13: 0.39% coverage  
Personally if I were very interested in general surgery, I would not have been here I would have probably gone to become a general surgeon and then come back.

Reference 14: 0.13% coverage  
Yeah, I did a fellowship at *Place abroad*

Reference 15: 0.37% coverage  
Yeah I guess [the program influences ability to move towards more rewarding positions]. I mean the program has gotten me to *Place abroad* twice –

Reference 16: 1.14% coverage  
So one of the lecturers that came down, had an opening. They had a grant for a scholarship for someone from a LMIC to go out there. It was supposed to be nine months, for the complete fellowship but they actually divided it. I got 4 months, and somebody else got 4 months to do something else. So I did 4 months in *specialty*, and the same time *Name* did 4 months in *specialty*. And there was even some money left back where I went back for another stint afterwards.

[Internals\\G08 \(1\)](#) 6 references coded, 8.59% coverage

Reference 1: 0.43% coverage  
People are ambitious, and, they would want to, not work in Guyana for the rest of their lives

Reference 2: 1.32% coverage



Because, the guys that I know, who've left from our program, they basically left because they wanted to get, I mean, they wanted to be recognized as a true general surgeon with the qualifications to say that they are. If that was available here, don't think any of them would have left.

Reference 3: 2.23% coverage

I mean, if you qualify these guys and make them the senior surgeons, they would be willing to take on more responsibility. They would be willing to take on cases that, you know, they wouldn't be afraid to say, you know, I'm not qualified to do this, and if I should do it, I have no, you know, I have no defense if something goes wrong. But if you make this guy a qualified general surgeon, and then, he does something, and there's a complication that results, he can defend himself.

Reference 4: 1.36% coverage

The diploma program, I supervise residents on call, because I'm not normally on general surgery service, so, I do general surgery service call, so I supervise the residents there, I teach them, I do discussions and cases on-call and I operate with them and show them some surgical skills

Reference 5: 1.47% coverage

So it helps me personally so if I teach them how to resuscitate a born patient they don't need to call me at 12 o'clock in the night. I can come in the following morning and see, I mean, a reasonably resuscitated patient. So it benefits me, and it benefits the patients. So that's basically the main reason why I teach.

Reference 6: 1.77% coverage

M: But are there any other benefits to give your career, they don't have a structure in place where faculty, or people who are involved get promoted, there's no such system.  
G08: No. Because I'm really not employed, I'm employed with the university, the teaching of the undergraduate program, the MBBS program, but I haven't got an appointment to teach in the postgrad program.

[Internals\\G09 - Update Report](#)1 reference coded, 0.73% coverage

Reference 1: 0.73% coverage

The experience and confidence gained can't be understated; those guys [CAGS] really helped a lot.

[Internals\\G01 Report](#)1 reference coded, 0.70% coverage

Reference 1: 0.70% coverage

I became a part-time lecturer concentrating on surgery and was satisfied with the 90% pass rate in surgery at this year's examination.

[Internals\\P01](#)2 references coded, 1.45% coverage

Reference 1: 1.21% coverage

But I think the knowledge, opened up their minds and they realize, there's a lot more out there that we need to learn, and then I think when they get exposed to going to international conferences, and they see, okay, I have a diploma in surgery, oh, okay, well I have my Masters, so, you know. How do they compare.

Reference 2: 0.23% coverage

It might've been educational opportunities for yourself

[Internals\\P023](#) references coded, 2.70% coverage

Reference 1: 1.79% coverage

And this is why we have to grow the program. And this is where the specialization in a specialist area is important. So you are trained as a surgeon, and I'm sending you to Israel for three months to learn laparoscopy, I'm sending you to China to learn laparoscopy, but now some of them have been trained in laparoscopy so here, you are trained in laparoscopy and you do abdominal laparoscopy, I'm sending you to do laparoscopy of the thyroids and that type of thing. So there is always growth. Or I'm bringing some guys that will train you, you're going to work with this guy for the next 2 weeks because I've brought him for this purpose to teach something you don't know. And that keeps the interest.

Reference 2: 0.73% coverage

We had a clear vision that the people who take up a senior position in the health sector in delivering of services are from this cadre of trained people. So that outside of just improving their skills, they also could take on a leadership role in the University, in the hospitals etc.

Reference 3: 0.17% coverage

So some of these people could teach, they could become professors.

[Internals\\G02 Report](#)1 reference coded, 0.79% coverage

Reference 1: 0.79% coverage

Co-supervised intern research project

[Internals\\T01](#)12 references coded, 9.10% coverage

Reference 1: 0.52% coverage

But for personal development at some point, you would like to advance your maximum of your capacity. So there is just too much gray area and not too much being offered in that sense.

Reference 2: 0.91% coverage

You don't get the impression that you get a plan –ok you're going to do this for a certain amount of years, then you're going to come back for a little more, then you're going to go off for better service. You know, there's no plan. It seems as though you're trained to a point and then you know, you get shoved out there.

Reference 3: 1.50% coverage

Well, one, I already did my undergrad in Cuba. And for some reason, what I notice here is that a postgrad from Cuba even though it's exceptional, for some reason in these countries, it comes under a lot of scrutiny. So I find some of the guys that I know they did postgrad in Cuba they are now subjected to evaluations and that kind of stuff. So I'm thinking it's better if you are, it seems that some of the guys who studied through this program have access to Canada and some of these places –so it seems like a better option.

Reference 4: 0.30% coverage

I want to serve a bit. I want to get out and get some of that alone, on my own two feet practical experience.

Reference 5: 0.67% coverage

And at that point I think I will be able to strongly decide if I were to specialize to one particular field. I think that time [working alone in regional setting] will give me a chance to figure it out. For now, I like general surgery.

Reference 6: 0.68% coverage

Usefulness as in there would be a time when you will gain that much experience, you will probably have done more further training and you will be more useful say at Georgetown or at a central setting than you would be in a rural setting.

Reference 7: 0.42% coverage

Then there would be someone else who would have been like me, at that time, that would come back and take that role and develop just the way I did.

Reference 8: 0.61% coverage

But honestly I can't stop. I always have to get a challenge even if honestly it's not something with a higher purpose. I always like a challenge. So if I'm good at this, I won't stop until there's nothing left to do.

Reference 9: 0.57% coverage

We get a lot of volume, but we would like to precise our skills. So that's why a lot of people join the program they were thinking we would get a lot of supervision and tutoring from the CAGS surgeons.

Reference 10: 0.64% coverage

I think it [the Program] has definitely helped. From undergrad to now you have your undergrad knowledge and skills and added to that you have your surgical skills which as we discussed is more useful in a rural setting.

Reference 11: 1.92% coverage

I think the program is weak in retaining graduates. And I feel like you said, from the interviews it's not a lack of motivation –people want to stay –there's no lack of that. The problem is, like I said when you begin this program you begin as an undergraduate. You hardly know how to close a laceration. At the end of the day, a lot of the guys learn skills that even third year residents at some prestigious university... have. So when you compare yourself to a lot of the colleagues that have [these skills], you realize that you have the potential that for some reason is not being maximized. So it invokes that personal sense of not reaching your full potential.

Reference 12: 0.36% coverage

You've been here for 5,6,7 or ten years. So are you going to stay here- the program offers nothing to step up, a way forward.

[Internals\\T023](#) references coded, 1.86% coverage

Reference 1: 1.26% coverage

After the program -I'm from *rural region* and looking forward to going back to my hometown. There, I can practice in *Regional Hospital* and they are currently making preparations to open a new theater in the *District Hospital* so I can work there as well.

Reference 2: 0.34% coverage

Yes, I plan to continue my career there [in *Regional Hospital*] as a surgeon.

Reference 3: 0.26% coverage

So we don't know after graduation how things will be

## **Appendix I**

### **Codes at “Capacity Building”**

[Internals\\F023](#) references coded, 3.30% coverage

Reference 1: 1.54% coverage

So if they are at GPHC, they are given a lot of responsibility. I can't really speak for what happens on the general surgery wards. I know that they take a lot of responsibility on, especially on call and so on. The consultants don't necessarily have to be present. They take on a lot of top cases.

Reference 2: 1.02% coverage

The graduates of the program are teaching most of the modules already. And *graduate name* is I believe going to take over the director's position. The local one –the director's position.

Reference 3: 0.74% coverage

And I think in a postgrad program where people are working and studying, you don't really –I mean you're getting service out of them anyway.

[Internals\\F03](#)8 references coded, 11.48% coverage

Reference 1: 0.88% coverage

The second point is that the HRH capacity is building meaning the trainees are maturing and graduating.

Reference 2: 1.89% coverage

We –concurrently it is an education system that is being built –both at the undergraduate level and now at the postgraduate level. So there are opportunities for them to also have academic responsibilities for the program.

Reference 3: 0.68% coverage

The original intent was always that these programs should be self-sustainable.

Reference 4: 0.67% coverage

So most of the graduates have to come back and become the faculty for the future.

Reference 5: 2.10% coverage

All the activities for the program in terms of the graduates –in terms of the students the students are involved in feedback about the program, curriculum management, what they might want to change –where they are having concerns we try to adjust it.

Reference 6: 1.31% coverage

Hopefully as time goes on they will take over at every level as the directors of the program, faculty teaching different components of the program and so on.

Reference 7: 1.84% coverage

So the retention is being driven by the fact that they are in the program, and the fact that they have graduated from the program they are being absorbed by higher levels within the hierarchy of service and academically.

Reference 8: 2.11% coverage

And then they are getting career paths. Which is satisfactory so they stay. And those career paths are both at the service level and also they are getting opportunities in the academic pathways. So their whole career package is improved and enhanced.

