h e g
Haute école de gestion
Genève

Hes·so
Haute Ecole Spécialisée
de Suisse occidentale
Fachhochschule Westschweiz
University of Applied Sciences
Western Switzerland

MSc HES-SO in Business Administration

Orientation: Service Management and Engineering

EXTENSION OF DUTY OF CARE TO THE HEALTH ASSESSMENTS FOR TRAVELERS IN MISSION AND EXPATRIATES

By

Jean-Bernard Carbonnel

Under the direction of

Prof. Emmanuel Fragnière

Geneva, 2014

TABLE OF CONTENTS

TABLE DES ILLUSTRATIONS.

1. Thanks

To my parents, without whom this thesis would never have existed; I wrote it too late for them to read it.

To my wife, whose support never yielded despite my numerous physical and mental absences from the house during these last five years to obtain this master's degree.

To my son Frederic, for his help in computing, in which he is much better than his father.

To my masters at the Haute Ecole Specialisee de la Suisse Occidentale (HES-SO) and at the Haute Ecole de Gestion (HEG) de Genève.

Particularly to Professor Emmanuel Fragniere, for his teaching outside the beaten paths and for agreeing to oversee this thesis.

To Jean-Pierre Meynard, for his availability and sensible advice.

To my colleagues and friends at International SOS Assistance.

To Dr. Pascal Rey-Herme and Arnaud Vaissie, who trusted me for all these years in their Group.

To Laurent Fourier, for his precious help, in particular in my review of the literature.

To Ghislain de Kerviler, who proposed this thesis subject to me.

To Dominik Schaerer, who accepted me in his offices in Geneva.

To Dr. Gerard Blanc, particularly for his support and his participation in the review of the interviewed customers' claims exposure.

To Frederic Balme, for his permanent help and support.

To Cedric Fraissinet, Loic Neuville, Martin Frei and Bilger Oldorff, who introduced me to their clients and allowed me to reach my goals of interviews.

To Bertrand Butty, Elodie Domeon, Walter Ter Laak and Eveline Salvisberg, for the time they dedicated to me to extract the data which I needed.

To Laurence Kennedy and Harriet Ibanez for their patience in reviewing my translation into English.

A very big thank you to you all!

2. Abbreviations

AAOHN	American Association of Occupational Health Nurses
ATF	Arret du Tribunal Federal / Judgment of the Federal Court
BDM	Business Development Manager
CEO	Chief Executive Officer
CNA	Caisse nationale suisse d'assurance en cas d'accidents (SUVA) / Swiss National Insurance Fund for occupational accidents (SUVA)
DFAE	Departement Federal des Affaires Etrangeres / Swiss Federal Department of Foreign Affairs
HC	Health Check : program of complete periodic health assessments of Intl.SOS
HCVP	Health Check and Vaccination Program : product of Intl.SOS
HR	Human Resources
HRD	Human Resources Department
ILO / BIT	International Labor Office / Bureau International du Travail
Intl.SOS	International SOS
LNW	Local National Workers
NGO	Non-Governmental Organization
OPA	Ordonnance sur la Prevention des Accidents et des maladies professionnelles (Suisse) / Decree on the occupational accidents and professional diseases prevention (Switzerland)
ROP	Return On Prevention (by analogy to Return On Investment)
TRD	Travel Related Disease

3. Glossary

Country Guides	Guide of global presentation of a country produced by Intl.SOS including sanitary and hygiene recommendations and health alerts. They are accessible to every customer of Intl.SOS by consulting the Web site of Intl.SOS or eventually via the intranet of their clients.
MedFit	New Intl.SOS program for the medical follow-up of travelers in mission and of expatriates. It starts with an on-line health e-questionnaire to be completed by the candidate to travel. The medical profile created that way is then crossed with an evaluation of the risk in the country of destination. The status of aptitude to voyage is finally reviewed by health personnel of Intl.SOS if a health risk surges. This e-questionnaire is eventually followed by a complete health assessment if the questionnaire detects it as necessary.
Travel Tracker	A product of Intl.SOS (1) generating an e-mail with the country guide for every country visited during the recording of an on-line travel request; (2) Sending an e-mail to the traveler and to his hierarchy in case of health or security alert of before and during the collaborator's travel; (3) allowing the employer to know at any time which travelers are in a certain place ("who is where") and who reserved a plane ticket for a given destination ("who is going to go where"). Useful tool both for the security of the employee and for the duty of control of the employer.
(Hospitalisation) Repricing	Technique of negotiation for reducing the hospitalization expenses in the USA.

4. Abstract

Although the security aspect of the duty of care for travelers in mission and expatriates has been well studied, this is not the case for its medical side. The goal of this study is to make a panorama of the practices in duty of care implemented in the medical domain by employers in Switzerland, to see if they consider health checks as part of their Duty of Care and how they perceive the concept of a medical e-questionnaire to select the people who would need to pass a health check before a departure abroad. In that purpose, a qualitative inquiry was made with nine great Swiss companies and six international organizations based in Geneva. This allowed the creation of a list of the said practices, to see how the interviewed people were organizing their health checks for the concerned population and to know which value they would give to an e-questionnaire. A study of their medical assistance claims exposure was made with the goal of seeing the impact of the health checks on it. A "tangibilization[1]" of Duty of Care in the medical domain is proposed that could be expanded and become a tool for following-up its progression and for communicating.

Key words: duty of care – health assessments – on-line health questionnaire. .

[1] Neologism used to mean a "way to make tangible".

1. INTRODUCTION

"An ounce of prevention is worth a pound of cure."[2]

The *Duty of Care* is a notion often used nowadays. It concerns many issues, in particular security ones. However we will show in our review of the literature that the medical aspect has been little studied. This is why we decided to focus our study on this domain of the Duty of Care.

This concept of Duty of Care allowed big improvements, particularly where the employees were the most exposed (industry, construction and public works, pharmaco-chemistry, etc.). On the other hand, few companies have reflected deeply enough upon this duty to their travelers in mission and their expatriates. Nevertheless, they expose these collaborators to an environment unknown to them, to work conditions very different from those they are accustomed to. There is thus a whole work of preparation to be done upstream of the journey and the stay abroad so that everything goes well for them.

If the ethical part of it can be considered as the *primum movens* of the Duty of Care today, it was not always the case. The state had to remind the employers of their duties to their staff by setting up legislation. We shall look at this legislation by the filter of the travelers in mission and the expatriates to grasp the possible exposure of the employers if they fail to respect the Swiss laws on the subject.

This chapter will especially be dedicated to the definitions. We will introduce successively the Duty of Care with a brief history, the notions of travelers in mission and of expatriate from the perspective of this study and the medical check-ups and e-questionnaires such as are used today. We shall end by presenting the purpose of our study.

1.1. Duty of Care

The term Duty of Care came to us from Anglo-Saxon countries. Although the Duty of Care Is considered as a legal principle, our researches allowed us to find a formal definition in none of the consulted legislation. Fayol in France is a precursor in 1916[3]. The first judicial decision referring to it, returned/made by Judge Benjamin Cardozo, took place the same year in New York, USA [4]. This notion is judged according to a certain number of factors that were defined in California in 1968[5]. The Duty of Care then spread in the other American states, then in Great Britain and finally all over the world, particularly this last decade.

The first decisions related to the Duty of Protection mostly concerned cases of responsibility for products and in real estate problems, renting in particular.

The *Free Dictionary* of Farlex gives this global definition: "a requirement that a person act toward others and the public with watchfulness, attention, caution and prudence that a reasonable person in the circumstances would"[6]. The Foundation of International SOS (Intl.SOS) dedicated to the Duty of Care gives a definition adapted to the business travelers and to the expatriates: «Duty of Care refers to the moral and legal obligations of employers to their employees, contractors, volunteers and related

2 FRANKLIN, Benjamin; "Protection of Towns from Fire"; The Pennsylvania Gazette: Philadelphia: February 4th, 1735.

3 FAYOL, Henri ; «Administration industrielle et générale» ; Bulletin de la Société de l'Industrie Minérale, 1916, N° 10, 5-164, Regular republications by Dunod since 1918. The « *Mesures prises contre les accidents* » are part of the chapter *Sécurité* of the Table of contents of the table *Prévisions annuelles ou décennales*, p-53 of the publication of 1999.

4 Decision of the Court of Appeal of New York in the case MacPherson v. Buick Motor Co., 217 N.Y. 382, 111 N.E. 1050 (1916) made by Judge Benjamin N. Cardozo.

5 Jurisprudence Rowland v. Christian (1968) 69 C2d 108

6 Cited from : http://legal-dictionary.thefreedictionary.com/duty+of+care (visited on March 20th, 2014)

family members in maintaining their well-being, security and safety when working, posted on international assignments or working in remote areas of their home country»[7]. Both sources remind that any breach could be legally considered as a negligence, even a fault.

Three important notions must be noted on the legal plan.

