
Medical requests for assistance from globally mobile populations: contrasting international assignees from different sectors

Robert L. Quigley

International SOS Assistance Inc.,
3600 Horizon Boulevard, Suite 300,
Trevose, PA 19053, USA
Email: Robert.quigley@internationalsos.com

Lisbeth Claus* and Michael Dothan

Atkinson Graduate School of Management,
Willamette University,
900 State Street, Salem, OR 97301, USA
Email: lclaus@willamette.edu
Email: mdothan@willamette.edu
*Corresponding author

Abstract: The requests for assistance to an assistance service provider of international assignees and their dependents employed in corporate, governmental and non-governmental organisations were compared in terms of closing diagnoses and case outcome types. Using institutional theory and the resource-based view of the firm, we hypothesise that these sectors have different approaches to duty of care that lead to different medical diagnoses and outcomes when international assignees need assistance for issues impacting their health. The findings indicate that there are differences in duty of care between the sectors with international assignees sent by government and non-governmental organisation employers experiencing different medical diagnoses and case outcomes upon diagnosis from those sent by corporate employers. These results have important implications for managing the duty of care considerations and the necessity of providing support for international assignees and their dependents.

Keywords: international assignees; duty of care; medical assistance; public sector; private sector; non-profits.

Reference to this paper should be made as follows: Quigley, R.L., Claus, L. and Dothan, M. (2015) 'Medical requests for assistance from globally mobile populations: contrasting international assignees from different sectors', *European J. International Management*, Vol. 9, No. 6, pp.712–736.

Biographical notes: Robert L. Quigley, MD, DPhil, is Regional Medical Director, Senior Vice President of Medical Assistance, Americas Region, at International SOS, USA. He has authored over 125 clinical and basic science articles in peer-reviewed journals and is a subject matter expert in aeromedical transportation, international healthcare, duty of care and crisis management.

Lisbeth Claus, PhD, SPHR, GPHR, SHRM-SCP, is a Professor of Global Human Resources at the Atkinson Graduate School of Management at Willamette University, USA. Her research focuses on the implications of employees of global organisations crossing borders. Her work has appeared in *The International Journal of Human Resource Management*, *Journal of Global Mobility*, *European Journal of International Management*, *European Journal of Management*, *International Journal of Cross Cultural Management*, *International Journal of Management Review*, *Human Resource Management Development*, and *Thunderbird International Business Review*. She is the editor-in-chief of volumes 1 and 2 of the *Global HR Practitioner Handbook* (Global Immersion Press).

Michael Dothan is Guy F. Atkinson Professor of Economics and Finance at the Atkinson Graduate School of Management at Willamette University, USA. He has a PhD in Economics from Harvard University. His research focuses on mathematical and statistical models in private and public management and his work has appeared in the *Journal of Policy Analysis and Management*, *Public Finance and Management* and the *Journal of Financial and Quantitative Analysis*.

1 Introduction

Global mobility and globalisation go hand in hand. In a scarce talent environment, organisations operating globally must strategically manage their portfolio of talent deployment and continue to rely on short- and long-term international assignees to supplement local talent regardless of how costly that they may be. International assignees are sent by multinational organisations from all sectors – corporations, government organisations (GOs), and non-profit organisations including Non-Governmental Organisations (NGOs). Expatriate employees must adjust to a different cultural environment in the host country for their work and living experiences. In addition, being in an unfamiliar environment entails all kinds of additional risks for employees in terms of health, safety, and security threats. The different host countries' international assignees who are sent around the world have specific health, security and political risk profiles. Compared to corporations, governments and non-profit organisations tend to send a large portion of their expatriates to the bottom 60 countries which are higher-risk locations. Still the duty of care focus (i.e. risk assessment, preparation, support and protection) that their employers provide is likely dependent on the sector in which they work.

This paper focuses on the duty of care issues of international assignees and their dependents who experience health issues while on international assignment and request assistance from a contracted third-party service provider firm. The purpose of the paper is twofold: (1) to explore whether there is a difference in Request for Assistance (RFA) for medical purposes (and the medical diagnoses made) among globally mobile populations from corporate, government, and NGOs; and (2) whether the outcomes of these requests vary among employers from the different sectors. Although exploratory in nature, this paper fills an important research gap in a number of ways. First, the field of duty of care as it applies to global mobility has only recently been developed and received the attention of global organisations (Claus, 2009; Claus and Giordano, 2013).

Second, there is limited empirical research on duty of care with the exception of a practitioner-oriented Global Benchmarking Study (Claus, 2011) and little evidenced-based research on the requests for medical assistance of international assignees (Druckman et al., 2012; Druckman et al., 2014). Third, most management research (including global mobility) has primarily focused on the corporate sector rather than government or non-profit employees (Bamberger and Pratt, 2010; Claus et al., 2015). Using an empirical data set of US-based global organisations that employ an assistance service provider to support their globally mobile employees, international assignees from different sectors who requested medical assistance while on assignment are compared in terms of closing diagnosis and case final outcome types.

2 Review of related literature

There are three separate streams of literature that inform our research regarding requests for assistance from globally mobile populations from different sectors. First, there is a stream of well-established research on cultural adjustment of international assignees that – although only tangentially applicable – can be invoked when looking at international assignees requesting medical assistance. It is based on the premise that if international assignees do not feel healthy, safe and secure while on assignment in a host country, they are likely to have adjustment difficulties. Second, more recent literature deals with the duty of care obligations of employers for the health, safety and security of their international assignees. Third, there is occupational health literature – although mainly domestic in nature – that can be invoked. It should be noted that the topic of how employers deal with international assignees who become ill or injured while on assignment remains largely a practical global mobility concern of employers, making it difficult to link this study to previous research.

2.1 Cultural adjustment

The closest – although tenuous – link that we can make between illness and the international assignment management comes from the cultural adjustment literature. The cultural adjustment model proposed by Black et al. (1991) is the most widely cited theoretical framework for the multidimensional process of adjustment of international assignees. The model includes three variables that are general, work, and interaction adjustment. General adjustment refers to an assignee's psychological comfort in regard to non-work and general living conditions such as food, transportation and healthcare in the host country. Work adjustment is an assignee's psychological comfort associated with the job or tasks assigned. Interaction adjustment or an assignee's psychological comfort tied to interactions with host country nationals. The adjustment of an international assignee is measured by the degree of fit or absence of stress associated with these three dimensions (Black, 1988; Black and Stephens, 1989; Black et al., 1991; Shaffer et al., 1999). The cultural adjustment literature acknowledges that health is a component of general adjustment. If an international assignee (or dependent) becomes sick while working abroad, it will obviously reduce 'general' adjustment to the host country. With only minor exceptions (Williamson, 2010; Darby and Williamson, 2012; Claus and Giordano, 2013; Fee et al., 2013), the academic international literature has basically ignored the health, safety and security issues of international assignees.

2.2 Employer duty of care

Employers have a moral and legal duty of care obligation towards their international assignees, their dependents as well as their international business travellers. An employer's duty of care is the obligation of an organisation to assume responsibility for protecting its employees from 'foreseeable' risks and threats when working around the world (Claus, 2009). In order to protect the health, safety and security of their employees, employers strategically focus on prevention as well as incident management and usually outsource the medical and security assistance for their international assignees to third-party business-to-business service suppliers. These firms, among other consulting services, provide medical and security assistance to individual employees of global organisations through their 24/7 call centres and assist employers with the evacuation and emergency repatriation of employees in a personal crisis (mainly due to illness and road accidents), or collective crisis (as a result of natural and human-made disasters). When an individual who resides abroad calls the call centre, an RFA is recorded and eventually a medical diagnosis is established based on the reason for the call and related follow-up calls. The duty of care awareness, support and control that global organisations have when their employees go abroad on assignment vary by sector and are much more developed in corporations than in GOs and NGOs sectors (Claus, 2011). Yet, an increasing number of international assignees are sent to various far-flung destinations by GOs and non-profit organisations. With only minor exceptions (Williamson, 2010; Darby and Williamson, 2012; Fee et al., 2013) and a call for papers for a special issue of the *European Journal of International Management* (Claus and McNulty, 2014), the academic global mobility literature has basically ignored the health, safety and security issues that make up the employer's legal and moral duty of care obligations.