[Internals\\F04](#)1 reference coded, 1.54% coverage

Reference 1: 1.54% coverage

We take them to theater, in clinics; we put them on call duties. So we also get help. So let's say consultants, clinic staff –they are also satisfied with their performance because they also get help from them.

[Internals\\G01](#)12 references coded, 5.97% coverage

Reference 1: 0.27% coverage

And they could have used us more. The region underutilized the graduates. They could have gotten much more out of us

Reference 2: 0.33% coverage

G01: I certainly want to work at GPHC. And at the University. I would love to get a teaching post at the University to give back there [at the University].

Reference 3: 0.62% coverage

M: And you said teaching at the University of Guyana. So that's something you would like to do? G01: Yeah. M: And is that easy to get? Or is it competitive? G01: Um I would say it's easy to get because again the brain drain, for someone who is coming back with the qualifications I have

Reference 4: 0.78% coverage

So when this guy graduates from the University of Guyana, he does one-year internship and then he might work one year as a general medical officer (GMO). And if he gets into one of these programs which is 4 and 5 years. That's 5 years you have that person for in your country. There's nothing else that's going to keep anybody for 5 years in Guyana.

Reference 5: 0.16% coverage

Yeah, I don't mind being faculty in the program. Not a problem at all.

Reference 6: 1.29% coverage

But certainly faculty to teach a module, certainly mentoring the residents and teaching them operative skills in the operating room. I see that [as opportunities for involvement in the program] very easily. M: And do you think there are opportunities that should be created? G01: I think so. And I don't think it's going to be a problem. That was supposedly one of the problems mentioned, why it wasn't a degree. Because we don't have the local faculty. So hopefully with me going back, if I finish. And you know, guys like *Name* if he goes back there should be enough faculty.

Reference 7: 0.98% coverage

The opportunity that the program has which they're missing is that there are thousands of these Cuban graduates. And the big elephant in the room is that Cuban graduates are worse off than UG graduates in terms of mobility. You can't go with a Cuban degree anywhere except Cuba and Guyana. Even in Jamaica the guys have to rewrite the exam. Even in Jamaica. Think about that. Even in Jamaica! They have to write back the Caribbean exam.

Reference 8: 0.42% coverage

Just imagine if you have a proper surgery program. You have tons of applicants. So most of these Cuban guys are doing the medicine program, obstetrics program, the emergency program.

Reference 9: 0.23% coverage

When *Name* did his specialty in Canada, he came back and the surgical *specialty* program started at GPHC

Reference 10: 0.52% coverage

I'm not saying I'm not going to go back and just be like a little mouse, but then at some point, you have to say, how much you want to do, you're not so sure. But I certainly have the energy and passion to do it. But we'll see, time will tell.

Reference 11: 0.23% coverage

So there's not lots of people in the surgery program whom all they are doing is teaching surgery. Nope.

Reference 12: 0.14% coverage

So the same people are kind of circulating in different places.

[Internals\\G02](#) 6 references coded, 3.38% coverage

Reference 1: 0.56% coverage

I was given every opportunity and encouraged in every way to do audits, to do research, and [encouraged] to supervise students who were at the younger level.

Reference 2: 0.14% coverage

I do modules with the postgrad program.

Reference 3: 0.33% coverage

I am coordinator for the \*\* *training* program, I am a lecturer for the \*\* *program*.

Reference 4: 0.55% coverage

I've always been encouraged, I think, to always look at the various aspects of the health care especially in this hospital and do what I can to improve it.

Reference 5: 1.38% coverage

And I think I've actually been able to do some meaningful things. Like, write presentations or more intangible things. So, I think it's been great and that's what I really enjoy. The fact that I can, right now find things in this hospital –real things that I've actually had a significant input on. I've been encouraged to do so. That continues to be the standard. So, that's been great.

Reference 6: 0.42% coverage

I see myself as wanting to play a pivotal role in advancing the program and continuing what's already been started.

[Internals\\G03](#) 5 references coded, 3.78% coverage

Reference 1: 0.46% coverage

Just having a postgraduate training program fosters an environment of teaching

Reference 2: 0.98% coverage

Well, my career goal ultimately is to practice surgery at the highest level –at the level of a consultant. Potentially at GPHC where I continue to work...

Reference 3: 1.34% coverage

G03: Yeah, I'm actually a lecturer of two modules. I lecture *specialty* and I've done *specialty* modules. M: And what's your intended involvement? Do you plan to continue or become more involved? G03: I plan to teach.

Reference 4: 0.61% coverage

No. We are involved in curriculum planning. So teaching and curriculum development

Reference 5: 0.38% coverage

All the senior graduates are the guys who facilitate this program.

[Internals\\G042](#) references coded, 2.81% coverage

Reference 1: 1.77% coverage

M: What are those opportunities [to be involved with the UGDS program]? G04: Well, you get to teach residents. I've done one course with them and you have residents rotating under you so you get to do practical training with them. And also on call where you have residents working along with you.

Reference 2: 1.04% coverage

M: But you're still very involved with their [the surgical residents'] teaching? G04: Yeah, because I have one guy working on my team and then most calls I have one of them with me.

[Internals\\G052](#) references coded, 1.61% coverage

Reference 1: 1.23% coverage

But I think it needs to be more than just workshops in and out. I think for us to be sustainable then you have to maybe get us, the registrars up to speed in order to teach that [research] or deliver that to our future graduates. If not, then we'll just revert back to where we were.

Reference 2: 0.38% coverage

Workshops and then selecting people who can potentially teach this [research].

[Internals\\G074](#) references coded, 1.34% coverage

Reference 1: 0.46% coverage

I also run the *specialty* clinic with *Name* and do most of the *specialty*. I've been a part of a few committees. For example a part of the *committee name*, *committee name*, *committee name* and we do a lot of teaching.



Reference 2: 0.38% coverage

We teach. In terms of the general surgical program we contribute from the *specialty* side. So residents rotate with us. I've been working with Local name. And I have helped teach the module. The *specialty* module.

Reference 3: 0.26% coverage

Yeah, I've been involved. Even helping with the perioperative and some other modules. Whatever they ask me to do, I do. I never refuse.

Reference 4: 0.24% coverage

Yeah, we had to do some teaching because you were senior to them. So teaching in terms of practical and in terms of on- call.

[Internals\\G089](#) references coded, 3.89% coverage

Reference 1: 0.30% coverage

And there were two years where nobody applied to the surgery diploma, which was disappointing because we started it.

Reference 2: 0.41% coverage

A couple of us who are here, we do get involved whenever the program runs. We teach at a practical level on call or on the wards. And we all have a module assigned to us.

Reference 3: 0.28% coverage

I think we should get more involved though because I teach once and then I don't teach back for another two years.

Reference 4: 0.29% coverage

The hope is that we can come back and then we can actually stay in that program and teach and share those experiences.

Reference 5: 1.47% coverage

Um so in my day it was different. In my day, when I was training, the consultants they were not –we were the first batch so they did not leave a lot of responsibility to us because that was part of their clinical work. But now it's a little different. Because the consultants take a step back and give the residents a little more leeway to function. But in our day we weren't really that experienced with these things so we couldn't really be allowed to like what's happening now. But I guess that with *Name* there, *Name* and *Name* and everyone else the residents can do more, and they can be covered.

Reference 6: 0.26% coverage

So the guys who stayed in New Amsterdam and Linden, they actually stayed over a year after the 6 months.

Reference 7: 0.24% coverage

I want to be part of the teaching. I want to be part of both the undergrad and postgrad teaching.

Reference 8: 0.49% coverage

So like I was on the *committee*, I'm currently on the theater usage committee, and I'm also on the *board*. So you get to raise concerns, you get to make changes.

Reference 9: 0.15% coverage

The work is being done; people at my level are doing it.

[Internals\\G08 \(1\)](#) 5 references coded, 6.09% coverage

Reference 1: 0.56% coverage

But I think if it should go up to a degree program, we would attract more people, and more people are going to want to stay.

Reference 2: 2.23% coverage

I mean, if you qualify these guys and make them the senior surgeons, they would be willing to take on more responsibility. They would be willing to take on cases that, you know, they wouldn't be afraid to say, you know, I'm not qualified to do this, and if I should do it, I have no, you know, I have no defense if something goes wrong. But if you make this guy a qualified general surgeon, and then, he does something, and there's a complication that results, he can defend himself.

Reference 3: 1.36% coverage

The diploma program, I supervise residents on call, because I'm not normally on general surgery service, so, I do general surgery service call, so I supervise the residents there, I teach them, I do discussions and cases on-call and I operate with them and show them some surgical skills.

Reference 4: 0.47% coverage

Well I like teaching so, as long as it's available, as long as they need me to do it [teaching], I will.

Reference 5: 1.47% coverage

So it helps me personally so if I teach them how to resuscitate a born patient they don't need to call me at 12 o'clock in the night. I can come in the following morning and see, I mean, a reasonably resuscitated patient. So it benefits me, and it benefits the patients. So that's basically the main reason why I teach.

[Internals\\P02](#) 10 references coded, 7.02% coverage

Reference 1: 0.47% coverage

Right now, I have lost count of the number but it might be about 20 graduates from the surgical program that are out there providing service that we would not have had with the old model.

Reference 2: 0.81% coverage

So if you take the surgical program. They helped us build a curriculum. Our public health, MOH, school of medicine, GPHC professionals have worked on the curriculum development. So now you have the ability to develop a curriculum because you have learned from people who have been doing it for a hundred years.