- From 1916 Judge Cardozo limited the Duty of Care to the notion of "reasonableness", resumed/taken back recently under the name of "principle of proportionality".
- The notion of separation of time and of space between the people plays no role in the assessment of the negligence or the fault: this is very important for the business travelers and the expatriates.
- It is for the defendant to prove that he/she took all the reasonable precautions to protect the plaintiff.

In Switzerland, the lawyer/avocado Michel Chavanne, studied the Duty of Care under the Swiss law. He issued recommendations which will be studied in the chapter of Review of the literature. We shall rely on these definitions of the Duty of Care for this study.

1.2. Definition of traveler in mission and of expatriate / detached

The word "business traveler" not suited to organizations, we preferred to use the expression "**traveler in mission**" which is more generic, even if the UN organizations tend to use the words “traveling people”. The definition of a traveler in mission seems rather simple apparently: it concerns *a priori* a person, employed or not, sent by a corporation or an organization outside his/her usual city of work for a short period of time, generally some days. It includes external experts, for example. In summary, we will use indifferently all the terms used above, including the one of **traveler,** for all the people going abroad for a short period of time at the request of a corporation or of an organization.

Here, the word **collaborator** will cover the staff and non-staff.

For the Swiss settling down abroad to work for a corporation based in Switzerland, we speak about detachment[8] rather than expatriation, as well as for the international organizations. The period of detachment can be very variable according to the conventions signed by the country of destination and Switzerland. Generally from 12 to 72 months, they can even be extended to become long-term without any precision. We shall keep here only the term of **expatriate** whatever is the situation. Please note that the term of expatriate will mean here **the collaborator and the family possibly accompanying him/her.**

In fact, this notion of length of stay has not much importance here. Indeed, all the actions in favor of the Duty of Care must be realized upstream of the travel. All the measures taken after the departure of the traveler or the expatriate would only be catching up on action which should have been taken before.

Finally all these terms will apply equally to a man or a woman.

1.3. The health assessments and e-questionnaires

Certain companies and organizations set up medical check-ups for their employees. For that purpose, either they use their internal medical service when they have one, or they subcontract this service. In-house medical services are centralized, generally at the head-office of the corporation or of the organization, or decentralized with a medical department in the countries where they are represented or on their sites (This word means here construction sites, factories, yards or oil platforms, etc.). The

7 Cited from : http://www.internationalsosfoundation.org/about-us/duty-of-care/ (visited on April 15th, 2014)
8 OFAS – See : http://www.bsv.admin.ch/themen/internationales/02765/index.html?lang=fr (visited on April 15th, 2014)

subcontracted medical services are often private Centers of Occupational medicine. In particular, the UN agencies often use doctors' network of WHO. Finally some use products of occupational medicine of Intl.SOS such as the Health Check and Vaccination Programme (HCVP) or the Health Checks (HC). They standardize, organize and coordinate the fit-for-work examinations of a client corporation in order to provide examinations of standard quality and a consistency of results whatever the nationality, the place of residence and the workplace of the employee.

We saw that the Duty of care was to be "reasonable", giving effect to the principle of proportionality. The HCVP or HC medical check-ups are rather stringent and relatively expensive. In 1995, Whitaker and Aw[9] found 98 % of the pre-employment medical examinations in the British National Health System (NHS) to be normal. In 2011 Intl.SOS studied the results of the systematic medical check-ups of their customers and 80 % of their results were negative[10]. Intl.SOS then developed a new concept: an on-line health questionnaire crossed with the risk ratio in the country of destination. If no contraindication is detected, it will not be necessary to pass a complete medical check-up. If an anomaly appears, a healthcare professional reviews the questionnaire, if necessary contacting the collaborator to clarify certain points. He confirms whether it is necessary to pass a medical check-up. This on-line health questionnaire is called e-MedFit® at Intl.SOS.

We shall use "**e-questionnaire**" for this type of on-line health questionnaire aimed at determining if it is necessary to pass a classical medical check-up or not.

Some other e-questionnaires exist in Switzerland. We find Audit-Santé developed by the Pharmacie Principale[11]. Although the latter approached the HR managers in French-speaking Switzerland, these questionnaires are not adapted to the screening of the travelers in mission and the expatriates before a departure abroad. Their general aim is to make a well-being diagnosis of the individual. On the other hand, one of the interviewed companies uses an e-questionnaire in the sense of the e-MedFit® of Intl.SOS aimed at their travelers and their expatriates. It was set up by their medical insurer.

Abroad, we heard of two e-questionnaires, without being able to assert that we are exhaustive. The UN is experimenting with one, intended only for the UN agencies, aimed at the pre-employment screening of certain staff only. We were not able to have details of it. In Great Britain, Healix International, a directly rival corporation of Intl.SOS, developed one called "International Health Screening".

———

These three notions being defined, we can present this study..

1.4. Goal of the study

For the reasons explained in the beginning of this chapter, we will concentrate on the medical dimension of the Duty of Care such as practiced by some Swiss companies and international organizations based in Switzerland for their travelers in mission and their expatriates. Indeed, such a journey or a stay abroad exposes this population to risks different from those of their working conditions in their country of origin and for which they are not spontaneously prepared.

For that, we give ourselves a triple objective.

---

9 WHITAKER Stuart et AW TC; "Audit of pre-employment assessment by Occupational Health departments in the National Health System."; Occupational Medicine (Lond) (1995) 45 (2):75-80

10 DRUCKMAN Myles et SPITZNAGEL Carl: « Saving Lives and Saving Costs: The Return on Investment Case for Pre-Travel Screening »; International SOS Briefings:2011:4p. Available on http://dialoguesondutyofcare.com/2014/05/protecting-the-health-security-well-being-of-employees-crossing-borders/?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+DialoguesOnDutyOfCare+%28Dialogues+on+Duty+of+Care%29 (visited on June the 16th, 2014)

11 http://www.pharmacie-principale.ch/prestations-exclusives/audit-sante/ (visited on June the 16th, 2014)

1. The first one is to know what these companies and organizations set up in order to satisfy the Duty of Care to this population on the medical side.
2. We shall ask if the preventive medical check-ups are considered by the interviewees as being a part of the Duty of Care for this population of collaborators, if and how they are realized or why they were not proposed until today.
3. Finally we shall question them about the health e- questionnaires and the place which they give them versus the classical medical check-ups.

We shall complete this survey by a study of the assistance claims[12] of the interviewees with the aim of determining the number and the cost

- of the health problems occurring abroad in this population of travelers and expatriates;
- of the health problems that could have been avoided, in particular if a health assessment had been done before the departure.

1.5. Scope and limits of the study

This study was performed within Intl.SOS. The core business of this corporation is the medical care of their clients, intended by definition for travelers, expatriates and their families. Thus the study concerned only the clients of Intl.SOS. On one side, it reduced our field of investigation; on the other side, it allowed us to reach easily very large Swiss companies and international, UN and non-governmental organizations, which we would have had difficulty approaching if we had not been introduced by Intl.SOS.

The second advantage of making this study from within Intl.SOS is that we had access to their clients' claims. It allowed us to complete our survey by a study of the cost of the medical problems abroad. However, having to respect the medical confidentiality, we may publish only the global results of these claims and not their details.

The respect for the anonymity of the interviews was an indispensable condition for their acceptance. We received the authorization to reveal the name of the corporation or the organization only once, in the list of the interviewees only. A single corporation refused for its name to be quoted.

We shall study here only the medical domain of the Duty of Care. Indeed, the literature is essentially concentrated on the security aspects of this duty. However, it must be remembered that, in the reality both domains are complementary and entangled.

———

Now we are going to see what is described in the literature on the medical domain of the Duty of Care.

12 Total of the costs generated by the assistance cases of a client.

2. REVIEW OF THE LEGISLATION AND OF THE LITERATURE

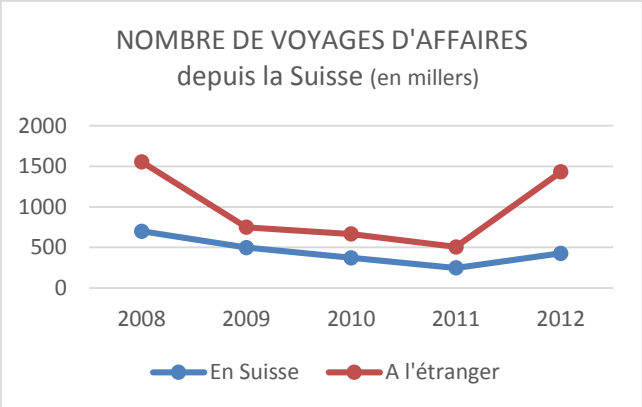
We found nothing in the literature on the medical domain of the Duty of Care to the travelers in mission and the expatriates. We found very few texts on the preventive health assessments in relation to the Duty of Care to the population in question. They concern assistance companies who propose to organize these physical examinations: International SOS (web site of the corporation[13] and of their Foundation[14]) and Europ Assistance[15] in particular (apparently Allianz Global Assistance do not mention the health checks as part of their Duty of Care[16]). Although justified, these publications are mixed with commercial interests and could invite criticism concerning the conflict of interests. Nevertheless, some of their studies concerning internal statistics are interesting and we shall take into account of the most relevant ones.