A few duty of care conceptual models have been proposed – one for overall employer duty of care (Claus, 2011), one for employee expatriate security (Williamson, 2012; Darby and Williamson, 2012), and one for evacuation (Fee et al., 2013). The first model (Integrated Duty of Care Risk Management Model) is an eight-step 'Plan, Check, Do, Act' to mitigate 'foreseeable' health, safety and security risks of international business travellers, international assignees and their dependents (Claus, 2011). HR is seen as one of five key stakeholders in the organisation who has significant primary, coordination and decision-making responsibility in the planning and incident/crisis management of employees working abroad. The second framework, 'Employment Cycle and Security', focuses on formal practices to sustain risk management of employees and considers individual and organisational characteristics in each step of the expatriation cycle (Williamson, 2012; Darby and Williamson, 2012). The third framework focuses specifically on expatriate evacuation and delineates what role human resource managers could, or should, play during crisis preparation and response (Fee et al., 2013). The above conceptual frameworks are derived from a risk management/prevention framework and emphasise the overall process of managing risks in the different stages of the international assignment (before, during and after departure). As a result, they tend to be more heuristic and practitioner-oriented. Yet, they provide value in calling attention to the importance of duty of care in managing global mobility and developing frameworks that encourage further discussion and empirical academic research on this topic.

2.3 Occupational health

Finally, from the occupational health and environmental medicine literature, two empirical studies are of direct interest to our research topic. A first study (Druckman et al., 2012) assessed factors affecting the likelihood of requiring medical services during an international business trip study. The authors concluded that when assessing the risk of work-related travel, employers must focus on more than infectious diseases and that risk mitigation of employers is needed for both high- and low-risk regions. A second study by the same authors (Druckman et al., 2014) looked at country factors associated with the risk of requiring medical evacuation and hospitalisation among expatriate workers and their dependents. The findings suggest that hospitalisation and evacuation of expatriate workers are strongly associated with country risk enabling employers to target specific prevention programs to support expatriate workers and their families.

3 Conceptual framework

Since the expatriate literature on cultural adjustment has largely ignored health, safety, and security as factors in expatriate adjustment, the duty of care literature is more practitioner-oriented, and the occupational health literature is domestic; there is a need to look for broader theoretical frameworks to justify our hypothesis regarding differences in RFAs and subsequent diagnoses and case outcomes of these requests among globally mobile populations from different sectors. Initial duty of care benchmarking research shows that corporations do a better job than government and non-profit employers when it comes to planning and implementing duty of care (Claus, 2011). This finding makes sense when viewed in light of explanations provided by both institutional theory and the resource-based view of the firm as they apply to the three sectors.

Institutional theory (Meyer and Rowan, 1977; Meyer and Scott, 1983; DiMaggio and Powell, 1983) is used as a theoretical framework in order to understand how the organisational features related to the social structural and cultural context of employing organisations from different sectors are related to the different medical diagnoses international assignees receive when requesting assistance for a health issue. As stated by Meyer, *'The new institutionalisms see the social environment as effecting the behaviors and practices and ideas of people and groups conceived as bounded, purposive and sovereign actors'* (2007, p.790). The social environments of corporations, governments and non-profit organisations are considered to be sufficiently distinct as institutions have different *raison d'être*, values and norms, organisational intent for sending international assignees, and employee profiles. This makes the forms of coercive pressure over the behaviour of their employees – in this case international assignees – that they exert when it comes to managing their duty of care obligations distinct. As a result, organisational practices with regard to duty of care are embedded in the structure, culture and social reality of these organisations. Institutional mechanisms play a role in producing differences in the diagnosis and outcomes of international assignees from different sectors. While there may be subfields in each sector (for example, different industries in the corporate sector or different types of non-profits such as universities, foundations and relief organisations), the sector itself is homogeneous enough to produce different international assignee profiles, organisational structures and cultures that explain medical diagnoses and outcomes beyond the demographics of age and gender and the risk of the country of assignment.

Resource-based theory is used to show the different responses employers have once a medical diagnosis has been established which then leads to different outcomes for international assignees in the private, public and non-profit sectors. Resource-based theory views each organisation as having unique resources and capabilities that provide the basis for the organisation's strategy and is the primary source of its profitability (or other desired value). The underlying assumption is that, over time, firms acquire and develop different resources and unique capabilities (Barney, 1991; Barney et al., 2001; Grant, 1991; Meyer, 1991). The combination of these resources and capabilities provides a competitive advantage to an organisation if it can be used in a way that is difficult for others to imitate (Grant, 1991). The resource-based view suggests that a strategy consists of developing complementary activities. To the degree that each of these activities is unique to the firm and difficult to duplicate by other firms, competitive advantage results. The greater the number, uniqueness and fit of the activities, the greater the likelihood that sustainable, strategic advantage accrues to the firm. The resource-based view of organisations posits that employee resources are justified in terms of future cost-benefits for the organisation. Hence, corporations will invest in duty of care prevention and pay attention to the preparation of international assignees to mitigate risks when they believe that prevention is cheaper than incident management and in order to avoid duty of care law suits for claims of negligence.

4 Hypotheses

The first hypothesis relates to the *medical diagnoses* that were made based on the RFAs of international assignees (dependent variable) and the different employment sectors (independent variable). The justification for the paper's hypotheses regarding sectorial differences is based on the basic tenets of institutional theory. We, therefore, expect to see not only different diagnoses in different sectors but also that some diagnoses will be more or less prevalent in the government and non-profit sectors than in the corporate sector. The hypothesised differences in medical diagnoses are a direct result of institutional differences in mission, organisational intent for sending international assignees, as well as the profiles of international assignees of the different sectors.

Corporations – driven by a competitive market economy – will be more likely to engage in duty of care for the mitigation of foreseeable risk by assessing risk, preparing employees, and assisting them before medical conditions get out of hand. This results in different diagnoses when medical issues do occur with their international assignees. They are driven by rational choice risk management norms and understand that prevention is more cost-effective than managing incidents. Their corporate decisions are largely driven by the expectations of their internal and external stakeholders. Corporate international assignees are likely to have greater expectations of their employer with regard to medical services when on assignment in a country with poorer medical infrastructures than assignees in the other sectors. Because they want similar levels of medical care for them and their dependents as in their home country, they are expected to be more likely to get the medical diagnosis of '*concerns with their health status and contact with health services*' when calling for assistance while on assignment. For-profit organisations are cognizant of the need to mitigate risk and the possible negative consequences of failing to do so in terms of their ability to attract talent for international assignment, the possibility of costly litigation, the impact on their reputation, and overall business continuity.

Governments – driven by the maximisation of the public good and social well-being when markets fail – have less choice as to where they are sending their employees on assignment and are constrained by the non-market allocation of resources. In addition, public sector agencies are more bureaucratic and expected to be less agile in risk mitigation and crisis management. Finally, governments have sovereign immunity and cannot be sued for failing to assume their duty of care obligations (Doernberg, 2004).

Non-profit organisations and especially NGOs – driven by the accomplishment of their mission and being highly dependent on donors for program funding – are in the worst position to effectively prepare and assist their employees on assignment – especially in high-risk locations. While they may have duty of care policies in place, they focus more on preparing international assignees to take care of themselves rather than having active measures in place to protect their employees (Claus, 2015). Owing to the lack of adequate medical care infrastructure in high-risk countries, international assignees of NGOs are more likely to rely on the assistance service provider for minor issues at the onset of these symptoms as they have limited or no local healthcare support. As a result, they are expected to have a higher probability of getting a diagnosis for *ill-defined symptoms* than assignees in other sectors.