Reference 3: 0.33% coverage

So the surgical program while we succeeded in building a curriculum also built capacity in country to develop any curriculum.

Reference 4: 1.29% coverage

Whereas our partners led the first one, the rest was led by us but did not eliminate the contributions from external partners. So that's the first thing. Secondly, whereas the first postgraduate program which happened to be surgery was delivered in a large part by our external partners, in this case from McMaster, BC, Toronto University, with a little support from other institutions, by the time we got around to the second batch, the Guyanese professionals were playing a bigger role.

Reference 5: 0.31% coverage

The certified tutors in Guyana were now doing some of the teachings that were being done by the external partner.

Reference 6: 1.79% coverage

And this is why we have to grow the program. And this is where the specialization in a specialist area is important. So you are trained as a surgeon, and I'm sending you to Israel for three months to learn laparoscopy, I'm sending you to China to learn laparoscopy, but now some of them have been trained in laparoscopy so here, you are trained in laparoscopy and you do abdominal laparoscopy, I'm sending you to do laparoscopy of the thyroids and that type of thing. So there is always growth. Or I'm bringing some guys that will train you, you're going to work with this guy for the next 2 weeks because I've brought him for this purpose to teach something you don't know. And that keeps the interest.

Reference 7: 0.73% coverage

We had a clear vision that the people who take up a senior position in the health sector in delivering of services are from this cadre of trained people. So that outside of just improving their skills, they also could take on a leadership role in the University, in the hospitals etc.

Reference 8: 0.78% coverage

So it wasn't quite parallel was the development of research. So we developed a research center and all the professionals are expected to deliver research papers. And so we have an annual research conference, which is now attended by people from Canada, the US, the Caribbean, we have awards and so on.

Reference 9: 0.17% coverage

So some of these people could teach, they could become professors.

Reference 10: 0.33% coverage

We have developed a health institute at the Georgetown Hospital that coordinates the training program so you can develop that

[Internals\\G02 Report](#) 2 references coded, 1.94% coverage

Reference 1: 1.16% coverage

Implemented the *Protocol* at GPHC

Reference 2: 0.79% coverage

Co-supervised intern research project

[Internals\\G06 Report](#) 2 references coded, 1.66% coverage

Reference 1: 1.01% coverage

The Recovery Room at NARH was created by several efforts of previous surgical residents, it is equipped, functional and currently being used by all specialities.

Reference 2: 0.65% coverage

The recovery room nurses were taught by me and *Graduate Name* using a course outlined created by *Graduate Name*.

[Internals\\T01](#) 1 reference coded, 0.31% coverage

Reference 1: 0.31% coverage

The ones who have graduated from the program, they would be the ones supervising us [surgical trainees]

[Internals\\T02](#) 1 reference coded, 0.55% coverage

Reference 1: 0.55% coverage

Because one of the guys that are willing to –after graduation could teach the modules for the other guys coming up

## **Appendix J**

### **Codes at “Unequal Opportunity”**

[Internals\\G01](#) 3 references coded, 1.05% coverage

Reference 1: 0.37% coverage

Which sane person is going to say “I’m going to do a diploma when there are like five other programs that are a full degree and when you finish, you’re a consultant.”?

Reference 2: 0.18% coverage

There’s a lot of politics, which race you are, in terms of getting key positions.

Reference 3: 0.49% coverage

He ran the emergency room for years. But now he was kicked out. Why? Because you have a degree in emergency medicine. So the first guy that graduated [from another degree program] he is a consultant leading that program.

[Internals\\G04](#)1 reference coded, 1.36% coverage

Reference 1: 1.36% coverage

Because the graduate from Cuba who specialize in surgery with a degree that is a Masters, comes back and they become higher. They get a higher position then you do. Like a consultant. So we don’t feel secure. At least I don’t.

[Internals\\G05](#)1 reference coded, 0.60% coverage

Reference 1: 0.60% coverage

I think the decision to advance your career is not based on anything objective. It’s based subjectively on what people’s opinions are.

[Internals\\G07](#)1 reference coded, 0.55% coverage

Reference 1: 0.55% coverage

Because it’s a diploma program, it’s never complete. If you want to work privately, you have to compete with other surgeons who have far higher qualifications than you. It doesn’t necessarily mean they can do more than you or that they can do it better. It’s just the way things are.

[Internals\\G08](#)7 references coded, 5.05% coverage

Reference 1: 1.38% coverage

But personally, UG was my best option. The other guys from our year that actually went to the University of the West Indies and it’s a little more difficult to get into that program because it’s a paid program –you actually have to pay to get it done. You have to get a job. You have to write their exams to get in. And then they usually take their local people first and if there are spots then they give the foreign people. So I wasn’t really prepared to go through all of that, being re-located and everything. So I agree that UG was probably my only option.

Reference 2: 0.99% coverage

I think we should take it up to a Master’s level and after that well of course, they would have to design it in such a way that the guys who already graduated can do some – M: Teaching? G08: No, no because we will still be a diploma level because we’ve already

graduated. So we need some upgrading program where we can do a specific module to get to that level. And then everybody will be a general surgeon.

Reference 3: 0.46% coverage

The 7-year program, the 7-year bond is a bond for all the post grad programs. But they haven't really considered that the other postgrad programs are 4 years, and this one is 2.5 years.

Reference 4: 0.49% coverage

So that's one of the things why people don't want to do the surgery program. Because you're saying, I can spend four years getting training in obstetrics or A&E and at the end of it, I got a Masters.

Reference 5: 0.63% coverage

So some people go for that program at the end of it-they don't mind spending the seven years but at the end of it, they get a Master's. Whereas some people look at it "why would I spend 2.5 years being bounded for 7 years and then I get a diploma at the end of it"?

Reference 6: 0.35% coverage

We do seem to be considered second rate. If somebody comes back from graduating from UWI they walk straight into a consultancy position.

Reference 7: 0.76% coverage

We have to work our way up and we have to convince people that we are good, that we've done this for so long, and we're capable of doing it. Whereas some person we don't even know their background, they just walk in hand their certificate and that's it. So I guess in that sense, we are a second rate education.

[Internals\\G08 \(1\)](#) 2 references coded, 3.75% coverage

Reference 1: 1.52% coverage

Because, it's something like, five or seven years of contract, when the program is just 2 ½ years. And at the end of the program, you just have a diploma; it's not a good trade-off. Because there are other programs now, you're four years, and at the end of it you're given an MD. And it's the same exact contract in terms of time.

Reference 2: 2.23% coverage

I mean, if you qualify these guys and make them the senior surgeons, they would be willing to take on more responsibility. They would be willing to take on cases that, you know, they wouldn't be afraid to say, you know, I'm not qualified to do this, and if I should do it, I have no, you know, I have no defense if something goes wrong. But if you make this guy a qualified general surgeon, and then, he does something, and there's a complication that results, he can defend himself.

[Internals\\T01](#) 2 references coded, 3.42% coverage

Reference 1: 1.50% coverage

Well, one, I already did my undergrad in Cuba. And for some reason, what I notice here is that a postgrad from Cuba even though it's exceptional, for some reason in these countries, it comes under a lot of scrutiny. So I find some of the guys that I know they did postgrad in Cuba they are now subjected to evaluations and that kind of stuff. So I'm thinking it's better if you are, it seems that some of the guys who studied through this program have access to Canada and some of these places –so it seems like a better option.

Reference 2: 1.92% coverage

I think the program is weak in retaining graduates. And I feel like you said, from the interviews it's not a lack of motivation –people want to stay –there's no lack of that. The problem is, like I said when you begin this program you begin as an undergraduate. You hardly know how to close a laceration. At the end of the day, a lot of the guys learn skills that even third year residents at some prestigious university... have. So when you compare yourself to a lot of the colleagues that have [these skills], you realize that you have the potential that for some reason is not being maximized. So it invokes that personal sense of not reaching your full potential.

## **Appendix K**

### **Codes at “Freedom of Education and Occupation”**

[Internals\\BRT11](#) reference coded, 0.99% coverage

Reference 1: 0.99% coverage

When they graduate from this they will get a Guyanese certificate and they will get a credited within their country, but that will not be transferrable out in many situations, and they knew that. And with eyes wide open they accepted that, to start that way.

[Internals\\F012](#) references coded, 1.99% coverage

Reference 1: 0.69% coverage

Ideally it would be good if they work in the public practice because then you get service to the maximum amount of people.

Reference 2: 1.29% coverage

So what is happening is those who have left they haven't left just to go on a nice Caribbean island because they don't like it in Guyana. When you speak with all of them, they don't have a problem with Guyana. They want training.

[Internals\\F026](#) references coded, 8.03% coverage

Reference 1: 0.63% coverage

And we're not really what I see –we're encouraging them to go. And you know, further their training and stuff like that.

Reference 2: 2.02% coverage

I think that if the registrars' feel like it's not all on them to go further or they are actually doing something bad in wanting to further their studies, that would be helpful. If they

could get the support of the guys like Dr.\*\* and so on. Recognize that this is something the graduates will want, and support them, and not make them feel like it's a bad thing that they shouldn't try it.

Reference 3: 1.07% coverage

And if they want to leave even for a little while to pursue their studies, it's a fight. And we're not sure if they'll be paid their salary or what's going to happen to them. The support is really not there.

Reference 4: 1.81% coverage

Well, the pool that they are pulling the residents from, it's made up of a lot of people who are here already. Like a lot of registrars from the program they were not really going anywhere. They are committed to health care in Guyana and they kind of just wanted an opportunity to pursue their studies, and this presented an opportunity for them.