Not finding much on the direct subject of our study, it seemed interesting to us to look for the state of the knowledge on the various subjects in connection with our study, meaning the number of business travelers in Switzerland, the legislative part of the Duty of Care in companies in Switzerland, the vision according to the international standards in Health and Safety in Labor, the risks of health, accidents and death to which our population is going to be exposed during a travel or during a stay abroad, The possible worsening of this risk according to the country of destination, without forgetting to make a brief point on the qualitative inquiries.

2.1. Number of business travelers

The World Tourism Organization counted 1,035 billion arrivals of international tourists in 2012, among which 14 % (that is 72 450 000) travelled on business[17]. In Switzerland, the Federal Office of the Statistics counted 1 432 000 business trips abroad in 2012[18].

Table 1 - Number of business trips with overnight stays.



Source: inspired from OFS (See Note 17).

13 See : https://www.internationalsos.com/en/dutyofcare.aspx (visited on April 13th, 2014)
14 International SOS Foundation: The responsibility of Duty of Care for people traveling away from home Available on http://www.internationalsosfoundation.org/?wpfb_dl=27 (visited on April 14th, 2014)
15 Inside-Out newsletter March 2014, page 5, last line. Available on http://www.gcs.europ-assistance.com/sites/default/files/gcsebizplugandselleuropassistancecom/download-doc/pdf/gcsnewslettermarch2014lr.pdf (visited on April 14th, 2014)
16 http://www.allianz-assistance.co.uk/corporate/search.aspx?search_value=duty+of+care (visited on April 14th, 2014)
17 UNWTO – Faits saillants Edition 2013, 16p, page 4. Available on http://www.unwto.org/facts/menu.html, UNWTO Tourism Highlights (visited on March 10th, 2014).
18 Office Fédéral de la Statistique > Thèmes > 10 - Tourisme > Comportement en matière de voyages > Données détaillées > Données depuis 2008. Available on http://www.bfs.admin.ch/bfs/portal/fr/index/themen/10/04/blank/data/04.html (visited on March 10th, 2014).

We shall note a resumption of the number of the business trips of the Swiss abroad in 2013, returning almost to the same level as in 2008. The decrease from 2009 to 2011 was probably due to the economical-financial crisis of the period.

This curve with an ascending trend tends to confirm the results of a study of PWC[19] who wrote in 2010 “we predict a further 50% growth in [expatriated] assignments by 2020”.

2.2. Review of the legislation

Numerous texts govern the work in Switzerland. We shall confine ourselves to those directly relevant to our study.

2.2.1. On the medical assessments in occupational medicine in Switzerland

The preventive health checks in occupational medicine are governed by the *Ordonnance sur la Prevention des Accidents et des maladies professionnelles (OPA)*[20]*, Titre IV - Prevention dans le domaine de la medecine du travail*, in particular the articles 70 to 74. The article 70 clarifies the subjection to these exams and stipulates that the decision belongs to the Swiss National Insurance in case of accidents (Caisse Nationale d’Assurance en cas d’accidents - CNA)[21] according to "the nature of the works performed, the experience acquired and the lessons of the science".

We can note that the CNA establishes its rules of prevention, including those for the medical exams in occupational medicine, according to the accidents for which it had to pay refunds or compensation. It is one of the reasons why the systematic preventive physical examinations for all the employees do not exist in Switzerland, all the more for the travelers in mission and the expatriates.

2.2.2. On the Duty of Care

In Switzerland, as elsewhere, there is no legal definition of the Duty of Care but the main articles of law taken in reference to it are:

Art. 6 LTr (Loi sur le travail – Law on Labor) – Obligations of the employers and the workers.[22]

Paragraph 1: “To protect the health of the workers, the employer has to take all measures which experience demonstrates to be necessary, which the state of the technique allows to apply and which are adapted to the conditions of operation of the corporation. Moreover, he has to take all the measures necessary to protect the personal integrity of the workers. »

Paragraph 3: “The employer requires the workers to collaborate in the protective measures for health. They have to assist the employer with the application of the rules on the protection of the health.”

19 PriceWaterhouseCooper ; “Talent Mobility 2020. The next generation of international assignments.”;2010. 36p. p4. Report available on http://www.pwc.com/gx/en/managing-tomorrows-people/future-of-work/pdf/talent-mobility-2020.pdf (visited on April 10th, 2014)

20 Decree on the Prevention of Accidents and occupational diseases, Title iV, prevention in the domain of occupational medicine. See http://www.admin.ch/opc/fr/classified-compilation/19830377/index.html (visited on April 10th, 2014)

21 Better known under its German acronym SUVA – See their website www.suva.ch

22 Cited and translated from http://www.admin.ch/opc/fr/classified-compilation/19640049/index.html (visited on October 7th, 2014)

Code of Obligations Art 328[23]

> **Paragraph 2:** "He [the employer] takes, to protect the life, the health and the personal integrity of the worker, the measures commanded by experience, applicable as is of the technique, and adapted to the conditions of the operations or of the household, as far as the work relationships and the nature of the work allow to require it from him fairly."

So according to the judgment of the Federal Court **ATF 110 II 163**, "The art. 328 al. 2 CO requires the employer to set-up, to protect the life and the health of the worker, the measures commanded by experience, applicable as is of the technique, and adapted to the conditions of the operation or of the household, as far as the work relationships and the nature of the work fairly require it from him. It is up to him/her in particular to educate the workers in an adequate way" … "even if the degree of probability is not considerable there" (ATF 95 II 141).

This Duty of Care in Switzerland to the business travelers and the expatriates was particularly studied and developed by the lawyer/avocado Michel Chavanne. Further to his experiences with Non-governmental organizations (NGO), he issued recommendations[24]. The first one was to define a legal place of jurisdiction in the contracts between employers and employees also applicable for the travels in mission and the expatriates.

Then, the Duty of Care comes in quadruple duties[25]:

- of information
- of prevention : it is necessary to reasonably anticipate the possible risks and to do what can be done to prevent them
- of control, ensuring that the promulgated rules are followed
- of intervention (Art 321d CO): The employer has the duty to promulgate rules of conduct, including, under the circumstances, regarding outside places of work and working hours, in particular if he considers that the employee could be put in danger if he does not respect these rules (e.g., to forbid an employee to go out at night abroad in case of local security danger).

In case of an acknowledged violation of the Duty of Care, the employer would expose himself to the three following types of penalties:

- civil sanctions, of reparation
- criminal sanctions, in particular for negligent homicide, physical injury by negligence and endangerment of the life of others
- administrative sanctions, such as fines, cancellation of work permit, suspension of activity, etc.

No Swiss employer has been condemned criminally to our knowledge as at July 1st, 2013. However, considering the circulating rumors of compensation cases not registered, it is likely that friendly settlements have taken place between parties without any publicity to avoid tarnishing the image of the corporation or the concerned organization. Abroad, there is an important jurisprudence in numerous countries[26].

In Switzerland, the employer's Duty of Care is counterbalanced by the employee's Duty of Diligence and Loyalty to his employer (Art. 321a CO). So, the worker has to execute the work which was given to him with care and to protect the interests of his corporation. Furthermore, he has to act as a "normal" person, "reasonably", and not expose himself mindlessly. By not respecting this duty, the employee

---

23 Cited and translated from http://www.admin.ch/opc/fr/classified-compilation/19110009/201401010000/220.pdf, page 101 (visited on October 7th, 2014)

24 CHAVANNE Michel et av.: « Can you get sued in Switzerland ? The rights and obligations of Swiss companies and organisations vis-à-vis their travelling and expatriate staff. »:Security Management Initiative ; 2012 ; 31p. Available on http://www.securitymanagementinitiative.org/ or directly on https://www.internationalsos.com/en/files/SMI_GB_web.pdf (visited on September 7th, 2014).

25 Cited opus (CHAVANNE :2002)

26 See Annexe I.

would expose himself to possible sanctions by his employer and would relieve him partially of his Duty of Care.

2.3. The Duty of Care in the international standards

Two international standards in particular deal with the Duty of Care,

- an English one, OHSAS 18001:2007, written after the refusal of the group ISO to make one themselves. A certification exists, made in Switzerland for example by SQS[27] or SGS[28].
- one emanating from the International Labor Office (ILO), ILO-OSH in 2001.

We did not get our hands on the complete text of these standards because they are rather expensive. These standards not belonging to our core-subject (they deal with health and safety at work in a general way), we did not try further to get them.