The differences in organisational intent of corporations (profit driven), government (public service driven) and non-profit organisations (mission driven) also influence the reasons why the various sectors send their employees on international assignment. Corporations have more options regarding international assignments than governments or non-profits: when the risk for their employees is too high, corporations can opt not to send them or can bring them back before the end of the assignment. The major corporate response to increased perception of risk is a combination of increased emergency/evacuation preparation or to reduce the number of international assignees sent to high-risk host country locations (KPMG International GAPP Survey, 2013). Governments are more focused on public service and NGOs on providing help and assistance even when the environmental conditions are high risk. Therefore, we expect international assignees in non-profit organisations to have higher probability of *infectious and respiratory diseases* (high environmental risk) and *injuries* (poor infrastructure leading to road accidents and security issues) than the other sectors. These high-risk location morbidity risks apply less to international assignees in the government and corporate sectors as they are less ‘out there’ with the locals and more supported and protected by their institutional context. The medical service infrastructure for government and corporate international assignees is likely to be better organised (and expected by these employees) than for international assignees in the non-profit sector.

The demographic profile of international assignees is also likely to be different for corporations, government and non-profit organisations. In terms of the demographic profile of employees in these various sectors, there is much more research and public data available on corporate international assignees than in the other sectors. The demographic profile of corporate international assignees is well known through global mobility trend surveys that have been conducted annually by industry groups. Most corporate international assignees are between the ages of 30 and 50, only 20% are female, and the top host countries for international assignment are countries with low to medium risk rather than high and extreme risk. Top destinations for international assignments (Brookfield Global Relocation Services, 2014) are the USA (risk level 1), China (risk level 2), the UK (risk level 1), India (risk level 3) and Brazil (risk level 3) (International SOS HealthMap, 2013). Research on the profile of international assignees

in the government and non-profit sectors is not as readily available. Experiential professional knowledge from global mobility consulting practice indicates that government international assignees tend to be somewhat older, which is also confirmed by the age distribution in each sector shown in Table 1. To be considered for a public service assignment, employees must have developed a certain amount of expertise and experience. Hence, they are likely older and/or often engage in an international assignment as a second career or when they are empty-nesters. Therefore, it can be expected that government international assignees have a higher probability to have diagnoses for diseases with onsets associated with middle age, such as *circulatory diseases, neoplasms and endocrine diseases*. In addition, the job content of public sector employees is more of an administrative nature than private sector organisations (Buelens and Van den Broeck, 2007). Because the nature of their work leads to a more sedentary lifestyle, we expect government employees to have a higher probability of these ‘lifestyle’ diseases. International assignees in the non-profit sector are often younger and more likely to be female than in the corporate sector. One study indicated that international assignees in the NGO sector are also considerably more gender balanced with over 40% of females (Claus, 2015). Non-profit organisations – especially NGOs – are more likely to send their international assignees to the bottom 60 countries than for-profit corporations. Owing to their younger age and stressful work in high-risk environments, it is expected that international assignees in the non-profit sector are more likely to experience behavioural health issues as a result of stress. Hence, they have a higher probability of *mental disorder diagnoses*. These sectorial differences in mission, purpose for sending international assignees, and assignee profiles are, therefore, likely to produce different morbidity profiles of international assignees and subsequent diagnoses when they request assistance or when they are ill while on assignment.

Personal demographic factors and situational factors are used as control variables as they directly impact the health risk that international assignees may encounter and cause them to request assistance. While the focus of this paper is on structural differences by employment sectors, the dependent variable (medical diagnosis established as a result of an RFA from international assignee) is heavily dependent on personal factors (such as age, gender) and environmental factors (the host country of assignment) as these are primarily linked to health risk factors while on international assignment. Host country risk was found to be the most influential factor in hospitalisation and aeromedical evacuation among expatriate workers (Druckman et al., 2012). It could further be argued that the sectorial differences are not just due to structural or organisational characteristics of these employers but to the fact that their employees have very different demographic profiles and job content. Since we are dealing with a medical diagnosis as a dependent variable, personal characteristics such as age and gender are especially relevant here as antecedents of morbidity. Therefore, health incidents that expatriates and their dependents may incur while on assignment abroad are heavily influenced by these demographic characteristics. In other words, when international assignees initiate an RFA from abroad, the closing diagnosis will likely reflect their age and gender-specific morbidity profiles independently of their employment sector and host country of assignment. Based on the age- and gender-specific profiles, older international assignees are more likely to have serious health problems, especially in terms of chronic conditions, while females are more likely to experience illness than males.

The linkage between sector and the environmental risk/personal characteristics may also indicate a causal relationship suggesting that people with certain attributes select

into certain sectors of the economy and not others. From the existence of health risk maps (International SOS HealthMap, 2013), we know that the environmental health risks of the different host countries of assignment affect the morbidity experienced by international assignees in these locations. For example, it makes sense that if an assignee is sent to a country that has malaria as a high risk factor (versus countries where this risk factor is non-existent) the probability that the international assignee will contract malaria is dependent upon that risk factor in that host country. In addition, different sectors may send their international assignees to countries with different risk profiles. Government and NGOs, rather than corporations, are more likely to send people to host countries that include high-risk and dangerous locations given the nature of their mandate to operate in almost every country on Earth. NGOs, owing to their mission, tend to operate more in countries where there is high need for their services, which is more likely to be a developing country. As a result of the environment risk of different countries, we expect the diagnoses from people requesting assistance is likely to vary by host country of assignment. Although these demographic factors play a central role in diagnoses and – as discussed later – outcomes, they might be accompanied by, or confounded with, effects relating to the economic sector in which an employee works. In spite of the previously discussed personal factors and the host country medical risk, we expect the sectorial differences to be maintained when controlled for these influencers. Although perhaps somewhat surprising, if sector effects existed even after controlling for these confounding factors in this exploratory research, it would provide an interesting puzzle for future research to explain the phenomenon. Thus,

Hypothesis 1: Certain medical diagnoses will be more prevalent in the different sectors:

- (a) *International assignees in the corporate sector are more likely to receive a medical diagnosis of factors affecting their health status and contact with health services.*
- (b) *International assignees in the non-profit sector are more likely to receive a medical diagnosis of ill-defined symptoms, infectious diseases, injuries, diseases of the respiratory system, and mental health conditions.*
- (c) *International assignees in the government sector are more likely to receive a medical diagnosis of diseases of the circulatory system, endocrine diseases, and neoplasm.*

The next hypotheses relate to the dependent variable *case outcomes* for the international assignees based on these diagnoses. A closing diagnosis established as a result of an RFA by a medical assistance company is likely to be the driving factor for what type of assistance will need to be provided to the international assignee working and living abroad as an expatriate. Keeping in mind that the diagnosis (influenced by host country risk, age and gender) affects the case outcome (i.e. the intervention is linked to the diagnosis), for these hypotheses the focus is on a second-order analysis of the organisational support factors from the different sectors. In other words, we control for age, gender, and host country health risk in looking at the relationship between medical diagnosis and case outcome. Subsequently, once an expatriate has requested assistance and a diagnosis has been established, the support offered by the employing organisations is likely to vary according to the resources and incentives the organisation has.

For predicting the outcomes of a medical diagnosis received by international assignees, we supplement institutional theory with the resource-based view of the firm.

We posit that corporations have a strategic advantage over the public sector and non-profit organisations based on the set of activities and resources that they have put in place to prevent duty of care risks for their international assignees. Corporate employers are more likely to deploy organisational resources to support the international assignee while abroad than governments or non-profit organisations, not only because they are more likely to have additional resources (than non-profits), but also because they are more vulnerable in terms of being sued by employees if they neglect their duty of care obligations. While the government has vast resources, they are less nimble in deploying those resources than corporations. Government bureaucracies are not designed to be effective as their structure arises out of politics and its design reflects the interests, strategies and compromises of those who exercise political power (Moe, 1989). Hence, the funding and deployment of those resources for duty of care by governments are not as agile as for corporations. There is no reason to believe that the resources provided to non-profits (NGOs) will be adequate to confront the challenges international assignees face in these difficult situations when they get ill while abroad. Non-profit organisations, owing to lack of resources, face even more challenging environments and their resource constraints appear even stronger – that is they rely on the inclination of donors to provide their resources, thus putting them in a situation that is highly dependent on other entities. To that extent, non-profit employees might face difficult scenarios with few resources to help them address duty of care challenges. As non-profits have, in general, fewer resources than corporations and are less likely to be sued owing to lack of deep pockets, and governments are more bureaucratic and have sovereign immunity, we expect employers from the different sectors to react differently to the diagnosis established based on an RFA. This leads to different case outcomes for their international assignees when they are diagnosed with an illness while abroad. It is much harder to predict which type of medical services (e.g. advice and referral, inpatient, evacuation) is linked to resources of the firm.