Reference 5: 1.63% coverage

t. And one of the reasons why people don't want to join the program is because they feel like if they do join and they are bonded for let's say 5 years or however long they have to be bonded for and then another opportunity comes up for them to go and further their studies, they won't be released to be able to do that.

Reference 6: 0.87% coverage

And their intention might have been to go [study abroad] and do that and come back. But because they are bonded then they aren't able to do that. It's more difficult.

[Internals\F03](#) 1 reference coded, 1.57% coverage

Reference 1: 1.57% coverage

We are also getting fellowship opportunities overseas where they have been getting people shorter and sometimes even longer fellowships overseas. So there is continuing education.

[Internals\G01](#) 6 references coded, 1.76% coverage

Reference 1: 0.27% coverage

So that's why, the closest and the cheapest place to get degree in surgery was Institution. So that's why I moved place.

Reference 2: 0.47% coverage

It's like if you put somebody in a dessert and you offer them a half glass of water. I mean that half glass of water in retrospect is useless. But when you're there, you're going to take that half glass of water.

Reference 3: 0.26% coverage

So you remember, there was no postgraduate medical education. You either had to pack up your bags and go somewhere.



Reference 4: 0.19% coverage

So there are lots of other alternatives. One, the connection between Guyana and UWI

Reference 5: 0.42% coverage

M: And what are other alternatives? Any come to mind? G06: At that time? Our alternative was if you have family in Canada or the States, you just migrate. You just get the hell out of Guyana.

Reference 6: 0.16% coverage

Certainly allowing you to go on different courses and conferences.

[Internals\\G02](#)4 references coded, 1.71% coverage

Reference 1: 0.25% coverage

I felt that it was the only option to study surgery here in Guyana, yes.

Reference 2: 0.66% coverage

Some other alternatives would be here in the Caribbean that would be the next easiest choice, followed by I guess North America or Europe which would be incrementally more difficult.

Reference 3: 0.51% coverage

I've done fellowships in Place abroad, and right now I'm doing a Masters –but this is completely academic- from the Institution in specialty.

Reference 4: 0.29% coverage

It gave an opportunity; I think one of the earliest opportunities for education

[Internals\\G03](#)1 reference coded, 0.79% coverage

Reference 1: 0.79% coverage

J: Ok. So would it [the degree] facilitate that –going somewhere else –does it qualify you in any way? M: I think it qualifies me in some way.

[Internals\\G04](#)2 references coded, 3.60% coverage

Reference 1: 2.43% coverage

The disadvantages what might contribute to the brain drain is that after finishing you create someone who has a diploma in surgery but the experience that they have had is that they know they can do better or more. And that person looks for more. You don't want to stay at the same level so you will look for ways out to get a degree –and if it's [the diploma] not done here, you will look at other countries.

Reference 2: 1.17% coverage

After doing this training are you able to go to a more rewarding position or to go abroad?  
R: Yeah, because it give you a lot more skills and knowledge as well. That you could get something there.

[Internals\\G07](#)1 reference coded, 0.63% coverage

Reference 1: 0.63% coverage

And the other thing is there are no other means of career development because this is the highest level of the program that is available. So for a few of the guys that have already left, I support that. I suppose that the other guys are either doing something or planning to get something more in order to complete their training.

[Internals\\G08](#)6 references coded, 3.18% coverage

Reference 1: 0.22% coverage

And then Name is doing cardiothoracic, a fellowship. I did specialty. Name did specialty

Reference 2: 1.38% coverage

But personally, UG was my best option. The other guys from our year that actually went to the University of the West Indies and it's a little more difficult to get into that program because it's a paid program –you actually have to pay to get it done. You have to get a job. You have to write their exams to get in. And then they usually take their local people first and if there are spots then they give the foreign people. So I wasn't really prepared to go through all of that, being re-located and everything. So I agree that UG was probably my only option.

Reference 3: 0.26% coverage

Professionally I don't see myself going anywhere except maybe to go somewhere to study then come back.

Reference 4: 0.39% coverage

There's not much to retain people because a lot of people, at least if you show the initiative to do postgraduate, it means that you have a quest to learn more

Reference 5: 0.39% coverage

Personally if I were very interested in general surgery, I would not have been here I would have probably gone to become a general surgeon and then come back.

Reference 6: 0.54% coverage

It was. What they did on this side [Guyana] was they allowed me the time off. I was getting my salary while I was there [fellowship abroad], so it was paid leave and I came back to the job. I resigned and then reapplied.

[Internals\\G08 \(1\)](#)4 references coded, 2.91% coverage

Reference 1: 0.34% coverage

The general surgery program at that time was the only thing available.

Reference 2: 1.32% coverage

Because, the guys that I know, who've left from our program, they basically left because they wanted to get, I mean, they wanted to be recognized as a true general surgeon with the qualifications to say that they are. If that was available here, don't think any of them would have left.

Reference 3: 0.52% coverage

And, see it's a personal thing, the way I see it, and we're being kept at this level because we're like competition.

Reference 4: 0.73% coverage

All right, I mean, the public system is nice to work in, but, at some point, the way our system is set up, you can't survive without going into private practice

[Internals\\P01](#) 4 references coded, 3.44% coverage

Reference 1: 1.21% coverage

But I think the knowledge, opened up their minds and they realize, there's a lot more out there that we need to learn, and then I think when they get exposed to going to international conferences, and they see, okay, I have a diploma in surgery, oh, okay, well I have my Masters, so, you know. How do they compare.

Reference 2: 0.66% coverage

The Minister of public service Minister can do that. But you had people who applied, to join the surgery program, and the public-service ministry said no, you cannot.

Reference 3: 1.18% coverage

Said they went through the interview, got accepted, remember when somebody got through the interview and got accepted, I can't remember if they went into surgery or into emergency medicine, I think the person that he started in the program and public services ministry pulled him out and said, no.

Reference 4: 0.38% coverage

So they're owned. And they make it very clear to them. We own you. Your certificate belongs to us.

[Internals\\P02](#) 6 references coded, 5.86% coverage

Reference 1: 0.57% coverage

But even if they stay throughout their required period, they have established links in another country because if you spend 3-5 years in another country, you've established links, and it's easy for you to leave, again.

Reference 2: 1.21% coverage

You are a senior physician in Guyana at 35 and yes you might earn more money if you go to Canada, but you're starting back. You're starting at the bottom of the ladder. Some people might do that. But the vast majority of us will say, "You know, I'm not going to do that, I'm staying right here" The guy you will lose are the very young guys in his 20s who still have a lot of training to do, who has not reached any place yet in this system, so he doesn't mind going and starting back.

Reference 3: 1.17% coverage

But because we engage them in these training, they are staying. And by the time they are finished their training and they are some middle manager or senior person in his or her department and also is married because, chances are they are married because by 30-35 you have your own family, have built a home –you have decided this is my home, I'm not going anywhere. So I'll go for a short-term training, I'll go visit. But I'm not going to start back my career.

Reference 4: 0.58% coverage

If he starts back. And so, a labourer doesn't mind leaving at 40 or 45 or 50 or 55. But a professional, unless you are taking him –see I'm an older person now, I don't want to go any place unless I don't have to start at the bottom.

Reference 5: 1.79% coverage

And this is why we have to grow the program. And this is where the specialization in a specialist area is important. So you are trained as a surgeon, and I'm sending you to Israel for three months to learn laparoscopy, I'm sending you to China to learn laparoscopy, but now some of them have been trained in laparoscopy so here, you are trained in laparoscopy and you do abdominal laparoscopy, I'm sending you to do laparoscopy of the thyroids and that type of thing. So there is always growth. Or I'm bringing some guys that will train you, you're going to work with this guy for the next 2 weeks because I've brought him for this purpose to teach something you don't know. And that keeps the interest.

Reference 6: 0.53% coverage

We are not going to say no to training abroad. So we are still going to send that one guy and so on, but we are focusing more on sending some of our graduates from the postgrad program for further specialization.

[Internals\\T012](#) references coded, 3.21% coverage

Reference 1: 0.78% coverage

Like I said I'm strongly patriotic. That's a fact. But if going abroad especially if it's going to benefit me and ultimately, [benefit] Guyana with respect to getting experience through –I have no qualms with going abroad to study. But I have no plans to stay abroad.

Reference 2: 2.43% coverage

I think so. Honestly, I think the guys [local people] are willing [to support], I think the guys want to. I think that's why they stay. Because I have the opportunity to even work with some of the surgeons in the private setting. Talk to some of them in the private setting. And these guys have the skill and the ability to go from here and totally work in the private setting they would be welcome. But they stick around. And the work here is hard. It's hard. You have a clinic of one hundred and fifty to two hundred. That is the clinic. And you have the clinic two times a day. And you operate once a day and the op list is 6-7 cases. And it's just you. It's not the case that there's an attending and three residents -it's just you and maybe one consultant. So these guys work hard. These guys have families, they have lives, they are trying to build.

[Internals\\T02](#)1 reference coded, 1.31% coverage

Reference 1: 1.31% coverage

Yes I think it does because for example the guys who finished the program and are doing their Masters abroad, they say that it's just a breeze through because they've done most of the stuff already. Especially the practical part it's just the theory they have to go through.

#### **Appendix L** **Codes at "Freedom of Movement"**

[Internals\\BRT1](#)1 reference coded, 0.99% coverage

Reference 1: 0.99% coverage

When they graduate from this they will get a Guyanese certificate and they will get a credited within their country, but that will not be transferrable out in many situations, and they knew that. And with eyes wide open they accepted that, to start that way.