However, we found an interesting comment of Tiffany Mathiason who studied the ILO Occupational Safety and Health Convention of 1981 and the Promotional Frame for Safety and Health of 2006[29]. For her, the Duty of Care applies in full to the business travelers and to the expatriates according to the usual international labor laws.

2.4. Review of the literature on the Duty of Care to the business travelers and the expatriates as seen by the corporations

Lisbeth Claus released a survey of world reference on the Duty of Protection[30]. The inquiry concerned 718 employees working in 628 companies present in 50 countries (among which 15 % are part of the Global 500). This investigation showed very diverse degrees of maturity in Duty of Care according to the interviewed companies. She asked them whether their company was following 100 best practices which she had selected, related to the Duty of Care to their travelers and/or expatriates. The most usual 25 best practices are listed in the following table.

27 http://www.sqs.ch/fr/Offre-de-prestations/Produits/Normes-principales/page42877.aspx?ncode=H.OHS07 (visited on October 7th, 2014)

28 http://www.sgs.ch/fr-FR/Health-Safety/Quality-Health-Safety-and-Environment/Health-and-Safety/Health-Safety-and-Environment-Management/OHSAS-18001-Occupational-Health-and-Safety-Management-Systems.aspx (visited on October 7th, 2014)

29 MATHIASON, Tiffany; "Are you part of the global workforce?: an examination of the "duty of care" to business travelers and international assignees under the ILO occupational health and safety conventions and as emerging international customary law."; American University International Law Review, 2013, Vol. 28 Issue 3, p873-904. 32p.

30 CLAUS, Lisbeth "Duty of Care and Travel Risk Management Global Benchmarking Study"; AEA International Pte. Ltd.; 2011; International SOS Benchmarking Series.
Complete text available at http://www.internationalsosfoundation.org/?wpfb_dl=54 (visited on February 2nd, 2014)

Table 2 - The first 25 best practices in Duty of Care implemented by companies.

Order	Selected good practices in Duty of Care (out of 100 questions)	%(*)
1	Requires employees to book travel through approved provider	86
2	Makes employees aware of the 24-hour advice and assistance number to call	81
3	Has a crisis management team to respond to expatriate/international travelers incidents	68
4	Has a crisis management plan for traveling employees	67
5	Verifies whether the employee is authorized to travel to location	66
6	Has multiple approved communication for traveling employees/assignees	64
7	Briefs employees about risks prior to travel	64
8	Prescribes specific travel behaviors to employees	61
9	Informs employees of changing risk conditions when traveling	61
10	Tracks the changing nature of risk for the locations where employees are traveling	58
11	Provides pre-trip information in writing to employees	55
12	Has established communication protocol with traveling employees	51
13	Tracks employee travel through a travel tracking system	46
14	Has a "Duty of Loyalty" among employees	46
15	Has “refuse to work" policies for risky assignments	44
16	Has mandatory briefings prior to employee travel to high-risk locations	43
17	Analyzes employee global mobility data	43
18	Ensures that traveling employees get required immunizations	42
19	Has ability to show that employees read and reviewed travel policies and procedures	36
20	Knows where employees are on the ground at all times and can immediately locate	36
21	Has employee kidnapping and ransom insurance	35
22	Has a reputational risk management plan for employee travel incidents	33
23	Conducts person-location risk assessments prior to expatriate assignments	32
24	Has a rest break policy	31
25	Requires employees to sign that they understand travel risk	20
(*) Percentage of corporations having answered "yes".		

Inspired from Figure 13 « Selected Duty of Care Practices » p.28 of the cited opus (CLAUS:2011).

Note that the most followed practice (to oblige employees to book their plane tickets in a travel agency selected by the employer) is followed by 86% of the corporations, that 50% of the interviewed ones follow only twelve of the one hundred good practices proposed by Lisbeth Claus and that the 25th most followed good practice is implemented by only 20% of the corporations, which shows a large potential of improvement globally.

Questioned about possible best medical practices, Lisbeth Claus sent us the following ones not published in her Global Benchmarking Study[31] :

47% have medical services for their expats in the host country
67% have medical alerts by destination prior to departure
52% have travel restrictions by medical alert levels
65% provide the necessary health information to employees prior to departure
72 % provide the necessary medical immunization prior to departure
25% have access to the international assignee/traveling employee's medical history.

Another notable element, the examinations and preventive medical assessments for the travelers and the expatriates, are not a part of the most common twenty five practices of this survey.

31 CLAUS, Lisbeth; unpublished results of the Global Benchmarking Study; 2011.

On his side, Ryan Leki[32] approaches the subject of the medical check-ups before a departure. His book provides to the travelers a "Model to Travel with Wisdom" which begins in chapter 2 with a proposal of introspection on one's own medical profile to be made by means of a health questionnaire; he recommends to the traveler to visit a doctor where there is doubt about one's own health state.

2.5. The health risks to which the travelers in mission and the expatriates are exposed

2.5.1. The Travel Related Diseases (TRD)

RT Ryan[33] asserts that 5 % of the travelers need a consultation for care after their return of journey and describes the diseases noticed.

The travel clinic of the *Hopital Pitie-Salpetriere* in Paris[34] published a study of the sickness cases seen in consultations on the return of travelers, separating the expatriates and the business travelers from the other categories of consulting patients. We took the Table 2 page 314 of Dr. Ansart's article from which we removed the immigrants' data, who do not concern our study, but kept the tourists' ones as a comparison. We obtain the following table:

Table 3 - Diseases in business travelers, expatriates and tourists.

	Expatriates			Business Travelers			Tourists			Total	
	n	% Grand Total	% Total Expa-triates	n	% Grand Total	% Total Business travelers	n	% Grand Total	% Total Tourists	n	% Grand Total
Diseases	88	21,2%		42	10,1%		282	68,0%		412	
Skin diseases	23	5,5%	26,1%	9	2,2%	20,9%	66	15,9%	23,2%	98	23,6%
Gastro-Intestinal diseases	24	5,8%	27,3%	14	3,4%	32,6%	68	16,4%	23,9%	106	25,5%
Respiratory diseases	0	0,0%	0,0%	4	1,0%	9,3%	51	12,3%	18,0%	55	13,3%
Malaria	16	3,9%	18,2%	6	1,4%	14,0%	12	2,9%	4,2%	34	8,2%
Schistosomiasis	4	1,0%	4,5%	1	0,2%	2,3%	6	1,4%	2,1%	11	2,7%
Viral hepatitis	3	0,7%	3,4%	0	0,0%	0,0%	4	1,0%	1,4%	7	1,7%
Urinary tract infections	2	0,5%	2,3%	2	0,5%	4,7%	14	3,4%	4,9%	18	4,3%
Sexually Transmitted Dis.	2	0,5%	2,3%	1	0,2%	2,3%	7	1,7%	2,5%	10	2,4%
Tuberculosis	0	0,0%	0,0%	0	0,0%	0,0%	2	0,5%	0,7%	2	0,5%
Dengue fever	4	1,0%	4,5%	4	1,0%	9,3%	8	1,9%	2,8%	16	3,9%
Others‡	10	2,4%	11,4%	2	0,5%	4,7%	46	11,1%	16,2%	58	14,0%
Total	88	21,2%	100%	43	10,4%	100%	284	68,4%	100%	**415**	100%

‡Other diseases include rheumatism, viral disease including herpes zoster and herpes, psychiatric disorders, human immunodeficiency virus infection, thrombosis, adverse drug reactions, gnathostomiasis, kidney or urinary lithiasis, and miscellaneous.

The Grand Total of the cases is 415, 3 more than the total number of the patients because some of them presented more than one pathology. We can notice that the number of the business travelers and the expatriates together having consulted (88 + 42 = 130) is more or less half the number of the tourists (282) over the same period of time; this is a lot considering the number of tourists compared to the two other populations. The business travelers are the most hit by gastro-intestinal problems. Curiously, the tourists show proportionally less malaria and dengue fever cases than the business

32 LEKI, Ryan S.; « Travel Wise: How to Be Safe, Savvy and Secure Abroad"; Boston: Intercultural Press, Nicholas Brealey Publishing Company: 2008.

33 RYAN, Edward et al.; "Illness after International Travel"; N Engl J Med;2002;347:505-516, DOI: 10.1056/NEJMra020118

34 ANSART Séverine et al.; "Illnesses in travelers returning from tropical countries ; a prospective study of 622 patients"; Journal of Travel Medicine; first published online 8 MAR 2006; Volume 12, Issue 6. Pages 312-318

travelers and the expatriates (*by negligence of the prophylaxis?*). Note that the line «Others» represents a significant number of cases.