While resource availability affects the medical services that are available to international assignees in different host country locations, in reality the deployment of these resources is linked to subfields in the sectors – especially the work and risks related to different industries. Corporations and governments have the resources to meet the expectations of their international assignees to have Western-style medical care available for outpatient assistance and have the resources to provide Western-style inpatient services when needed (locally or in a nearby country). Yet, different industries may make different arrangements to provide these inpatient and outpatient services based on the work that they do and the adequacy of the medical resources in the local country. For example, an employer in the energy, mining and infrastructure industry operating in a remote area of an African country is likely to have access to a compound with a local medical unit for routine inpatient and outpatient services, but it will send international assignees out of country for more serious and complicated interventions, providing aero-evacuation if needed. In a different context, a corporate employer in an urban area of China (e.g. Shanghai) may set up (or contract with) a Western-style clinic and hospital (e.g. Parkway Health Group) so that their international assignees and dependents have full access to inpatient and outpatient care locally. Obviously, such arrangements are not only costly, but also require advance planning. NGO workers are less likely to have these medical amenities and may need to rely on local healthcare providers. As this study is exploratory and no previous research can guide us, we state the outcome hypothesis in non-directional terms. Thus,

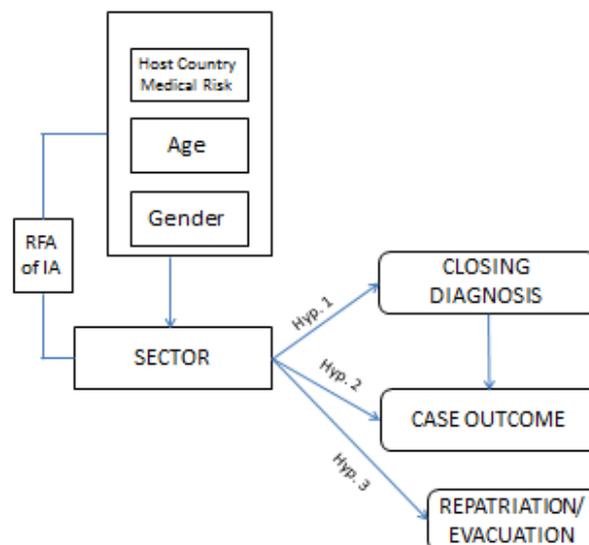
Hypothesis 2: There are differences in case outcome types by sector.

A particularly interesting sub-outcome of a case is ultimately evacuation/repatriation. Early repatriation and evacuation are a clear sign that the problems leading to the RFA that the international assignee experiences are not likely going to be resolved in the host country and, therefore, there is a need to bring the person home. The repatriation or medical evacuation of an international assignee is very resource intensive and the use of an air ambulance is very costly for an organisation. The decision to repatriate early (or to evacuate) is also largely driven by organisational factors. We expect that repatriation decision-making processes differ by the authority (right to command) of the sector, the extent to which it relates to the accomplishment of their mission, their view of risk and prevention, and their experience in protecting the health, safety and security of their employees in different parts of the world. Both institutional theory and the resource-based view suggest that the different sectors will make different repatriation decisions because they have different incentives in deploying their financial resources and protecting their human capital. Together, these structural differences suggest that non-profit (NGO) employees (and to a certain extent public sector – government – international assignees) might face a combination of task difficulties and resource constraints that do not exist in the for-profit (corporate) sector. Thus,

Hypothesis 3: International assignees in the corporate sector are more likely to be evacuated/repatriated.

The research model in Figure 1 summarises the hypothesised relationships among the variables we examine. Overall, our hypotheses ask whether the employment sector (independent variable) impacts closing medical diagnosis and case outcomes of an international assignee requesting assistance (dependent variables) and explores the contributing role played by age and gender of the international assignee and the health risk of the host country.

Figure 1 Hypotheses and relationship among the variables



5 Methodology

In this section, we describe the conceptualisation and operationalisation of the variables, the methodology and the sample.

5.1 Conceptualisation and operationalisation of variables

The independent variable is the employment *sector* classified as corporate/for-profit, government, or non-profit. The dependent variables are: (1) closing diagnosis; (2) case outcome type; and (3) evacuation/repatriation. When a new RFA comes in to the call centre, a case record is opened and a preliminary reason for the RFA call is recorded. Eventually, a *closing diagnosis* based on the ICD-9 classification (rolled up in 20 categories) is recorded by the case handler based on the multiple interactions with the caller (see Tables 3, 4 and 5 for a list of the ICD-9 classification). Note that if a person initiates a request for different reasons (resulting in a different diagnosis), multiple cases may be opened for the same person. The *case outcome type* is the ultimate action that has been taken by the assistance provider (seven categories) based on the closing diagnosis (see Table 6). *Evacuation/repatriation* is a subset of the case outcome variable for those assignees repatriated to the home country or a medical facility in a country other than the host country as a result of the RFA and subsequent closing diagnosis. Age, gender and host country health risk are used as controlling variables as they are closely linked to the closing diagnosis and the population profiles of the different sectors. Host country was coded based on the medical risk level using a scale from 1 to 5, representing low (1), medium (2), medium-high (3), high (4) and extreme (5) using a health risk map from International SOS HealthMap (2013) developed at the time of the data collection. Gender was coded as categorical variable (male/female) and age at the time of the RFA as an ordinal variable (seven age groups; see Table 1).

5.2 Method

Statistical analyses included chi-squared (χ^2) tests. Owing to the many categories of the nominal variables of interest, a second-order χ^2 analysis was calculated for those cells where the actual count was higher than the expected count to identify significant differences. Further, a logistic multinomial regression model was evaluated to take into account the control variables (age, gender, and country medical risk). Using the non-profit sector and mental disorders of the ICD-9 diagnosis as a baseline, we report the coefficients, the standard errors and the significance of the χ^2 statistic obtained in the multinomial logistic regression for each sector. Further, we show the probability in percentages of each closing diagnosis for each sector.

5.3 Sample

The sample consists of case records of an assistance provider based on RFAs by international assignees from different sectors (corporate, government and non-profits) from its different North American clients over a 24-month period. The corporate sector in this case study is made up of large fortune 1000 companies from various industries, professional services companies and medium-sized international companies. The government sector is made up of public sector agencies and commissions (excluding

military and embassy personnel). The non-profit sector is made up of assistance and relief organisations, educational institutions (colleges, universities and international schools), healthcare organisations, religious organisations, foundations, institutes, and other voluntary organisations. A two-year time frame (from 1 January 2012 to 31 December 2013) was used to ensure a larger sample of short- and long-term international assignees could be captured. While information is available on the number of different client organisations involved (1099 organisational members), including the number of RFAs for which a case record was opened (41,984) and the number of complete records for data analysis (17,027), the size of the potential assignee population of this study is unknown. Therefore, the data in the sample follow a Poisson distribution rather than a normal distribution. Only complete records were used (40.5% of the total records available) for the data analysis. Excluded were self-employed individuals who are not associated with an employer as well as incomplete cases due to a variable missing from the case. It should also be noted that this sample represents organisations that have already taken duty of care action on behalf of their employees in terms of providing them with 24/7 assistance services and thus likely represents the best-in-kind organisations in terms of duty of care, as not all employers sending employees abroad avail themselves of such services (e.g. only 34% of all employers with international assignees contract with a service provider for emergency assistance and evacuation during crises). There are differences by industry, number of international assignees and number of countries in which an employer has international assignees. KPMG International GAPP Survey (2013) found that using an assistance provider is the highest (51%) in the energy sector and the lowest (28%) in the IT sector; lower (27%) for companies with less than 51 assignees and higher (54%) for companies with over 500 international assignees; lower (5%) when assignees are in less than five countries and higher (20%) when they are in more than 50 countries.