[Internals\\F01](#)1 reference coded, 1.29% coverage

Reference 1: 1.29% coverage

So what is happening is those who have left they haven't left just to go on a nice Caribbean island because they don't like it in Guyana. When you speak with all of them, they don't have a problem with Guyana. They want training.

[Internals\\F02](#)4 references coded, 3.59% coverage

Reference 1: 0.63% coverage

And we're not really what I see -we're encouraging them to go. And you know, further their training and stuff like that.

Reference 2: 0.46% coverage

The thing about it [the bond scheme] is if you're going to leave, you're going to leave.

Reference 3: 1.63% coverage

And one of the reasons why people don't want to join the program is because they feel like if they do join and they are bonded for let's say 5 years or however long they have to be bonded for and then another opportunity comes up for them to go and further their studies, they won't be released to be able to do that.

Reference 4: 0.87% coverage

And their intention might have been to go [study abroad] and do that and come back. But because they are bonded then they aren't able to do that. It's more difficult.

[Internals\F03](#) 4 references coded, 4.56% coverage

Reference 1: 1.57% coverage

We are also getting fellowship opportunities overseas where they have been getting people shorter and sometimes even longer fellowships overseas. So there is continuing education.

Reference 2: 1.10% coverage

One of the strengths of the program with retaining graduates is first of all you retain them during the interval of their training.

Reference 3: 0.56% coverage

Now the people who are in the program have a minimum of three years.

Reference 4: 1.33% coverage

Other factors like the social environment, crime, opportunities for their children, housing may be some of the weakness that continue to drive migration.

[Internals\G01](#) 6 references coded, 2.34% coverage

Reference 1: 0.27% coverage

Have no idea how that works, you know. The program just wanted you to do the 6 months and that was it, you were never bonded.

Reference 2: 0.05% coverage

When I go back though

Reference 3: 0.03% coverage

When I go back

Reference 4: 0.78% coverage

So when this guy graduates from the University of Guyana, he does one-year internship and then he might work one year as a general medical officer (GMO). And if he gets into one of these programs which is 4 and 5 years. That's 5 years you have that person for in your country. There's nothing else that's going to keep anybody for 5 years in Guyana.

Reference 5: 0.35% coverage

So did that [getting land] help? Certainly that would help. But owning a piece of land, if you're not happy professionally –you would still leave anyways.

Reference 6: 0.86% coverage

So what happens is a lot of people go to other places and get training but the impression that people will want to give is that “oh these guys stay.” These guys stay because when they go, people appreciate them and people offer them jobs. Nobody is going to offer you a job if you’re an idiot. It’s like one of the graduates is in Institution abroad, and he’s already being offered a post.

[Internals\\G03](#) 1 reference coded, 0.73% coverage

Reference 1: 0.73% coverage

Stronger in my case is \*\* I’m just not in a position to move my family. The guys from my batch who went and start over- I was not one.

[Internals\\G04](#) 1 reference coded, 0.95% coverage

Reference 1: 0.95% coverage

You don’t want to stay at the same level so you will look for ways out to get a degree – and if it’s [the diploma] not done here, you will look at other countries.

[Internals\\G05](#) 1 reference coded, 0.52% coverage

Reference 1: 0.52% coverage

It [the diploma] restricts you to either working in a regional area and even working here in the tertiary hospital.

[Internals\\G07](#) 3 references coded, 0.47% coverage

Reference 1: 0.10% coverage

It is the only option if you choose to stay in Guyana.

Reference 2: 0.23% coverage

But for all of us, we had the option of going to other places. Where you go depends on how you feel about staying or not.

Reference 3: 0.15% coverage

People who choose to stay like N, S, myself who choose to stay and live here.

[Internals\\G08](#) 8 references coded, 3.54% coverage

Reference 1: 0.08% coverage

The hope is that we can come back

Reference 2: 0.71% coverage

G08: So right now, there is one guy out doing transplant surgery. And then there is Name out doing cardiothoracic. So right now we really can’t do anything- M: So you’re really depending on everyone being here because if not you won’t have a functioning knowledge base. G08: Exactly

Reference 3: 0.26% coverage

Professionally I don't see myself going anywhere except maybe to go somewhere to study then come back.

Reference 4: 0.73% coverage

Isn't there a bit of pressure on you to stay now –because you're the surgical specialty expert? Like, what would they do? G08: Actually, it does indirectly. I mean my family tells me about it, my friends tell me about it. They can see me being frustrated about it, but I see it is hard to take leave

Reference 5: 0.26% coverage

I was hoping he was getting an application for someone else to join the team, but it didn't come through.

Reference 6: 0.39% coverage

Personally if I were very interested in general surgery, I would not have been here I would have probably gone to become a general surgeon and then come back.

Reference 7: 0.65% coverage

It's not a good thing but they are binding them by contract. So some people are bound to the Ministry of Health for seven years after this program and I don't think that's fair. Because they are doing a 2.5-year program and they expect you to give them back 7 years.

Reference 8: 0.46% coverage

The 7-year program, the 7-year bond is a bond for all the post grad programs. But they haven't really considered that the other postgrad programs are 4 years, and this one is 2.5 years.

[Internals\\G08 \(1\)](#) 2 references coded, 2.84% coverage

Reference 1: 1.52% coverage

Because, it's something like, five or seven years of contract, when the program is just 2 ½ years. And at the end of the program, you just have a diploma; it's not a good trade-off. Because there are other programs now, you're four years, and at the end of it you're given an MD. And it's the same exact contract in terms of time.

Reference 2: 1.32% coverage

Because, the guys that I know, who've left from our program, they basically left because they wanted to get, I mean, they wanted to be recognized as a true general surgeon with the qualifications to say that they are. If that was available home, don't think any of them would have left.

[Internals\\P01](#) 2 references coded, 3.73% coverage

Reference 1: 1.02% coverage



They cannot travel out of the country, with the bond thing. You have to lodge, something equal to the value of the bond, which is usually a title deed or a property. And you have to wait until the public-service minister decides whether or not to give approval.

Reference 2: 2.71% coverage

If you hear about a conference, you need a couple months notice to give you time to find somebody who owns property and is willing to put down their title deed and then to get - you can't go at a short notice, you can't leave the country. Your names on a list at the airport, you can't leave the country. And even after you've finished your five year bond, you still have to wait for, okay you've finished your bond, and you say "good effort my five years, let me go on a trip, I haven't left the country in five years, let me go on a trip". You go to the airport, "Sorry your name is on the list" "But I finished the thing?" "Sorry your name's on the list. Buh-bye". You have to go back, go in to the ministry...

[Internals\\P024](#) references coded, 3.30% coverage

Reference 1: 0.98% coverage

One that you take a doctor albeit the undergraduate doctor and you send him or her off for 3-5 years to study. So in countries where you already have a shortage of medical staff, you are now further depleting it by taking a certified person, a graduate who could provide some medical service and you are making that person provide a similar service in a country that doesn't need it.

Reference 2: 0.57% coverage

But even if they stay throughout their required period, they have established links in another country because if you spend 3-5 years in another country, you've established links, and it's easy for you to leave, again.

Reference 3: 1.17% coverage

But because we engage them in these training, they are staying. And by the time they are finished their training and they are some middle manager or senior person in his or her department and also is married because, chances are they are married because by 30-35 you have your own family, have built a home -you have decided this is my home, I'm not going anywhere. So I'll go for a short-term training, I'll go visit. But I'm not going to start back my career.

Reference 4: 0.58% coverage

And so, a labourer doesn't mind leaving at 40 or 45 or 50 or 55. But a professional, unless you are taking him -see I'm an older person now, I don't want to go any place unless I don't have to start at the bottom.

[Internals\\T015](#) references coded, 9.13% coverage

Reference 1: 0.78% coverage

Like I said I'm strongly patriotic. That's a fact. But if going abroad especially if it's going to benefit me and ultimately, [benefit] Guyana with respect to getting experience through –I have no qualms with going abroad to study. But I have no plans to stay abroad.

Reference 2: 0.94% coverage

Well I get the impression that that possibility [to move to a more rewarding position or go somewhere else] exists. I'm not at the stage where I'm actively exploring it because I'm not done but I get the impression that that possibility exists. Most of the guys have gone – one of the guys has even gone to I don't know Calgary

Reference 3: 0.15% coverage

It sucks [being bonded]. I'm sorry. But seriously.

Reference 4: 4.83% coverage

I was going to stay. But for example, the logics of it. I have no problem signing a contract. Right? Because many of my colleagues look at it and say it's a disadvantage. My view is that you're going to stay anyway. Why not while you stay, you get all these skills and all these opportunities? And at the end of your 5 years instead of just serving at a health center or a rural hospital now you have all these surgical skills. And at the same time the contract is completed. But the issue is that they did something that was strange. From my undergrad, that was a scholarship –so there was a five-year contractual obligation. That's a long time. So that's something to begin with. But we weren't too concerned because we were going to serve for five years anyways. And at the same time you're an undergrad, you want to get the experience. No one is going to hire an undergrad. Or you're going to get into a program just out of med school. So that they have a problem with. But when you join this program. I didn't see the logic. I've completed three years post grad and I didn't see the logic of suspending the two years I had pending from that from the first scholarship –suspending that to have me do this program. Then there are 4 years of contractual obligation from this program, which will be added to the two years from the first program. And all that time does not include the time I'm working and studying here for the two and a half years. So two and a half years that you're doing nothing. When you're working its not all school work its not like you're always in the classroom. You're working and you're working for the same people. So it ends up being something like ten years.