A study by Dr. Wieten[35] of the Amsterdam Medical Center Travel Clinic, a hospital specialized in travel medicine, shows that a person with a past medical history has globally twice the chance of developing a Travel Related Disease (TRD) than a person without one. In that study, the reason for traveling, for leisure or business, is unknown. According to the Table 4 of the study, 13% of the people without past medical history developed a TRD versus 27.8% in people with one. If we analyze the latest ones, we can notice that it concerns, among others, immune-depressed patients (that is 8.4 % of the TRD) and HIV carriers[36] (that is 3.5% of the TRD). These patients are much more susceptible to developing an infectious disease than the other people and thus their counting induces an over-estimate of the number of cases. It is to be noted that, for the patients with (at least) one past medical history, whether they are older or younger than 60 does not change the risk of TRD, although the people older than 60 had much more often pre-existing medical conditions than the younger ones.

2.5.2. Impact of the immunizations

Dijkstra and al.[37] summarized in a table the monthly incidence per 100,000 non-immunized people among expatriates and locals and compared them to travelers for infectious diseases that can be avoided by immunization. They are lower of course than those of the expatriates because of shorter stays, of activities less at risk and sometimes of living conditions close to that of the local people (especially for the staff of the NGOs). Dijkstra's table was reshaped to classify the infections in a decreasing order of incidence.

Table 4 - Monthly incidence per 100,000 non-immunized people.

Infectious disease	*Travelers*	*Expatriates or Locals*	*Population*
Hepatitis A	300–600	1,700–1,900	Missionaries, volunteers
Hepatitis B	80–240	170–500	Volunteers
Tuberculosis	280	790	Health care workers
Yellow fever		100–750	Local population, Africa
Rabies (bites, PEP*)	1644	150–360	Experts/volunteers
Typhoid fever	3–30	45	Local population
Cholera	0.2–13	44	Embassy personnel
Japanese encephalitis	0,008	8.3–20	Local population
Tick Borne Encephalitis		2.6–16.7	Military, local population
Meningococcal meningitis	0.04–200	<20–60**	Local population, Africa

Local population: attack rates measured in the local population give an estimate of the potential risk for non-immune expatriates living in similar conditions (aid workers, volunteers, military personnel).

*PEP = post-exposure prophylaxis;

**Incidence < alert and epidemic threshold in sub-Saharan Africa.

We shall note the important preventive role of the vaccination. Even if the protection is not 100 %, it avoids a large number of cases of infectious diseases or limits them strongly, with a very positive socioeconomic impact.

35 WIETEN , Rosanne and al.; "Health Risks of Travelers With Medical Conditions -A Retrospective Analysis"; Journal of Travel Medicine, 2012, Volume 19, Issue 2, p 104-110.
36 AIDS virus
37 Cited opus (DIJKSTRA:2005)

William Bunns[38] identifies the necessity for the companies to establish immunizations programs as part of a larger plan of preparation for the travel or the stay.

2.5.3. The deaths abroad

A study on French people[39] estimates that there was, according to the sources, between 2,500 and 5,500 deaths per year among the travelers (without distinguishing between tourists and travelers in mission) and the expatriates between the years 2000 and 2003. They were so distributed:

Table 5 - Causes of death during a travel or an expatriation.

CAUSES OF DEATHS ABROAD	Percentage in travelers + expatriates abroad	Percentage in France	Occurrence abroad compared to the one in France *
ACCIDENTS-TRAUMAS	**49.5%**	**7.7%**	**6.4 times more**
Traffic accidents	28.1%	1,4%	20 times more
Daily life accidents (drowning, domestic, etc.)	18.1%	4.1%	4.4 times more
Homicides	1.1%	0.1%	10 times more
Suicides	2.1%	2.0%	Identical
NON ACCIDENTAL CAUSES	**50.5%**	-	
Cardio-vascular	27.4%	29.9%	Identical
Infectious diseases	1.4% (Malaria, dengue fever)	1.9%	Différent pathogenous agents
(*) approximate figures because the number of deaths varies according to the sources.			

In this study, traffic accidents are the most common cause of death abroad, closely followed by cardio-vascular problems. This was confirmed by the Americans. In 1991, Hargarten[40] and more recently in 2009, Tonellato[41] count 27% and 40% of deaths by road accident in their respective articles on deaths of American citizens abroad. This « longitudinal » study is not long enough for being definitively conclusive but it would tend to show that this risk is increasing. Tonellato shows that the risk of death by traffic accident is increased in countries with low and medium incomes. Moreover, his study also shows that the number of violent deaths by aggression is higher than those caused by road accident in the Americans. He concludes that, if the health advise to travelers according to the country of destination progressed well, those for the risks of accident are inadequately distributed, even if they are available on the websites of the American authorities[42] (or in the Intl.SOS country-guides for their customers).

Regarding the road accidents, a World Bank study[43] shows their importance for their business travelers and their expatriates; it also gives a list of countries particularly at risk[44] (where we find again a

38 BUNN William; "Vaccine and international health programs for employees travelling and living abroad"; 2001: Journal of Travel Medicine, Volume 8 (Issue Suppl 1): s20-s23.
39 JEANNEL Dominique et al.; "Les décès de français lors d'un séjour à l'étranger et leurs causes." ; BEH : 2006 ; N° 23-24 ; p166-168
40 HARGARTEN, SW et al. ;"Overseas fatalities of United States citizen travelers; an analysis of deaths related to international travel."; Ann Emerg Medicine;1991;20:p622-626.
41 TONELLATO DJ; "Injury deaths of US citizens abroad: new data source, old problem."; Journal of Travel Medicine: 2009; 16:p304-310.
42 http://travel.state.gov/content/passports/english/go.html (visited on March 8th, 2014).
43 GOLDONI LAESTADIUS Jasminka et al.; « Can Business Road Travel Be Safe? Experience of an International Organization »; Journal of Travel Medicine; March/April 2011; Volume 18, Issue 2, pages 73–79.
44 Cited opus (GOLDONI:2011), Table 2 page 75.

preponderance of the countries with low to medium incomes as mentioned by Tonellato) and a series of recommendations[45].

2.5.4. The psycho-social impacts of travels on travelers in mission and expatriates

Rogers and Reilly[46] noted that the international business travelers could experience « stress, anxiety, culture shock, and adjustment problems while overseas. »[47]. In another study[48], these authors recorded complaints from the business travelers of their Oil and Gas corporations. 74% of them reported suffering due to time differences, 45 % of the traveler's diarrhea and of intestinal disorders and 12 to 16 % of problems of adaptation to the climate. Some had risk behaviors: 21 % drank more alcohol than usual and 6 to 14 % neglected the precautions recommended for the drinking water, the food and the prevention of malaria. Striker and al.[49] described « jet lag, fatigue, family disruptions, and compromised work effectiveness. » Burkholder and al.[50] compared the health and well-being factors of the business travelers of their company in the pharmaceutical business by comparing them to their non-traveling colleagues. They noted in particular excesses of alcohol consumption, sleeping disorders and a decreased confidence of the travelers in their possibilities of holding the working rhythm which was imposed on them. They end by suggesting screening travelers before the journeys and giving them advises in order to reduce the negative impacts of these travels.

2.5.5. The role of the country of destination

The country of destination is an important risk factor for accidents and diseases. Indeed, the level of income of the country impacts, among other things, on the quality of its road sector and on the medical standards of the country. For the latter, the chances of being taken in charge properly and treated correctly in the event of an accident or of a disease are much less in many countries than in Switzerland.

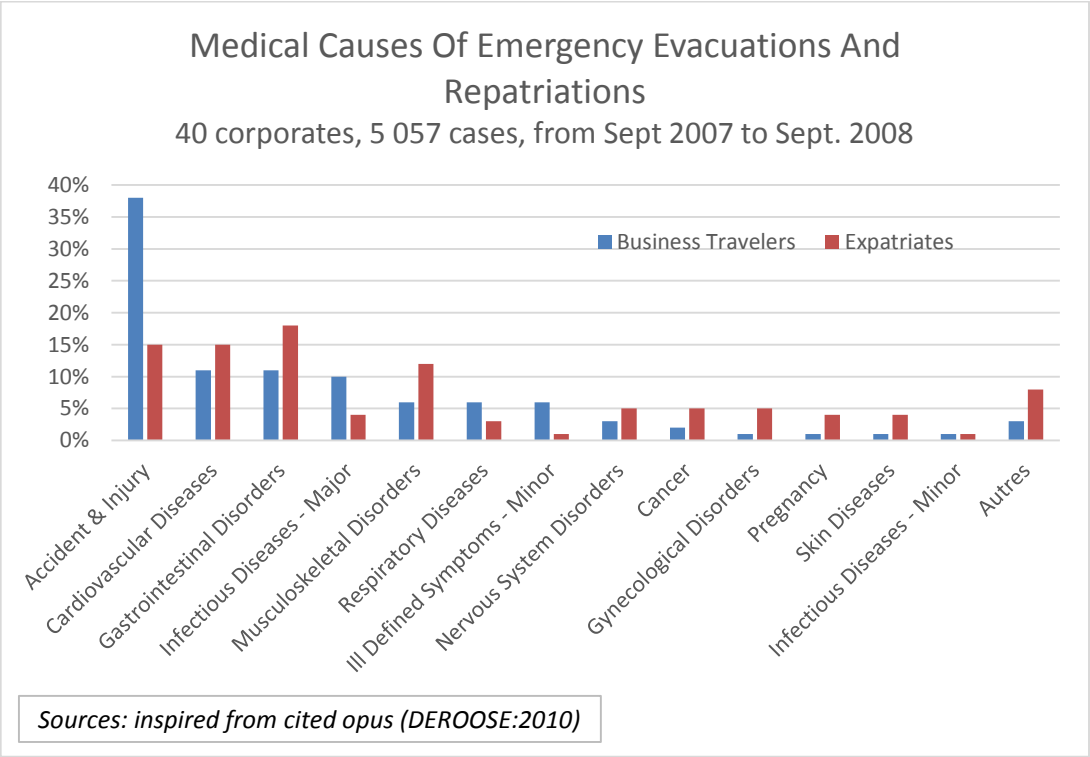
Druckman and al.[51] used two tools of classification of the medical risks by country; they showed that there was a strong correlation between the risk of health in relation with the country of destination, the number of hospitalizations and the number of evacuations or repatriations. The countries were classified in four categories; they noted a "step" between the countries of the categories 2 and 3.