The descriptive statistics of the RFAs in terms of gender, age, host country risk and sector are shown in Table 1. All assignees had the USA as their home country of departure. Using the UN country classification (United Nations Statistics Division, 2013), they were deployed to 246 host locations (countries and sub-territories) on every continent. The corporate sector has a significantly higher proportion of males than females, the government sector has approximately equal proportions, and the non-profit sector has a significantly higher proportion of females than males. The most likely age group for assignees in the corporate sector is 30–39 years old, 40–49 years old in the government sector, and 20–29 years old in the non-profit sector. The distribution of corporate assignees among host country health risk classes declines with risk, while the frequency of assignment to medium-risk country is about half of the frequency of assignment to a low-risk country, and the frequency of assignment to an extreme-risk country is less than one-tenth of the frequency of an assignment to a low-risk country. These findings are very different from the distribution of government assignees, where the frequency of assignment to an extreme-risk country is four-tenths of the frequency of assignment to a low-risk country. Among non-profit assignees, the frequency of assignment to a low-risk country is significantly lower than in the other two sectors, while the frequency of assignment to medium-high- and high-risk countries is higher than for the other two sectors.

Table 1 Descriptive statistics

		Total (%)	Corporate (%)	Government (%)	Non-profit (%)
Gender (N = 17,027)	Male	58.3	61.0	52.7	38.9
	Female	41.7	39.0	47.3	61.1
Age (N=17,027)	Less than 20	12.9	12.5	21.9	15.2
	20–29	20.5	16.9	9.5	48.5
	30–39	26.9	28.5	18.4	16.3
	40–49	19.7	21.2	24.4	8.7
	50–59	14.5	15.5	17.9	6.1
	60–69	4.7	4.7	7.5	4.1
	70+	0.8	0.8	0.5	1.1
Sector (N = 17,027)	Corporate	86.9			
	Government	1.2			
	Non-profit	11.9			
Host country health risk (N = 17,027)	Low	47.6	49.0	45.2	37.7
	Medium	24.7	26.1	10.0	15.2
	Medium–high	17.9	17.6	16.4	19.9
	High	4.5	3.0	9.5	14.6
	Extreme	5.4	4.3	18.9	12.6

Table 2 shows the correlation matrix for our variables. The highest significant positive correlation is only 0.178 (between health country risk and sector), while the highest significant negative correlation is -0.170 between age and gender. The relatively low correlations between the independent variables indicate that only limited multi-collinearity will be introduced in the analysis when testing our hypotheses. As shown in Table 2, the correlation between host country health risk and age and gender is the highest in the government sector.

Table 2 Correlations among the variables

<i>A. All</i>				
	<i>Gender</i>	<i>Age</i>	<i>Host country health risk</i>	<i>Sector</i>
Gender	1.000	-0.170^*	-0.004	0.146^*
Age		1.000	0.043^*	-0.155^*
Host country health risk			1.000	0.178^*
Sector				1.000
<i>B. Corporate</i>				
	<i>Gender</i>	<i>Age</i>	<i>Host country health risk</i>	
Gender	1.000	-0.153^*	-0.041^*	
Age		1.000	0.076^*	
Host country health risk			1.000	

Table 2 Correlations among the variables (continued)

<i>C. Government</i>			
	<i>Gender</i>	<i>Age</i>	<i>Host country health risk</i>
Gender	1.000	-0.061	0.080
Age		1.000	0.192
Host country health risk			1.000
<i>D. Non-profit</i>			
	<i>Gender</i>	<i>Age</i>	<i>Host country health risk</i>
Gender	1.000	-0.155*	0.017*
Age		1.000	0.033*
Host country health risk			1.000

Note: * $p < 0.01$ (two-tailed).

6 Findings

To examine the first hypothesis predicting differences in closing diagnosis by sector, an overall χ^2 test was performed which revealed that final diagnoses, $\chi^2(38, N = 17,027) = 239.644$, $p = 0.000$ differed significantly by sector (see Table 3). This finding supports Hypothesis 1 that there is an overall relationship between the medical diagnoses that international assignees receive and the employment sector.

Table 3 ICD-9 closing diagnosis by sector (Hypothesis 1)

	<i>Total sample (N = 17,027)</i>	<i>Corporate (N = 14,807)</i>	<i>Government (N = 201)</i>	<i>Non-profit (N = 2019)</i>	χ^2	<i>df</i>
ICD-9 closing diagnosis					239.644*	38
Certain conditions originating in the perinatal period	46	46	<5	<5		
Complications of pregnancy, childbirth, and the puerperium	159	136	<5	20		
Congenital anomalies	43	37	<5	5		
Diseases of the blood and blood-forming organs	36	31	<5	<5		
Diseases of the circulatory system	562	512	16	34		
Diseases of the digestive system	1356	1205	13	138		
Diseases of genitourinary system	741	636	7	98		

Table 3 ICD-9 closing diagnosis by sector (Hypothesis 1) (continued)

	Total sample (N = 17,027)	Corporate (N = 14,807)	Government (N = 201)	Non-profit (N = 2019)	χ^2	df
Diseases of the musculoskeletal system and connective tissue	1120	1011	19	90		
Diseases of the nervous system	233	207	<5	22		
Diseases of the respiratory system	1318	1129	13	176		
Diseases of the sense organs	805	713	10	82		
Diseases of the skin and subcutaneous tissue	434	383	<5	48		
Endocrine, nutritional and metabolic diseases, and immunity disorders	281	251	5	25		
External causes of injury	171	141	<5	30**		
Factors influencing health status and contact with health services	2947	2655	20	272		
Infectious and parasitic diseases	928	758	12	158**		
Injury and poisoning	1881	1585	29	267**		
Mental disorders	321	237	<5	80**		
Neoplasm	210	175	11	24		
Symptoms, signs, and ill-defines conditions	3435	2959	29	447		

Note: * Indicates significant at $p < 0.001$ for the overall relationship;
 ** indicates significant at $p < 0.05$ for the particular cell.

To see whether there was support for specific predicted medical diagnoses by sector (sub-hypotheses 1a, 1b and 1c), additional cell chi-squares were calculated for those relationships where the actual value differed significantly from the expected values. Overall, these findings provide ample support for Hypothesis 1 that certain diagnoses are more prevalent in the non-profit sector and government sectors than in the corporate sector.

Corporate international assignees are less likely than assignees in other sectors to be diagnosed with a particular disease. This may reflect that prior to being sent on assignment, corporations may be more likely to conduct a fitness-to-job series of assessments (including medical exams and screening) and that employees opt out of assignments prior to departure (i.e. self-excluding for those with medical conditions). We did not find support for Hypothesis 1a that corporate international assignees are more likely to be diagnosed with concerns over their health status and to make contact with

health services. Perhaps, owing to their high expectations of employer-provided Western-style medical care while they are on assignment, employers in the private sector are more likely to plan for access to such care for their international assignees and dependents whether at an assignment location or through medical repatriation/evacuation to home or another country.

Employees from non-profit organisations are more likely to have five particular diagnoses: (1) diseases of the circulatory system; (2) diseases of the musculoskeletal system and connective tissue; (3) factors influencing health status and contact with health services; (4) infectious and parasitic diseases; and (5) mental disorders. Several of these diagnoses make intuitive sense for the non-profit sector especially NGOs. Millennials trying to 'find themselves' are often looking at international NGOs as a place of employment. These locations tend to be more dangerous putting employees in harm's way leading to a higher incidence of accidents and trauma. Hence, it could account for the higher level of soft tissue injuries. The higher incidence of 'infections and parasitic diseases' and 'factors influencing health status and contact with health services' of employees of the non-profit sector are directly related to the risk of the host countries to which NGO employees are deployed. Infectious and parasitic diseases are a direct result of lack of sanitation in the bottom 60 countries where NGOs employees are working. It is also linked to lack of sanitation and food preparation in bottom emerging markets. In addition, NGO employees must often rely on local health services, while government and corporate employees can often rely on their own or contracted health services.