Reference 5: 2.43% coverage

I think so. Honestly, I think the guys [local people] are willing [to support], I think the guys want to. I think that's why they stay. Because I have the opportunity to even work with some of the surgeons in the private setting. Talk to some of them in the private setting. And these guys have the skill and the ability to go from here and totally work in the private setting they would be welcome. But they stick around. And the work here is hard. It's hard. You have a clinic of one hundred and fifty to two hundred. That is the clinic. And you have the clinic two times a day. And you operate once a day and the op list is 6-7 cases. And it's just you. It's not the case that there's an attending and three

residents -it's just you and maybe one consultant. So these guys work hard. These guys have families, they have lives, they are trying to build.

[Internals\\T02](#) 6 references coded, 4.27% coverage

Reference 1: 1.22% coverage

Well, before we go to Cuba, we have to sign one contract. And that was five years. So when we joined the program, we had to sign another one. And I had one and half years left from the other one, so that will be added on to the second one. So that's why it's 5 years.

Reference 2: 0.65% coverage

That's the problem. The Ministry can send you wherever they want. Doesn't matter what you say to them, they do whatever they feel like.

Reference 3: 1.31% coverage

Yes I think it does because for example the guys who finished the program and are doing their Masters abroad, they say that it's just a breeze through because they've done most of the stuff already. Especially the practical part it's just the theory they have to go through.

Reference 4: 0.38% coverage

Well the contract doesn't bother me because I have no intention of migrating.

Reference 5: 0.49% coverage

M: Do you think it works? Is it a good strategy? R: No because anyways when the contract is up they leave.

Reference 6: 0.22% coverage

You can break the contract, but it costs a lot.

## **Appendix M Codes at Hypocrisy**

[Internals\\F02](#) 1 reference coded, 2.79% coverage

Reference 1: 2.79% coverage

F02: No, I think it's supportive [the role of Western Universities]. I think we benefit from when faculty comes down, when fellows come down, when junior staff when they come down they share their perspective and knowledge and so on. I think the guys who go on these clinical fellowships or observerships, they benefit from being exposed to what it kind of should be like. I don't think any of them have left because of that exposure. So I don't think it really contributes. But in our program there were 20 graduates and 17 are here.

[Internals\\G01](#) 1 reference coded, 0.21% coverage

Reference 1: 0.21% coverage

I don't think there is any Western institution that is recruiting Guyanese. I don't think so.

[Internals\\G03](#) 1 reference coded, 0.24% coverage

Reference 1: 0.24% coverage

But I don't think there is a sort of lurking.

[Internals\\G05](#) 1 reference coded, 0.24% coverage

Reference 1: 0.24% coverage

If it's meant for them to be vindictive, they will be.

[Internals\\G08](#) 1 reference coded, 0.86% coverage

Reference 1: 0.86% coverage

And Name is going to take his list and run his firm for the next week without anybody actually raising a problem with it. Right? He's going to see all the patients, he's going to operate on them, he's going to manage all the complications, he's going to do every single thing he needs to be done and nobody says that he's ready to do this on his own.

[Internals\\G08 \(1\)](#) 1 reference coded, 0.52% coverage

Reference 1: 0.52% coverage

And, see it's a personal thing, the way I see it, we're being kept at this level because we're like competition.

## **Appendix N Codes at "Prestige"**

[Internals\\F02](#) 4 references coded, 2.22% coverage

Reference 1: 0.31% coverage

Most people have respect for the graduates of the program.

Reference 2: 0.75% coverage

They are recognized as surgeons, so the public probably perceives that they have more surgeons, and options and access to that kind of care.

Reference 3: 0.80% coverage

Yeah, to keeping them. One of the weaknesses is that they may not feel they are getting the respect they need.

They feel like they are doing most of the work.

Reference 4: 0.36% coverage

So they are doing most of the work, but they are not being recognized

[Internals\\F03](#) 2 references coded, 3.05% coverage

Reference 1: 1.57% coverage

–The graduates of the surgical program are getting recognition and credibility in the private sector. And they are being given privileges in the private hospital to perform surgeries

Reference 2: 1.49% coverage

At the peer level they are getting recognition. Among other surgeons or other doctors – physicians and internists and paediatricians etc. they have to refer and work with them.

[Internals\F04](#)1 reference coded, 0.65% coverage

Reference 1: 0.65% coverage

They think once they get Masters they will be more recognized in the Caribbean at least.

[Internals\G01](#)14 references coded, 4.79% coverage

Reference 1: 0.14% coverage

Hell no. I don't think there's any prestige to being out there [rural]

Reference 2: 0.07% coverage

So there's no prestige out there.

Reference 3: 0.57% coverage

Yeah, I think there's prestige in working for the public health sector. I mean you're helping the people. It's not just about a money-grab. So, I would say somewhat agree [that the program has helped to raise the prestige of public health sector jobs]

Reference 4: 0.46% coverage

M: My teachers positively influenced my views of practicing in a rural setting. Do you Strongly disagree, somewhat disagree, somewhat agree, strongly agree? G01: They never really spoke about it.

Reference 5: 0.20% coverage

That's how I see it. I can't say that there's somebody in Guyana locally who is somebody who was helping me.

Reference 6: 0.16% coverage

Which the sad part is, surgery was the first and now surgery is last.

Reference 7: 0.52% coverage

...Degree is that a young graduate out of the University of Guyana will hopefully see us when we come back and say, "Hold up. Wait a second. This guy wasn't trained in England, US. He's local. And here is doing these things. I can stay here.

Reference 8: 0.48% coverage

G01: I don't know what is the perception now, but when I left, it was a good perception. You were kind of looked up to. "Oh you're doing surgery" That's why if they made it into a degree they will have too much applicants.

Reference 9: 0.18% coverage

So you see, it's so frustrating. Surgery started first and now we're last.

Reference 10: 0.27% coverage

G01: It's just this inherent prestige of being a surgeon. I think it's overrated, but that's just my opinion.

Reference 11: 0.53% coverage

But then, as you would understand, being a medical professional, you move in a different circle and you have certain expectations. You can't fulfill that expectation working in public institutions, so you have to work privately.

Reference 12: 0.72% coverage

M: And what about rural vs. non-rural practice? What would make you more inclined to go back to Regional Area, or any regional area. Z: For me it has nothing to do with money, but it's a different lifestyle. It's a bit slower; the people appreciate you a lot more in the community.

Reference 13: 0.14% coverage

And again you probably feel appreciated for what you do.

[Internals\\G02](#) 11 references coded, 5.54% coverage

Reference 1: 0.59% coverage

I've always been encouraged to practice well and practice in an evidence-based manner and with a good work ethic from all of my supervisors whether rural or otherwise

Reference 2: 0.54% coverage

I've always been encouraged, I think, to always look at the various aspects of the health care especially in this hospital and do what I can to improve it

Reference 3: 0.54% coverage

I may have encouragement from lots of other persons outside of my area of speciality, but not necessarily the best encouragement from within my area.

Reference 4: 0.30% coverage

I think generally speaking it [perceptions of program] would have to be positive.

Reference 5: 0.21% coverage

I've always been encouraged to have my input in the program

Reference 6: 0.35% coverage

So we're talking about people getting the diploma \*\* \*\* on par with the other postgrad programs.

Reference 7: 0.57% coverage

It's perceived to be one of the weakest postgrad programs. Not necessarily because of its content. But because of the outcome measure, which is the diploma.

Reference 8: 1.60% coverage

I think public practice is great because I see so many diverse cases and especially at this stage in my career. I don't believe I'm at a comfort level where I've seen it all or done enough of everything. So the public practice offers me great opportunity to see many things and still be supervised during procedures and certain aspects. Private practice is only there because of the payment -it's an opportunity to earn some extra money, basically.

Reference 9: 0.27% coverage

I would like to be at the center of excellence in the city –wherever that is.

Reference 10: 0.39% coverage

I think the way I've evolved and my personal preference is to be at the center of excellence wherever that is.

[Internals\\G03](#) 2 references coded, 1.58% coverage

Reference 1: 1.34% coverage

M: Among peers, among patients, I think it's perceived as a very good program. It has to do with the graduates themselves –myself, my batch mates and so on. All of us from the first batch who were here are senior members of the surgical teams.

[Internals\\G07](#) 1 reference coded, 0.15% coverage

Reference 1: 0.15% coverage

It [private practice] is much more lucrative. There's much more pay there.

[Internals\\G08](#) 9 references coded, 3.32% coverage

Reference 1: 0.71% coverage

I agree, I strongly agree [it has raised the prestige] because before we couldn't really -I can practice at any hospital around the country, even private hospitals ever since –Name of graduate is the same, Name of graduate is the same. So before [the program], we couldn't do that.

Reference 2: 0.23% coverage

I mean people were in Guyana in surgery for a very long time and they still weren't recognized

Reference 3: 0.08% coverage

I've gained a lot of recognition.

Reference 4: 0.49% coverage

Well when I went to Bartica, it was looked at with prestige, because they didn't have anything like that to begin with. So they [those in regional setting] were very open to it [regional training]

Reference 5: 0.27% coverage

So Dr.Cameron there and with the examiners coming from CAGS, it gives a lot of credibility to the program.

Reference 6: 0.14% coverage

Because with private [practice], it's more lucrative.

Reference 7: 0.29% coverage

I'm sure that the Master's will be more recognized than the diploma, locally as well as outside in the Caribbean.

Reference 8: 0.35% coverage

We do seem to be considered second rate. If somebody comes back from graduating from UWI they walk straight into a consultancy position.