Harvard University[52] publishes their own list of countries at risk on three degrees combining the sanitary and security risks, updated very regularly. Intl.SOS issues their map of health risks (see their *Health Map* in Appendix II), a little more refined than the previous one, presenting five categories of risks of health. Intl.SOS complements it with their sanitary alerts.

45 Cited opus (GOLDONI:2011), Tableau 3 page 77.
46 ROGERS H Lynn & REILLY SM; « Health problems associated with international business travel. A critical review of the literature. »; AAOHN J;2000 Aug ;48(8) :376-84.
47 Cited from the article abstract (ROGERS & REILLY:2000)
48 ROGERS H Lynn & REILLY SM; "A survey of the health experience of international business travelers. Part 1 – Physiological aspects; AAOHN Journal; 2002 Oct; 50(10).449-59.
49 STRIKER James, DIMBERG Lennart and LIESE Bernhard H.; "Stress and business travel: Individual, managerial, and corporate concerns"; Journal of Organizational Excellence; Winter 2000;Volume 20, Issue 1, pages 3–10
50 BURKHOLDER Justin et al.; "Health and Well-Being Factors Associated With International Business Travel"; Journal of Travel Medicine; 2010; Volume 17 (Issue 5): 329–333.
51 DRUCKMAN Myles; "Country factors associated with the risk of hospitalization and aeromedical evacuation among expatriate workers."; JOEM, Volume 54, Number 9, September 2012.
52 http://www.globalsupport.harvard.edu/international_health_safety/travel_ratings.shtml (visited on April 3rd, 2014)

Patrick Deroose[53] made a statistical study on the data of emergency evacuations and repatriations on medical grounds concerning 40 companies clients, 5 057 cases over one year. The following table gives the main causes for the travelers and the expatriates.

Table 6 - Medical causes of emergency evacuations and repatriations.



Sources: inspired from cited opus (DEROOSE:2010)

We can note in the above table that the main cause of the medical evacuations and repatriations are different for each tested group. In particular, the travelers have mainly accidents (38%), followed more or less equally by cardio-vascular diseases (11%), severe gastro-intestinal troubles (11%) and serious infectious diseases (10%), which includes, among others, malaria and dengue fever. On the other side, for the expatriates and their family, the causes are more equally spread, with the gastro-intestinal troubles coming first (18%, that is half less than the accidents for the travelers), closely flowed by the accidents and the cardio-vascular diseases (15%) and the musculoskeletal troubles (12%).

Recently, on February 25th, 2014, Intl.SOS published on their web site internal statistics showing that in 2013 more than 40% of the medical cases for business travelers had occurred in countries with "high" and "extreme" health risk (of level 4 or 5/5 as per the *Health Map* of Intl.SOS). This figure increased by 25% compared to 2012. In this study, among business travelers, males are proportionally more hit than females. We noted that 48% of the patients hospitalized in countries at "high" health risk had to be evacuated; this figure increases to 80% in case of hospitalization in a countries at "extreme" risk. In this study, in 2013 the three first pathologies responsible for evacuations and repatriations were, in order, wounds by accident, respiratory problems and gastro-intestinal troubles. The cardio-vascular diseases arrived in 5th position, (they were in 2nd position in 2006[54]), representing 11% of the total, equal to the parasitic infectious diseases (malaria and dengue fever).

53 DEROOSE, Patrick; *The Creation of Cost Effective Prevention Strategies for Business Travelers and Expatriates: Analysis of Medical Evacuation/Repatriation"; Society of Petroleum Engineers; 2010. First presentation at the AAOHN conference in 2009, available on https://www.onepetro.org/conference-paper/SPE-136641-MS (visited on October 12th, 2014)
54 Cited opus (JEANNEL:2006)

2.5.6. The preventive health assessments

With the exception of both quoted medical assistance corporations, medical check-ups for the business travelers and the expatriates are explicitly recommended only very occasionally. The Institution of Occupational Safety and Health (IOSH)[55] in Great Britain does it but with little prominence, citing them in their recommendations on the same line as the briefings before a departure. They are of more common practice in certain business sectors mixing high occupational hazards and high risks in the country of destination. The oil and gas and mining industries are the most striking examples, having brought them to publish guidelines followed by all regarding their collaborator's fitness for work; the best known in Europe is "Medical Aspects of Fitness for Offshore Work: Guidance for Examining Physicians" by Oil & Gas UK[56].

2.6. Economic impacts

2.6.1. Some basic figures

According to PriceWaterhouseCooper (PWC)[57], an expatriation costs on average to the employer US$ 311,000 (CHF 278,180), within the range of US$ 103,000 to US$ 396,000 US$ (CHF 93,130 to CHF 325,200) per year. The average total investment for a complete mission varies from US$273,000 to (CHF 244 200) for a local to US$ 1 032 000 (CHF 923 100) for an expatriate. Only 0,5% of the total investment is spent on the information and training phases before the departure, that is US$ 1,521 in average, which is rather low.

2.6.2. Cost of a medicalized air transport in assistance

To give an idea of the costs of the medicalized transports, we analyzed some files of evacuation at Intl.SOS and compiled the results in the following table.

Table 7 - Costs of some medicalized transports.

TAKE-OFF CITY	LANDING CITY	BY AIR AMBULANCE	BY COMMERCIAL CARRIER WITH MEDICAL ESCORT
N'Djamena, Chad	Geneva	CHF 77,700 (US$ 60,500)	CHF 39,300 (US$ 35,200)
Cairo, Egypt	Geneva	CHF 41,000 (US$ 36,700)	CHF 30,500 (US$ 22,300)
Jakarta, Indonesia	Singapore	CHF 20,100 (US$ 18,000)	CHF 7,000 (US$ 6,300)
Port Harcourt, Nigeria	Johannesburg, South Africa	CHF 61,100 (US$ 64,600)	CHF 26,200 (US$ 23500)
Philadelphia, USA	Geneva	CHF 131,000 (US$ 117,200)	CHF 39,300 (US$ 35,200)

Sources: Intl.SOS, 2014.

2.6.3. Cost of an early return

The cost of early return includes direct, that is calculable, costs, and indirect, unquantifiable. The direct costs for medical reasons include the possible hospitable costs, cost of the repatriation, medicalized or not, of the collaborator and his family, the recruitment, the transport and the installation of a substitute, etc. The indirect costs include in particular the losses in business or in opportunity of

55 IOSH – Brochure "Safety without borders - Keeping your staff healthy and safe abroad", chapter 6 Personal health p7.
56 Available at http://www.oilandgasuk.co.uk/publications/index.cfm (visited on April 14th, 2014)
57 PRICEWATERHOUSECOOPER; "Measuring the value of international assignments"; Human Resources Services; 2006; p.22. Available at http://www.pwc.fi/fi_FI/fi/palvelut/tiedostot/pwc_measuring_the_value.pdf (visited on April 14th, 2014)

business, the possible damage of image of the company or the organization, the possible losses in trust of the other expatriates, etc. The figures given below are only estimations of direct costs.

An early return, whatever is the reason, can be very expensive. Between 4% for PWC[58] and 5% for Brookfield Global Relocation Services[59] of the expatriations end before their planned term. However, globally, there is a lower staff turnover most of the time than at the parent company.