Behavioural issues associated with mental disorders for NGO employees could be linked to working in countries with poor infrastructure and difficult circumstances. When employees work under difficult conditions, cannot speak the language, are sleep-deprived, and have limited organisational support, they are more likely to experience a breakdown. The only contradictory finding is the high level of circulatory diseases, as we would assume that non-profit sector employees are considerably younger. As a result, we found partial support for Hypothesis 1b as only three specific diagnoses are higher for international assignees of the non-profit sector, namely they are more likely to receive a medical diagnosis of infectious diseases, injuries, and mental health conditions. The results do not support that they would contact the call centre more often for ill-defined symptoms (due to lack of local support) or diseases of the respiratory system (due to poorer environmental health conditions). Instead, we discovered that international assignees in the non-profit sector are more likely to receive a diagnosis for diseases of the circulatory system and musculoskeletal diseases. Owing to the smaller sample size in the non-profit sectors – compared to corporate – it is possible that the differences in diagnoses can be explained by other factors rather than organisational ones such as demographic factors (i.e. age and gender) or subfield differences as a result of the vast array of different non-profit employers in our sample. In addition, non-profit international assignees are more likely to get the medical diagnosis of 'concerns with their health status' and 'contact with health services while on assignment'. The lack of local medical infrastructure for NGOs likely explains this finding as they are likely to have limited access to quality local medical resources while on assignment in less developed areas.

International assignees from the government sector are significantly more likely to have diseases of the circulatory system and neoplasms than corporate employees. Heart attacks and strokes are more prevalent in older groups and among sedentary people. Being older than employees in the corporate sector (who tend to be in the 30–39 age

group) could explain why they have more cancers which tend to be diseases that peak in middle age. Government employees also lead more sedentary work lives due to their job functions (Buelens and Van den Broeck, 2007). Therefore, it makes sense that government employees are more likely to have medical diagnoses related to heart attacks and strokes which tend to be related to lifestyle diseases. This confirms Hypothesis 1c that international assignees in the government sector are more likely to be diagnosed with diseases of the circulatory system, endocrine diseases, and neoplasm. The hypotheses predicting specific diagnosis by sector show that the employing organisation matters when it comes to illness while on assignment (see Table 4).

Table 4 Significant ICD-9 closing diagnosis by sector (Hypothesis 2)

<i>Sector</i>	<i>ICD-category</i>	χ^2	<i>df</i>	<i>p</i>
Government	Diseases of the circulatory system	13.222	1	$p < 0.001$
Government	Neoplasms	29.289	1	$p < 0.001$
Non-profit	Diseases of the circulatory system	15.987	1	$p < 0.001$
Non-profit	Diseases of the musculoskeletal system and connective tissue	13.797	1	$p < 0.001$
Non-profit	Factors influencing health status and contact with health services	17.163	1	$p < 0.001$
Non-profit	Infectious and parasitic diseases	20.904	1	$p < 0.001$
Non-profit	Mental disorders	46.205	1	$p < 0.001$

The findings, however, also show significant differences by the antecedents of the person (gender and age) and the environmental health risk of the host country. The significant age and gender differences observed are consistent with clinical findings related to different morbidity profiles. With regard to the environmental risk of the host country, when international assignees are sent to a country of 'medium-high' to 'high' and 'extreme' health risk, they are likely to be dealing with factors influencing health status and in contact with health services as well as infectious and parasitic diseases. These findings are, obviously, directly related to the infrastructure of the country and the quality and availability of medical services in these host countries. Yet, data also suggest that conditions that might otherwise be treated in the home country can become problematic for employees even in countries with 'low' or 'medium' health risk levels.

In order to control for the effects of age, gender, and health risk of the host country, we conducted a logistic multinomial regression analysis to get a clearer view of the impact of sector on medical diagnosis (using the non-profit organisations as a default) and to be able to predict the likelihood that an assignee from a particular sector receives a particular diagnosis. For almost every diagnosis, corporate sector employees differed from the non-profit sector, while government employees differed from the non-profit sector only in one diagnosis related to 'diseases of the circulatory system'. This fits our previous explanation of the sedentary lifestyle (and older) government workers. Previously, we could not readily explain the differences in heart diseases and strokes for the non-profit sector as they have many young workers. But, when controlling for age, we can assume that it is likely their 'older' NGO workers are at risk for circulatory system diseases. In fact, the probability (fitted by the multinomial regression) of government sector employees to be diagnosed with 'diseases of the circulatory system' is 8.09% versus 3.5% for the corporate sector and only 1.7% for the non-profit sector.

Table 5 Logistic model for medical diagnoses by sector (Hypotheses 1 and 2)

<i>ICD-9 closing diagnosis</i>	<i>Corporate</i>						<i>Government</i>					
	<i>Coefficient</i>	<i>Standard error</i>	<i>Chi-squared</i>	<i>Sign codes</i>	<i>Coefficient</i>	<i>Standard error</i>	<i>Chi-squared</i>	<i>Sign codes</i>	<i>Probability (%)</i>	<i>Probability (%)</i>	<i>Probability (%)</i>	<i>Probability (%)</i>
<i>(1)</i>	<i>(2)</i>	<i>(3)</i>	<i>(4)</i>	<i>(5)</i>	<i>(6)</i>	<i>(7)</i>	<i>(8)</i>	<i>(9)</i>	<i>(10)</i>	<i>(11)</i>	<i>(12)</i>	
Complications of pregnancy, childbirth and the puerperium	1.2660	0.3013	17.6512	***	1.4805	0.8224	3.2405		0.93	1.51	1.01	
Diseases of the circulatory system	1.086	0.2367	21.0662	***	1.7270	0.6093	8.0348	*	3.52	8.09	1.72	
Diseases of the digestive system	0.8569	0.1740	24.2676	***	0.5293	0.5950	0.7915		8.28	6.57	6.97	
Diseases of the genitourinary system	0.8443	0.1871	20.3651	***	0.3825	0.6520	0.3443		4.37	3.54	4.95	
Diseases of the musculoskeletal system and connective tissue	0.9582	0.1862	26.4693	***	1.2341	0.5792	4.5404		6.95	9.60	4.54	
Diseases of the nervous system	0.8469	0.2786	9.2439	*	1.1442	0.7549	2.2971		1.42	2.02	1.11	
Diseases of the respiratory system	0.5060	0.1692	8.9459	*	0.2387	0.5937	0.1617		7.76	6.58	8.89	
Diseases of the sense organs	0.8185	0.1908	18.4014	***	0.7085	0.6187	1.3111		4.90	5.05	4.14	
Diseases of the skin and subcutaneous tissue	0.8210	0.2185	14.1222	**	0.2128	0.7927	0.0721		2.63	1.50	2.42	
Endocrine, nutritional and metabolic diseases and immunity disorders	0.7413	0.2666	7.7299	*	1.0451	0.7174	2.1225		1.72	2.53	1.26	

Table 5 Logistic model for medical diagnoses by sector (Hypotheses 1 and 2) (continued)

ICD-9 closing diagnosis (1)	Corporate				Government				Corporate		Non-Profit	
	Coefficient (2)	Standard error (3)	Chi-squared (4)	Sign codes (5)	Coefficient (6)	Standard error (7)	Chi-squared (8)	Sign codes (9)	Probability (%) (10)	Probability (%) (11)	Probability (%) (12)	
Factors influencing health status and contact with health services	1.0617	0.1601	43.9607	***	0.3222	0.5684	0.3213		18.24	10.09	13.73	
Infectious and parasitic conditions	0.4993	0.1742	8.2146	*	0.4587	0.6000	0.5845		5.21	6.06	7.97	
Injury and poisoning	0.5654	0.1617	12.2237	**	0.7151	0.5545	1.6631		10.89	14.65	13.48	
Mental disorders	NA	NA	NA		NA	NA	NA		1.65	2.00	4.04	
Neoplasm	0.3229	0.2748	1.3812		1.7206	0.6402	7.2245	*	1.20	5.56	1.21	
Symptoms, signs and ill-defined conditions	0.6675	0.1550	18.5380	***	0.1847	0.5529	0.1116		20.33	14.65	22.56	
									100	100	100	

Note: Significance codes: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.
 Baseline sector = non-profit; baseline ICD-9 diagnosis = mental disorders.
 Four categories of ICD-9 closing diagnosis were removed because of sample size less than five (certain conditions originating in the perinatal period; congenital anomalies; diseases of the blood and blood-forming organs; external causes of injury).
 Column (1) shows ICD-9 closing diagnosis; Column (2) shows the coefficients of the corporate sector in the multinomial logistic regression; Column (3) shows the standard errors of the corporate sector divided by their standard errors; Column (4) shows the chi-squared statistic of the corporate sector (df = 1); Column (5) shows the coefficients of the government sector in the multinomial logistic regression; Column (6) shows the coefficients of the government sector divided by their standard errors; Column (7) shows the chi-squared statistic of the government sector (df = 1); Column (8) shows the probability in percent of a closing diagnosis for the corporate sector as fitted by the multinomial logistic regression; Column (9) shows the probability in percent of a closing diagnosis for the government sector as fitted by the multinomial logistic regression; Column (10) shows the probability in percent of a closing diagnosis for the non-profit sector as fitted by the multinomial logistic regression; Column (11) shows the probability in percent of a closing diagnosis for the corporate sector as fitted by the multinomial logistic regression; Column (12) shows the probability in percent of a closing diagnosis for the non-profit sector as fitted by the multinomial logistic regression.