Reference 9: 0.76% coverage

We have to work our way up and we have to convince people that we are good, that we've done this for so long, and we're capable of doing it. Whereas some person we don't even know their background, they just walk in hand their certificate and that's it. So I guess in that sense, we are a second rate education.

[Internals\\G10 Report](#)1 reference coded, 0.41% coverage

Reference 1: 0.41% coverage

It probably takes time and perseverance to develop patient confidence.

[Internals\\G01Report](#)1 reference coded, 0.60% coverage

Reference 1: 0.60% coverage

Their visit was helpful both from a technical point of view but more importantly provided credibility for my work.

[Internals\\P01](#)2 references coded, 1.46% coverage

Reference 1: 1.08% coverage

You're not going to go to one medical school and you graduate from there and then you go to another medical school and become a doctor all over again, you're a doctor and then you move on. So it tells you, well how do they value, you know, it's a question of what is the actual value...



Reference 2: 0.37% coverage

I have a diploma in surgery, oh, okay, well I have my Masters, so, you know. How do they compare.

[Internals\\T01](#) 4 references coded, 2.30% coverage

Reference 1: 0.67% coverage

T01: That and I think coming on, you hear about a lot more involvement from CAGS.

Since the start of the program it's been a lot less from what the older guys refer. M: That made you think it was a good program? T01: At the beginning, yeah.

Reference 2: 0.36% coverage

At the end of the day, a lot of the guys learn skills that even third year residents at some prestigious university... have.

Reference 3: 0.43% coverage

So the patients they have a lot of respect and they have a lot of prestige attributed to the program on the part of the patients. So that's a good thing.

Reference 4: 0.84% coverage

So with respect to the other residents, now this program that was kind of the mother of the programs is looked down upon. There's still the prestige because you can't take that away from surgery. But with respect to the program itself and the end result –the diploma. That has depreciated.

[Internals\\T02](#) 3 references coded, 3.58% coverage

Reference 1: 1.63% coverage

Yes because sometimes these same patients go privately, they spend a lot of money. Then when the money finishes, they come here and after we have treated them and so forth, they thank you and some of them tell you they regret going there [private] in the first place because the same thing that they could do there for them, they've done here.

Reference 2: 1.02% coverage

R: Right now, there are a lot of guys who are in the interior, they are asking me to collect forms for them to apply to the program because – M: Oh wow! R: Yeah, the program has a good impression on the juniors coming up.

Reference 3: 0.93% coverage

The quality of the training. Not so much the qualification you get afterwards but the amount of training, the amount of things you are able to do, the amount of skills you obtain from the program.

[Internals\\G04](#) 4 references coded, 1.99% coverage

Reference 1: 0.38% coverage

Yeah, there's a lot of prestige to it [working in rural setting]

Reference 2: 0.12% coverage

It's well received

Reference 3: 0.90% coverage

I was well received and I was well respected and the hospital appreciated that a surgeon could be at the hospital. And they valued the program a lot.

Reference 4: 0.59% coverage

J: What would make you more likely to stay in public practice? R: If there is an increase in salary

## **Appendix O**

### **Codes at "Quality of Care"**

[Internals\F012](#) references coded, 3.77% coverage

Reference 1: 0.72% coverage

And it [surgical program] strengthens the surgical activities here because at least we've got some people who are reading

Reference 2: 3.05% coverage

So they go out their being perceived as if they are a specialist. So they call themselves a general surgeon, this is the \*specialist\* surgeon. But they are not –really this is not what they are. And so the public now will say "I've been to this doctor who they are perceiving as a specialist. And why shouldn't they perceive them as a specialist? If they are being pushed to be that. So that it's a little bit of a dangerous way –it's good in the sense if you don't have anybody else. But from that point of view it's lowering our standards.

[Internals\F023](#) references coded, 3.31% coverage

Reference 1: 0.38% coverage

Well, the patients themselves are being seen in a more timely fashion.

Reference 2: 1.44% coverage

There is more kind of academic discussions going on around patients. I think even among colleagues they are recognizing that they can talk amongst themselves about patients and see that other perspectives are going to eventually lead to better outcomes for patients.

Reference 3: 1.50% coverage

When they go into the region, the quality is better than it was before. Because sometimes no surgery was available before. And they, like I said, not just you know the clinical work, but the inter-professional stuff and the administrative stuff has improved wherever they've gone.

[Internals\F03](#)4 references coded, 7.90% coverage

Reference 1: 1.71% coverage

There's the regional hospitals and the principle hospital here. And one of the problems was having the manpower to run those hospitals. So the program itself was developed to meet those manpower needs.

Reference 2: 1.64% coverage

I'm not quite sure if the patients know or understand what is happening, but the patients are accepting their care in that we have not had any complaints from patients that they are not satisfied.

Reference 3: 2.72% coverage

J: Has this program influenced the quality of care available to these patients? M: Oh yes, definitely. Without a doubt. J: How so? M: Apart from the fact that the human resources – the approach to the patient in terms of the quality of care as a result of the formal training, you find more evidence of evidence-based practice.

Reference 4: 1.84% coverage

And other aspects of quality that we've improved –in terms of communication with patients, the patient's relatives. The consenting process I believe has improved. Those are things that were pretty weak in our setup.

[Internals\F04](#)1 reference coded, 1.46% coverage

Reference 1: 1.46% coverage

And general public [are happy] because when these people go to clinics –then they can manage all these procedures. Some of them have to travel a long way to come to Georgetown. So they are quite happy.

[Internals\G01](#)2 references coded, 2.11% coverage

Reference 1: 0.81% coverage

M: So how has the program influenced the quality of care available to patients? Z: Um I think it was a lost opportunity again. Ok, so we can say it has benefited a little bit. The question is. Were we measuring any data points? So, here again we are being anecdotal. So I'm not sure if there is any research to show health care got better. But anecdotally at least.

Reference 2: 1.30% coverage

So if you notice there is nothing happening in the region. Nothing. The diploma program that was supposed to help the regions because the regions are still not prepared for us –I think its only Name I think who's in Location in Guyana. No one else is in the regions. Name was in Regional Hospital. You see where Name is- he is in Institution abroad. So I don't think the objective –whether it will have another twist when we go back and if I decide to work in the regions. That's in the future, but at this point I don't think the program helped the region. It certainly helped GPHC.

[Internals\\G03](#)2 references coded, 1.22% coverage

Reference 1: 0.15% coverage

Strengthens patient care

Reference 2: 1.07% coverage

J: And how does it influence –having had this training –how does it influence the quality of care available to patients? M: It definitely improved the quality of care that is being offered.

[Internals\\G07](#)2 references coded, 0.90% coverage

Reference 1: 0.28% coverage

When people ask you where you were trained they expect to hear some other country. When you told them right here, they find it hard to believe.

Reference 2: 0.62% coverage

Doctors, people from the public they ask you where you trained when you are dealing with them. You sound different, your attitude is different. So I suppose for the public even a lot of doctors because of your Influence and because of your ability to handle yourself in difficult situations and even to give good advice.

[Internals\\G08](#)2 references coded, 0.96% coverage

Reference 1: 0.64% coverage

And it has raised it –the level of care coming out of Berbice and Linden has gone up a notch with the presence of these people there. And these people, you’ve seen less referrals coming from these areas, which means that people are actually going to get care.

Reference 2: 0.32% coverage

And then you feel secure that you know, you’ve taught these people so in the future you’re going to have better doctors around.

[Internals\\G08 \(1\)](#)2 references coded, 2.38% coverage

Reference 1: 0.91% coverage

Personally the benefit for me is that, I want to teach people things that I do so in my absence, they can actually do it, and I don’t come and get a complication or have to go, and do it all over again.

Reference 2: 1.47% coverage

So it helps me personally so if I teach them how to resuscitate a born patient they don’t need to call me at 12 o’clock in the night. I can come in the following morning and see, I mean, a reasonably resuscitated patient. So it benefits me, and it benefits the patients. So that’s basically the main reason why I teach.

[Internals\\G01 Report](#)1 reference coded, 1.25% coverage

Reference 1: 1.25% coverage

At the beginning the clinics were small because of the community dissatisfaction with the surgical standards offered by the previous surgeon. In my opinion this was largely due to the language barrier and the lack of a local surgical GMO.

[Internals\\P023](#) references coded, 2.36% coverage

Reference 1: 1.39% coverage

We had some 25 000 people on a list for \*\* surgery, basic surgery. But we didn't have the capacity. We had a few doctors but we couldn't manage it in the public sector. Caesarean section could have only been done in Georgetown hospital and a couple of the private hospitals. Now you can do it in several of the regional hospitals. Emergency gynaecology services and obstetric services in the remote areas can now be performed because we have some of our graduates working in those areas. Those are some of the examples. The impact is enormous.

Reference 2: 0.33% coverage

No one should underestimate –it's not just the outcomes that you have more trained people in the system –you can see the results.

Reference 3: 0.64% coverage

While it is true that you have people coming in the country, in the past they [people] would have come in, do one or two [surgeries] and then go back out. And there was no follow up. Now you could have follow up because there is a trained cadre of people

[Internals\\G07 Report2](#) references coded, 1.66% coverage

Reference 1: 1.01% coverage

The Recovery Room at NARH was created by several efforts of previous surgical residents, it is equipped, functional and currently being used by all specialities.

Reference 2: 0.65% coverage

I taught the recovery room nurses and *Name* using a course outlined created by *Name*.

[Internals\\T012](#) references coded, 1.69% coverage

Reference 1: 0.57% coverage

We get a lot of volume, but we would like to precise our skills. So that's why a lot of people join the program they were thinking we would get a lot of supervision and tutoring from the CAGS surgeons.