It is very difficult to estimate the cost of the failure because of the great number of factors involved (salaries and compensation, accommodation with very different costs according to the place of residence, the transport, the medical expenses, the collaborator's replacement costs for his substitute, etc.). In 1996, Rebecca Shannonhouse[60] indicated a cost of US$ 250,000 to 1 million (CHF 223,500 to 893,500) but was referring to unspecified "recent enquiries". In 1997, Mervosh and McClenahen[61] were giving amounts between US$ 250,000 and 500,000 (CHF 223,500 and 447,240), citing the American National Foreign Trade Council (sources not found). In 2012, Briscoe and al.[62] estimated that often it would cost round US$ 1 million without citing their sources either. Sarah Kniel published in her thesis of doctorate of 2009 a table inspired from Doris Lindner's book. We took, translated and ordered this table in a chronological order.

Table 8 - Estimated costs of an aborted expatriation.

AUTHORS	AMOUNTS
Edwards (1978)	Ca. US$ 70,000 per family / US$ 250,00 per senior manager
Misa/Fabricatore (1979)	US$ 55,000 – 85,000 per family for an expatriation in Middle East
Lanier (1979)	US$ 80,000 per family
Medenhall/Oddou (1985)	US$ 55,000 – 80,000 (CHF 49,200 – 71,500)
Mendenhall et al. (1987)	US$ 50,000 – 150,000 (CHF 44,700 – 134,000)
Harvey (1989)	The costs exceed US$ 1,000,000 (CHF 900,000) when an expatriate leaves the company after an expatriation
Caudron (1992)	US$ 250,000 – 1,000,000 (CHF 223,500 – 893,500)
Copeland/Griggs (1992)	US$ 200,000 (CHF 179,000) per expatriate and per family
Swaak (1995)	US$ 200,000 – 1,200,000 (CHF179,000 – 1,072,000)
Holms/Piker (1999)	35 000 GB£ (53 500 CHF)

Sources: inspired from KNIEL Sarah, "Evaluating Intercultural Learning" table Chapter 2.1.4 page 17 of the pdf version.

We can note the extreme variability of the costs of a failed expatriation. Despite the most recent figures, from Holms and Piker, which seem underestimated, this would seem to show an increasing trend but the figures are too variable for us be affirmative. For that purpose, we would have liked to know the conditions of measure of these amounts but Sarah Kniel does not identify the sources quoted by Doris Lindner in her table and we could not find any of them with the authors' names and the dates only.

Globally, by comparing all these amounts with the average cost of expatriation a year according to PriceWaterhouseCooper, we can keep as probably acceptable, even if unrefined, the average amount

58 Cited opus (PWC:2006)

59 Brookfield Global Relocation Services ; « 2014 Global Mobility Trends Survey », available at http://www.brookfieldgrs.com/knowledge/grts_research/ page 61 (visited on June 2nd, 2014)

60 SHANNONHOUSE Rebecca; "Overseas-assignment failures: Language, business skills don't ensure successful stint abroad"; USA Today International Edition, Nov 8th, 1996, page 08.A. Can be bought at http://pqasb.pqarchiver.com/USAToday/search.html

61 MERVOSH, E. M., & McCLENAHEN, J. S. 1997. The care and feeding of expats. Industry Week, 246(22): 68–72.

62 BRISCOE Denis, SCHULER Randal S. and TARIQUE Ibraiz; "International Human Resource Management: Policies and Practices for Multinational Enterprises"; Routledge, Taylor & Davis Group, Global Human Resource Management Series; New York & London; 2012; 4th edition; 527 pages. Page 321.

of direct costs of US$ 500,000 (approximately CHF 450,000) generally held in articles approaching this subject.

2.6.4. Economic costs of a health problem abroad

There are almost no articles on the economic cost of the health problems of the travelers, the business ones in particular. An attempt was made by Mathyas Wang and al.[63] concerning travelers' diarrhea. For this disease, although considered as minor, the author estimates the medical costs in Euros 200 million (CHF 317 million or US$ 294 million)[64] per year and close to Euros 450 million (CHF 714 million or US$ 662 million) per year in loss of productivity (calculated on the basis of a day off for normal diarrhea and two days for chronic or parasitic diarrhea), this for Europe only. These figures do not take into account losses in business opportunities which are difficult, even impossible to calculate.

2.6.5. Return On Prevention (ROP)

The International Social Security Association (ISSA) based in Geneva studied the Return on Prevention (ROP)[65] on a panel of 300 corporations in 15 countries. The found ROP was 2.2; thus, 1 CHF invested in the prevention in the broad sense would hope to produce a return of 2.20 CHF. This study does not concern either the business travelers, or the expatriates but it gives a point of comparison for both the following studies.

Myles Druckman[66] of Intl.SOS introduced a Key Performance Indicator (*KPI*) that he called « *Save* ». It is focused on people with a pathology potentially putting their lives in danger. The cost of a *Save* was estimated by the concerned corporations themselves; it covers all the computable expenses, in particular those of failure of the mission: evacuation / repatriation, hospitalization, selection and sending of the replacement, the loss of income during the vacancy of the post, the salary of the collaborator's substitute, etc.

A construction and engineering corporation classified in the American *Fortune 100,* which made pass medical check-ups to all their employees sent abroad for 20 years, got 17 *Saves* the first year of implementation of this indicator for a total of 952 health checks. Over 4 years, with a cost estimated at US$ 500,000 US (CHF 447,250) per *Save*, the ROP was of 1:7.

In another fast growing engineering company which had never had program of preventive medical check-ups, there were 3 *Saves* during the first year out of 230 filled questionnaires with a ROP of 1:8 for a cost with US$ 500,000 US per *Save*.

A second key performance indicator was introduced for this second corporation, called "critical interventions"; this relates to non-urgent health problems which are taken care of before the departure so that there is no complication during the travel or the expatriation. Their cost was estimated at 8 working days off costing an average of US$ 1,500/day, which gives a total of US$ 12,000. There were 16 cases the first year. Compared with the price of the program of US$ 181,200 for this corporation, the saved total cost was thus estimated at US$ 1,692,000, that is a ROP of 1:9.34.

---

63 WANG Mathyas ; « Economic aspects of Traveler's Diarrhea. »; Journal of Travel Medicine;2008; Volume 15, Issue 2, 110-118.

64 According to the yearly 2008 average exchange rates, EUR 1 = CHF 1.5866 and US$ 1.4715.
See http://www.oanda.com/currency/historical-rates/ (visited on October 12th, 2014).

65 BRAEUNING Dietmar & KOSHTALL Thomas ; « Rendement de la prévention : calcul du ratio coût-bénéfices de l'investissement dans la sécurité et la santé en entreprise. » ; AISS, Genève ; 2011.

66 DRUCKMAN Myles et SPITZNAGEL Carl: « Saving Lives and Saving Costs: The Return on Investment Case for Pre-Travel Screening »; International SOS Briefings: 2011:4p. Available on http://dialoguesondutyofcare.com/2014/05/protecting-the-health-security-well-being-of-employees-crossing-borders/?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+DialoguesOnDutyOfCare+%28Dialogues+on+Duty+of+Care%29 (visited on June 16th, 2014)

It should be noted that, although the concerned population increased by 30 % during the 3 years of the study, the expenses arising from the hospitalizations, repatriations on medical grounds and refunds of medical costs dropped down of 60 %.

The limits of these case studies

They are only two case studies, which does not allow us to draw statistical conclusions. The business sector of the corporation and the conditions of expatriation (the expatriation expenses can change hugely[67] according to the countries and cities concerned) can have a serious impact on the amount of the cost of a failed expatriation. Yet the higher this amount is, the more important the ROP is. On the other hand, only the direct costs were taken into account in these two case studies, which tends to underestimate the ROP.

2.7. Review of the literature on qualitative studies

Regarding qualitative studies, numerous books and articles were published. For this survey, we shall use the method developed in "The market study in practice" of Emmanuel Fragniere and al. (2013)[68]. The analysis of the interviews is based on a simplified search for the lexical fields. As a reminder, “a lexical field is thus a set of words which relate to the same theme, to the same notion. Examples: the terms to shine, brightness, sparkling and sun belong to the lexical field of the light”[69].

On the other hand, the question of the optimal number of interviews to be made was raised so that the survey could be considered as valid. Marshall and al.[70] worked on that issue for Information Systems. They concluded that "the studies concerning only a single case should contain generally 15 to 30 interviews". Beyond that number, there are very few chances that a further “idea” will come up. We shall extrapolate the conclusions of this study in our qualitative survey.

2.8. Conclusion of the literature review

This review of the literature on the various subjects which we are going to approach allows us to have the current point of view on the Duty of Care and problems of health and safety of the travelers in mission and the expatriates.

The Duty of Care is a legal notion without real definition which becomes more and more important in corporations having travelers in mission and/or expatriates. Articles 6 of the Law on Labor and 328 of the Code of Obligations govern it in Switzerland. A certain vagueness on the legislation applying in cases of disease or accident abroad existed for a long time. Today it is clear that it is the employer’s legal address which is systematically used when his collaborators are concerned. So, the international jurisprudence reminds that the responsibility of the corporation towards this population sent abroad covers all the time spent abroad, without any distinction between time of work and time of rest/leisure. This Duty of Care is to be studied under its four sub-sub-duties, which are the duty of information, protection, control of what was decided and set-up and promulgating safety rules.