Other noteworthy sectorial differences in medical diagnoses are that the probability for NGO employees to have ‘diseases of the respiratory system’ is 8.89% which is higher in magnitude and rank (fourth) than for corporate (7.76%, fifth) and government (6.58%, sixth) employees. The same holds true for mental disorders where NGO workers have a 4.04% probability of getting the diagnoses, while the probability is smaller for government (2.0%) and corporate (1.65%) employees (see Table 5). Yet, in each sector, the three medical diagnoses that have the highest probability of occurring are related to well-known risk factors of living in a foreign country (i.e. ‘ill-defined symptoms’, ‘conditions related to health status and health services’, and ‘injuries often as a result of road accidents’). While security is most often mentioned as the reason why a particular host country represents the greatest challenge for international assignees (Brookfield Global Relocation Services, 2014), it is often neglected by employers and international assignees that illness and road accidents –and receiving appropriate care while on assignments – are in fact the most common risk incidents affecting international assignees (Claus, 2011).

To examine the second hypothesis predicting differences in case outcome by sector, an overall χ^2 test was performed which revealed that case outcome type, $\chi^2(24, N = 17,027) = 197.219, p = 0.000$, differed significantly by sector (see Table 6). This provides overall support for Hypothesis 2.

Table 6 Case outcome by sector (Hypothesis 3)

	Total sample (<i>N</i> = 16,980)	Corporate (<i>N</i> = 14,771)	Government (<i>N</i> = 197)	Non-profit (<i>N</i> = 2012)	χ^2	<i>df</i>
Case outcomes					159.394*	12
Advice and referral	7879	6773	59	1047		
Evacuation/ repatriation	747	582	16**	149**		
Inpatient	1478	1302	31**	145		
Inquiry	243	220	<5	19		
Medical-others	134	117	<5	13		
Outpatient	6472	5759	80	633		
Travel services	27	18	<5	6		

Note: * Indicates significant at $p < 0.001$ for the overall relationship;
** indicates significant at $p < 0.05$ for the particular cell.

Outcomes with <5 cases in both government and non-profit sectors have been eliminated. This includes: Global Medical Services Support; Medfit screening; repatriation of mortal remains; and specialty services.

Employees from the government sector are more likely to be referred to a health service and become an inpatient than corporate and NGO employees. They also tend to be using more travel services after requesting assistance. Non-profit employees are more likely to get a referral and use outpatient services. An interesting finding is that employees in the corporate and non-profit sectors are, both, more likely to be evacuated/repatriated as a case outcome related to their RFA than government employees. This provides support for Hypothesis 3 that international assignees in the corporate sector are more likely to be evacuated/repatriated. We omitted to predict that this is also the case for international

assignees in the non-profit sectors. Having both resources and deploying them (as is the case for corporations) and having less resources (as is the case for non-profits) will eventually result in a higher prevalence of medical evacuation of international assignees.

Table 7 Significant case outcomes by sector (Hypothesis 4)

<i>Sector</i>	<i>Case outcome</i>	χ^2	<i>df</i>	<i>p</i>
Corporate	Evacuation/repatriation	7.081	1	$p < 0.01$
Government	Inpatient	11.492	1	$p < 0.001$
Government	Referral	11.190	1	$p < 0.001$
Government	Travel services	23.044	1	$p < 0.001$
Non-profit	Referral	13.774	1	$p < 0.001$
Non-profit	Evacuation/repatriation	41.333	1	$p < 0.001$
Non-profit	Outpatient	23.373	1	$p < 0.001$

7 Discussion

This study addressed a gap in the duty of care literature by assessing how requests for assistance and the subsequent diagnosis and outcomes differ across international assignees working in corporate, government and NGOs. This paper argued that, based on institutional theory and the resource-based view of the firm, sectorial differences of the employer of international assignees can help explain differences in diagnoses and outcomes when international assignees become unwell. We found clear evidence of sectorial differences both in diagnoses and case outcome even when antecedents such as age, gender and country risk are controlled for. More specifically, government employees are more likely to have problems related to heart attacks and strokes – likely due to age and more sedentary work lifestyles. Employees from non-profit organisations were more likely to have diagnoses related to the high-risk nature of their work and the poor infrastructure of the host countries leading to more external causes of injury, infectious and parasitic diseases, and behavioural health issues. The higher incidence of mental disorders among employees of the non-profit sector can be due to both selection (features of the person accepting a high-risk assignment) and causation (the stress as a result of the assignment). As governments and non-profit organisations show a higher morbidity profile for these medical diagnoses than the corporate sector, this may be explained not only by the additional resources and infrastructure that corporations provide to their employees while on assignment but also the overall attention that corporations give to mitigating risks both at the employee and organisational level. With regard to case outcomes, an interesting sectorial difference indicates that government employees are more likely to receive inpatient care (i.e. being hospitalised), while corporate and non-profit sector employees are more likely to be evacuated/repatriated for their medical conditions. Governments usually travel overseas with their own medical infrastructure allowing them to provide inpatient care for their employees. But, the lack of risk-free inpatient services for employees of the non-profit sector, combined with the high-risk countries in which they operate, is likely to lead to more evacuation and repatriation. In spite of the fact that corporations likely invest more time and effort upfront to ensure duty of care than non-profit organisations (e.g. by providing prevention, contracted

medical assistance, and so on) and corporations have more resources to keep employees healthy on location, they still tend to evacuate their employees when it can no longer be treated locally.

Our findings suggest a different interpretation of duty of care obligations for the corporate and non-profit sectors based on institutional theory. While both sectors have the same moral and legal duty of care obligations, the corporate sector operates predominantly in a risk prevention mode and the non-profit sector tends to operate in a preparation mode. This compels each sector to focus on different duty of care activities. The corporate sector – more vulnerable to law suits and reputational risk – tends to use a risk avoidance approach by assessing risk prior to departure, training employees, providing assistance, insisting on controls and compliance, and evacuating when necessary to protect their employees from foreseeable risk, whereas the non-profit sector does not claim to protect its employees as part of their duty of care obligations as they are typically sending their employees into harm's way. Instead, they prepare and inform them to take care of themselves and ultimately evacuate/repatriate their workers when medical conditions necessitate it.

8 Implications

Although exploratory in nature, the fact that our findings are limited to the global organisations that provided assistance for their employees does not allow us to generalise to the entire population of organisations that send international assignees abroad. But, if this sample is biased towards global organisations that have done something and made plans to protect their employees abroad, it boosts our findings that if employers care enough to provide assistance to employees while on assignment abroad, we can expect the population of employers at large (those that did not provide assistance) to fare even worse! Another limitation of our study is that we used the different sectors as a homogeneous field implying isomorphism, while in fact each sector is composed of subfields (such as different industries, different types of government agencies and non-profits). Also, although the assignees have the USA as their country of origin (in terms of home country), it does not mean that they are US nationals. Country of origin could possibly influence the results as their behaviours with regard to medical issues are likely to differ. These limitations provide many avenues for future duty of care research.