Reference 2: 1.12% coverage

So whenever cases would come up [in rural areas] there would be a lot of misdiagnosis. A lot of late referrals, poor referrals and so on. So now you have these guys –it's diagnostic capabilities and skills –some of these things can be handled at this level. And those things

that cannot you have the knowledge to optimize the patients for transfer for secondary or tertiary level care.

[Internals\\T02](#)5 references coded, 3.56% coverage

Reference 1: 0.91% coverage

And some of the guys who have finished the program and are working rural settings, they've also had an influence on us. Because the way they treat patients and so, they are quite impressive.

Reference 2: 0.88% coverage

They [graduates] could have covered those areas [different departments i.e. ortho, obs/gyn] without a problem and could even do things better than the people trained in those areas.

Reference 3: 0.93% coverage

The quality of the training. Not so much the qualification you get afterwards but the amount of training, the amount of things you are able to do, the amount of skills you obtain from the program.

Reference 4: 0.66% coverage

Two years ago I wasn't able to give the same quality as care as good as now. I think it does have an impact on me in giving better patient care.

Reference 5: 0.17% coverage

I'm more confident in whatever I do.

## **Appendix P**

### **Codes at "Relevance of Skills"**

[Internals\\F01](#)1 reference coded, 1.30% coverage

Reference 1: 1.30% coverage

I plan to stay involved continue doing the teaching. Because it is interesting –these are the people that we work with. So I try to tailor my teaching so that when they come – I always tweak it because I see what their weakness is.

[Internals\\F02](#)1 reference coded, 1.08% coverage

Reference 1: 1.08% coverage

I think they were stressing more on clinical stuff and developing their operating skills and so on. And I think if the academic foundation is not very strong then it's very difficult for them to build on it.

[Internals\\F04](#)4 references coded, 1.79% coverage

Reference 1: 0.65% coverage

Number one at the root level, they become a basic doctor for almost all subspecialties

Reference 2: 0.63% coverage

They get basic training so later on they can be absorbed for specialist training also

Reference 3: 0.23% coverage

Enough to give basic knowledge

Reference 4: 0.29% coverage

The public is getting good assistance.

[Internals\\G01](#) 2 references coded, 0.72% coverage

Reference 1: 0.48% coverage

Because I mean the program doesn't teach you, you know first world techniques or advanced techniques. Basic surgical training to survive in the community. The routine stuff. Appendicitis, hernias, trauma.

Reference 2: 0.24% coverage

Well, I mean, you were taught the basic procedures so you can adequately function in a regional setting.

[Internals\\G02](#) 3 references coded, 1.41% coverage

Reference 1: 0.94% coverage

I just don't think that at any point in time, outside of the obvious clinical exposure that overall the teaching was specifically geared towards poor conditions. I just don't think that was the immediate focus, especially in the academic or didactic component.

Reference 2: 0.26% coverage

When you say abroad different persons abroad look for different things

Reference 3: 0.21% coverage

Every different institution looks for different things.

[Internals\\G03](#) 2 references coded, 3.44% coverage

Reference 1: 1.24% coverage

It has to do with exposure to the pathology inherent in tropical –complications of tropical diseases and so on. And it's just the exposure I think that give you a sense of being strong of pathologies that are common here.

Reference 2: 2.20% coverage

M: Well this is where I would practice, so it's good to train. I firmly believe that regions should be training their own. J: Why's that? M: Regional practice, the inherency of practice –it's not just in this case, the surgical craft but it's a lot of it is how to deal with the resources you have and how you use those resources. Paperwork. And everything that goes- the protocols in the region.

[Internals\\G04](#)3 references coded, 2.35% coverage

Reference 1: 0.60% coverage

The best person to treat Guyanese are Guyanese and in Guyana you're dealing with Guyanese patient

Reference 2: 0.44% coverage

You're able more to understand and treat these pathologies right here.

Reference 3: 1.31% coverage

And then to work with whatever you have. Because we don't have CT scan readily accessible –we don't have ultrasound 24/7. So these are things you learn through the program to deal with those. So you're well adapted.

[Internals\\G05](#)1 reference coded, 0.33% coverage

Reference 1: 0.33% coverage

It continues to lack in areas of minimally invasive surgery, endoscopy,

[Internals\\G06](#)1 reference coded, 1.12% coverage

Reference 1: 1.12% coverage

J: Why are local surgeons better? S: Because they tend to adapt more.

[Internals\\G07](#)4 references coded, 2.06% coverage

Reference 1: 0.40% coverage

[Strongly agree that the UGDS program teaches skills relevant for work in under-resourced areas]. Because it was done here and the people who taught us, taught us in the condition we are working currently.

Reference 2: 0.59% coverage

X: Yeah the resources and technology that is currently available in the hospital [were taught]. I'm certain that we've done classes on advanced technologies but I'm supposing that is just for general knowledge and maybe if you want to further yourself in something you know that these are available.

Reference 3: 0.49% coverage

And many of the other surgeons have been taking notice that some of the things that we usually would have seen there is not being seen there. So I think that is a high mark for the program in terms of ...those guys [being] able to deal with a lot of the cases.

Reference 4: 0.57% coverage

And even to strengthen the surgical skills in these areas. Because we worked in areas where for example where we had problems with equipment \*\* not working or something is not there. For example, Dr. JJ worked in Africa and they work under much more constraints than us. So he was there to help us.



[Internals\\G08](#)6 references coded, 2.74% coverage

Reference 1: 0.45% coverage

But then when we're being trained [at GPCHC] to go to a regional hospital, which is, even less resourced than here [GPHC]. So we're kind of at a luxury here, as compared to those areas.

Reference 2: 0.99% coverage

I somewhat disagree with this [teaching is appropriately focused on local conditions] –the teaching here- the theoretical part is based on the STEPS module of the FRCS. Which is not really locally based. And the examination that you actually write is based one, on those modules and the MC is based on, I think they bring questions from the Canadian board. So it's not really focused on local

Reference 3: 0.09% coverage

But the practical part is all-local.

Reference 4: 0.66% coverage

But a typical example, you would never hear people doing an appendix anywhere outside Guyana by open means. It's all laparoscopic. We know it theoretically but we practice it over here. Like the gallbladders everybody takes it out by laparoscope, we do it open.

Reference 5: 0.25% coverage

So when I went to Sunnybrook, I realized what we needed and I made a list. And I brought my list back.

Reference 6: 0.30% coverage

If somebody has two more years of training, they would be more comfortable and more confident to do things on their own.

[Internals\\G08 \(1\)](#)2 references coded, 1.90% coverage

Reference 1: 0.51% coverage

Right now, the general surgeons are being trained; they can manage practically any emergency puts to them

Reference 2: 1.39% coverage

Close to 75% of what is going to be asked of them as a general surgeon, as an elective, on an elective basis, they can handle it, and if they can't handle it, they know what to do with the patient, how to send them off, how to refer them, they're not dangerous, they're safe, they can make good decisions

[Internals\\T01](#)9 references coded, 5.69% coverage

Reference 1: 0.85% coverage

I think here we get a large volume of the kind of cases you will end up seeing in those areas [rural areas]. So there's a lot of exposure, a lot of on hand practical work, reading around the subject. So you get pretty prepared with respect to our demographic and obviously under resourced areas.

Reference 2: 0.45% coverage

Here [GPHC] we've learned the skill, the laparoscopic skills and so, obviously in these kinds of areas we're not going to have access to this kind of stuff.

Reference 3: 0.57% coverage

M: So the what they teach you, is it relevant to what you will see in a regional setting? Or in the Guyanese community? L: Oh! The focus –total local conditions! Well I think so, I say somewhat agree.

Reference 4: 0.68% coverage

Usefulness as in there would be a time when you will gain that much experience, you will probably have done more further training and you will be more useful say at Georgetown or at a central setting than you would be in a rural setting.

Reference 5: 0.61% coverage

So it would be better if there were some kind of relation between the modules and the practical work. There's a great divide between the modules we have to get done and we do them in whatever order and then you work

Reference 6: 0.73% coverage

I mean we see this stuff everyday. But it seems as though we are working and it's separate from going to class. So we don't feel that sense of residency –and it's connected and you're learning something and then you apply. And there's a relation there.

Reference 7: 0.20% coverage

It's not even a Masters or something you can market somewhere else.

Reference 8: 1.12% coverage

So whenever cases would come up [in rural areas] there would be a lot of misdiagnosis. A lot of late referrals, poor referrals and so on. So now you have these guys –it's diagnostic capabilities and skills –some of these things can be handled at this level. And those things that cannot you have the knowledge to optimize the patients for transfer for secondary or tertiary level care.

Reference 9: 0.49% coverage

So in a rural setting our emphasis in our setting is ... more focused on low-resource getting what we need to get done –excellent program. Excellent program for that.

[Internals\\T02](#)4 references coded, 3.17% coverage

Reference 1: 1.08% coverage

Because what we learn here, in the program, the program is basically teaching us to become community surgeons, so that when we go out there we are basically prepared to have anything any surgical decisions, we can handle it.

Reference 2: 0.74% coverage

Well, when you go back to the district, remember those areas are resource limited and we train to work in those kinds of settings so it shouldn't be an issue.

Reference 3: 1.09% coverage

Well there are fewer resources there, but we are being trained to work in those areas resource limited areas. For example we don't have things like central line in those areas. But we are trained to do venous cut down and so forth.

Reference 4: 0.26% coverage

And we're very, we get a lot of hands on in the program.