Our work has both research and practical implications. First, these results can be replicated with other samples of international assignees. If replications result in similar findings, indicating that sectors matter in health issues encountered by international assignees and the medical assistance that their employers provide, the findings can be probed for a better understanding of both processes and outcomes. For instance, future research can delineate, and perhaps predict, the specific diagnoses the international assignees in different sectors and industries are receiving and the likely outcomes. This has important implications for employers to anticipate the need for assistance and to be able to provide it. It also has implications for awareness and educating employees about duty of care considerations, as well as suggesting future research in this area. An additional area of critical importance for future research is to identify individual, organisational, and cultural aspects that could be associated with increased requests for assistance based on diagnostic differences. Such research can shed more light on this understudied population (i.e. government and non-profit organisations compared to

corporate) and illuminate the steps that these employers can take, with regard to duty of care concerns, to ensure they have safe and beneficial experiences for their international assignees while abroad. As the research on different aspects of duty of care is maturing and a fuller empirical picture is emerging of medical RFAs from international assignees, research will be able to focus not only on understanding but also on taking actionable steps to prevent avoidable trouble among international assignees independent of the sector in which they operate. Further, it may allow employers to relate outcomes of diagnoses to duty of care investments that they make to assume their legal and moral duty of care obligations towards their employees. As we focused on medical RFA, further research could focus, in the same vein, on safety and security incidents. Duty of care is an emerging practical field that is now receiving long overdue research attention.

References

- Bamberger, P. and Pratt, M.G. (2010) 'Moving forward by looking back: reclaiming unconventional research contexts and samples in organizational scholarship', *Academy of Management*, Vol. 53, No. 4, pp.665–671.
- Barney, J.B. (1991) 'Firm resources and sustained competitive advantage', *Journal of Management*, Vol. 17, No. 1, pp.99–120.
- Barney, J.B., Wright, M. and Ketchen, D.J., Jr. (2001) 'The resource based view of the firm: 10 years after 1991', *Journal of Management*, Vol. 27, No. 6, pp.625–641.
- Black, J.S. (1988) 'The relationship of personal characteristics with the adjustment of Japanese expatriate managers', *Management International Review*, Vol. 30, No. 2, pp.119–134.
- Black, J.S., Mendenhall, M. and Oddou, G. (1991) 'Toward a comprehensive model of international adjustment: an integration of multiple theoretical perspectives', *Academy of Management Review*, Vol. 16, No. 2, pp.291–317.
- Black, J.S. and Stephens, G.K. (1989) 'The influence of the spouse on American expatriate adjustment and intent to stay in Pacific Rim overseas assignments', *Journal of Management*, Vol. 15, No. 4, pp.529–544.
- Brookfield Global Relocation Services (2014) *2014 Global Mobility Trends Survey*. Available online at: http://www.brookfieldgrs.com/wp/wp-content/uploads/toolbox.v.2/GMTS_2014-GMTS.pdf (accessed on 15 May 2015).
- Buelens, M. and Van den Broeck, H. (2007) 'An analysis of differences in work motivation between public and private sector organizations', *Public Administration Review*, Vol. 67, No. 1, pp.65–74.
- Claus, L. (2009) *Duty of Care of Employers for Protecting International Assignees, their Dependents, and International Business Travelers*, White Paper, AEA International Pte Ltd., London.
- Claus, L. (2011) *Duty of Care and Travel Risk Management Global Benchmarking Study*, AEA International Pte. Ltd., London.
- Claus, L. (2015) *Duty of Care NGO Sector Report*, International SOS Foundation, InsideNGO and International NGO Safety and Security Association, Washington, DC.
- Claus, L. and Giordano, E. (2013) 'Global employer duty of care: protecting the health, safety, security and well-being of employees crossing borders', in Claus, L. (Ed.): *Global HR Practitioner Handbook*, Vol. 1, Global Immersion Press, Silverton, OR, pp.279–299.
- Claus, L., Maletz, S., Casoinic, D. and Pierson, K. (2015) 'Social capital and cultural adjustment of international assignees in NGOs: do support networks really matter', *The International Journal of Human Resource Management*. Available online at: <http://www.tandfonline.com/doi/abs/10.1080/09585192.2014.1003083> (accessed on 28 January 2015).

- Claus, L. and McNulty, Y. (2014) 'Thematic issue on: employer duty of care – the role of HRM in managing talent in dangerous locations', *Call for Papers: European Journal of International Management*. Available online at: <http://www.inderscience.com/info/ingeneral/cfp.php?id=2237> (accessed on 15 December 2014).
- Darby, R. and Williamson, C. (2012) 'Challenges to international human resource management: the management of employee risk in the humanitarian aid and security sectors', *International Journal of Human Resources Development and Management*, Vol. 12, No. 3, pp.159–186.
- DiMaggio, P.J. and Powell, P.W. (1983) 'The iron cage revisited: institutional isomorphism and collective rationality in organizational fields', *American Sociological Review*, Vol. 48, No. 2, pp.147–160.
- Doernberg, D. (2004) *Sovereign Immunity and/or the Rule of Law: The New Federalism*, Carolina Academic Press, Durham, NC.
- Druckman, M., Harber, P., Liu, Y. and Quigley, R.L. (2012) 'Country factors associated with the risk of hospitalization and aeromedical evacuation among expatriate workers', *Journal of Occupational and Environmental Medicine*, Vol. 54, No. 9, pp.1118–1125.
- Druckman, M., Harber, P., Liu, Y. and Quigley, R.L. (2014) 'Assessing the risk of work-related international travel', *Journal of Occupational and Environmental Medicine*, Vol. 56, No. 11, pp.1161–1166.
- Fee, A., McGrath-Champ, S. and Liu, H. (2013) 'Human resources and expatriate evacuation: a conceptual model', *Journal of Global Mobility*, Vol. 1, No. 3, pp.246–263.
- Grant, R.M. (1991) 'The resource-based theory of competitive advantage: implications for strategy formulation', *California Management Review*, Vol. 33, No. 3, pp.114–135.
- International SOS HealthMap (2013) *Understanding Global Health, Medical Risk Ratings*, International SOS, Philadelphia, PA.
- KPMG International GAPP Survey (2013) *Global Assignment Policies and Practices*. Available online at: <http://www.kpmg.com/Global/en/IssuesAndInsights/ArticlesPublications/Documents/global-assignment-policies-practices-survey-v6.pdf> (accessed on 2 February 2015).
- Meyer, A.D. (1991) 'What is strategy's distinctive competence?', *Journal of Management*, Vol. 17, No. 6, pp.803–829.
- Meyer, J.W. (2007) *Reflections on Institutional Theory of Organizations*. Available online at: http://scripts.mit.edu/~cwheat/ess/papers/Meyer_6.pdf (accessed on 11 August 2015).
- Meyer, J.W. and Rowan, B. (1977) 'Institutional organizations: formal structures as myth and ceremony', *American Journal of Sociology*, Vol. 83, No. 3, pp.340–363.
- Meyer, J.W. and Scott, W.R. (1983) *Organizational Environments: Ritual and Rationality*, Sage, Beverly Hills, CA.
- Moe, T.M. (1989) 'The politics of bureaucratic structure', in Chubb, J.E. and Peterson, P.E. (Eds): *Can the Government Govern?*, The Brookings Institute, Washington, DC, pp.267–328.
- Shaffer, M.A., Harrison, D.A. and Gilley, K.M. (1999) 'Dimensions, determinants, and differences in the expatriate adjustment process', *Journal of International Business Studies*, Vol. 30, No. 3, pp.557–581.
- United Nations Statistics Division – Standard Countries and Areas (2013) *Countries or Areas, Codes and Abbreviations*. Available online at: <http://unstats.un.org/unsd/methods/m49/m49alpha.htm> (accessed on 5 January 2015).
- Williamson, C. (2010) 'Personnel management & security', *Humanitarian Exchange Magazine*, No. 47. Available online at: <http://www.odihpn.org/humanitarian-exchange-magazine/issue-47/personnel-management-and-security> (accessed on 1 June 2015).