The twenty five first "best practices" of Lisbeth Claus’s study implemented by the biggest companies are followed in disparate ways: the first one was followed in 86% of the interviewed corporations and

67 See in example Worldwide Cost of Living of the Intelligence Unit of The Economist (paying).
68 FRAGNIERE, Emmanuel et al. ; “L’étude de marché en pratique. Méthodes et application. »; De Boek, Bruxelles, 2013. 149p.
69 Definition according to the *Etudes littéraires* website : http://www.etudes-litteraires.com/figures-de-style/champ-lexical.php (visited on April 14th, 2014).
70 MARSHALL, Bryan et al.: « Does sample size matter in qualitative research? A review of qualitative interviews in is research.”: Journal of Computer Information Systems. Fall 2013, Vol. 54 Issue 1, p11-22. 12p.

the 25th by 20% of them only. The preventive health assessments do not belong in these twenty five best practices.

Nevertheless the pathology and the psychosocial risks linked to travel in mission or to an expatriation was the object of several studies. We know to which sanitary risks they are exposed. We know how to estimate their frequency by country, to classify them according to these risks. Thus, to travel or to stay in a country with low and medium income is an added risk factor. Indeed, the fact of being treated in a medical infrastructure with standards lower than in Switzerland can aggravate a pathology occurring on the spot if it cannot be effectively controlled. The manslaughters and the road accidents are also more frequent there than in Switzerland. Several recent studies show that this last risk should increase in time. We also know that the people with a pre-existing condition double their chances of developing a Travel Related Disease.

All the authors agree on the need for education on the incurred risks and how to prevent them. It is on this Duty of Information that the Duty of Care most evolved this last decade. Nevertheless, a lot remains to be done in that respect, as the risk behaviors of the business travelers and the expatriates show. On the other hand, the preventive medical check-ups for this population are not common in practice. However, we just saw that Burkholder[71] recommends a screening of risk behaviors and that Leki[72] proposes that each one on his own initiative sees his doctor before leaving if he has a doubt about his own health. It is an Anglo-Saxon and Swiss position which leaves the responsibility of their health to the travelers in mission and to the expatriates.

To leave with a pre-existing disease favors the occurrence of Travel Related Diseases. It shows clearly the interest to detect them before a departure, thus to pass a medical check-up.

The average cost of an early failed expatriation is difficult to calculate because the costs of an expatriation are so variable. The held average amount is US$ 500,000, that is CHF 446,700 roughly. A recent and serious study is missing, made preferably by business sector. However, this situation is rather infrequent because it concerns only 4 to 5 % of the expatriates, which is a rather low staff turnover.

Several costs-profits analyses showed positive Returns On Prevention (ROP), in particular after the implementation of systematic medical check-ups for the travelers in mission and the expatriates or, better still, of questionnaires of health preselecting the collaborators by needing them to pass a medical assessment (ROP of 1:9.34). However, as concerning a case study on a single company only, these figures cannot be generalized.

———

We are now going to explain the methodology we used to realize our study.

71 Cited opus (BURKHOLDER:2010)
72 Cited opus (LEKI:2008)

3. METHODOLOGY

Our methodology includes two parts, a semi-directive qualitative inquiry to answer the objectives of the study, completed by a study of the assistance loss ratio of the interviewed corporations and organizations. Indeed, it seemed interesting to us to see if we could confirm what we had anticipated - that medical check-ups before a departure for the concerned population here decreased their employer's medical assistance loss ratio.

So, first we are going to show the various stages of the implementation of our survey. This was based on the choice of the type of inquiry, on the design of a questionnaire, on the preparation of the interviews and on the analysis of the answers.

The loss ratio was then studied on purely the medical or obstetric assistance files of Intl.SOS to determine the number of cases which could have been avoided and their costs.

3.1. Choice of the type and parameters of the inquiry

3.1.1. Type of inquiry

The choice went towards a qualitative inquiry according to three axes corresponding to the three objectives of this study:

- to determine globally the degree of maturity of the Swiss clients of Intl.SOS on the Duty of Care in the medical domain
- in this perspective of Duty of Care, to know if the Swiss clients of Intl. SOS offer medical check-ups to their travelers and expatriates; if yes, what they think of it, and if not, why they do not offer any
- according to the principle of proportionality applied to the Duty of Care, to know how the concept of an on-line questionnaire prior to a classical medical check-up is perceived and how they would envision it.

In order to respect these objectives, the questions follow a progressive plan starting from the Duty of Care, passing by the medical check-ups and finish with the medical questionnaires filled in on-line by the collaborators.

A questionnaire including only the basic questions was prepared for the attention of the interviewees; a second questionnaire including more specific questions was prepared for the attention of the interviewer.

The interviews were semi-directive because the subject and the questions were rather well defined; it allowed us to refocus the interview on relevant question when it turned out to be necessary.

When the future interviewee had accepted the interview, he received the questionnaire shortly before it, for two reasons:

- to not risk surprising him, having answers to all our questions which otherwise could have seemed intrusive, or even moralistic;
- so that he can prepare some figures required for a better knowledge of his corporation or organization profile.

However the more specific questions were not communicated in advance to leave a minimum of spontaneity to the answers.

A pre-test of the interview questions was made with the BDM of Intl.SOS in Geneva.

3.1.2. The interview questionnaire

The final structure of the questionnaire appears as follows:

- we find a chapter by objective;
- the questions are preceded by a small explanatory text allowing the interviewee to situate himself with regard to the theme;
- the questions which will be put to the interviewee are in bold characters; the more specific questions are in italics;
- the fourth chapter asks for some figures to have a profile of the interviewed entity and to define the Concerned Population, which means the sum of the number of travelers on mission and the expatriates, including the family accompanying them;
- the questionnaire ends by Swiss legal references concerning the Duty of Care, useful for the interviewee to assess his observance before the interview; the reference of the medical article quoted in the questionnaire of interview was added so that the interested people can read the said article if they wished to.

Here is the text of the questions including the boost and specification questions.

Table 9 - Interview questionnaire.

INTERVIEWS DUTY OF CARE AND MEDICAL ASSESSMENTS FOR BUSINESS TRAVELERS AND EXPATRIATES (in SWITZERLAND)

The goal of the interview that we intend to perform with you is to have your point of view on the *Duty of Care* and the medical assessments for your business travelers and expatriates in your company (hereunder the word expatriate includes his/her accompanying family).

IMPACTS OF DUTY OF CARE ON YOUR BUSINESS TRAVELERS AND/OR EXPATRIATES

In Switzerland, the Duty of Care is covered by the articles #328 of the Code des Obligations and #6 of the Law on labor. According to Michel Chavanne, a Swiss attorney specialized in Duty of Care, it includes four duties: of information, duty of prevention (to reasonably anticipate the risks and to prevent them), duty of monitoring that what is set-up is applied, duty of intervention (decreeing rules that are deemed necessary for the protection of the business travelers and expatriates)..

Question 1: Today, how do you apply the principle of *Duty of Care* to your travelers in mission and/or expatriates? Please answer according to Michel Chavanne's above four duties for health issues only.

Duty of information

- *How are they informed on the medical risks they will be exposed to, the recommended vaccinations, local dos and don'ts for the daily life, etc.?*
- *Where do you pick up that medical information?*
- *Do you use the Intl.SOS Country-Guides? Do you give a direct access to the information available on their website to your employees or do you request them to do it via an authorized person?*
- *Do you have an intranet with a page of information including medical issues?*
- *Do you have an emergency number within the company/organization? A cell answering that number H24? Or do you give Intl.SOS emergency number?*
- *Do you organize informative briefings before departure? Who has access to them? Is it compulsory to attend it before being authorized to travel abroad?*

Duty of preventions

- *What do you do for their protection? Give some examples.*
- *Do you provide them with an international medical insurance? Who is covered exactly: your travelers? Your expatriates? Their families?*
- *You have a medical assistance contract with Intl.SOS. Do you organize some of the evacuations or repatriations yourselves?*

- *Do you have an in-house medical services? On sites?*
- *Do you organize health assessments? Internally or are they sub-contracted?*

Duty of monitoring

- *How do you control that your business travelers and/or expatriates inform themselves on the medical risks in their country of destination? If they are vaccinated? That they are medically fit for their destination / place of assignment?*

Duty of intervention

- *Do you promulgate rules according to the local circumstances: forbidding travels to dangerous countries, etc.? Are there procedures for exceptions?*
- *Who is in charge to do it?*

HEALTH-CHECKS FOR BUSINESS TRAVELERS AND/OR EXPATRIATES

Question 2**: Does a preventive health assessment have its place in your conception of Duty of Care for your business travelers and/or expatriates?**

Question 3: Did you/Have you organized health-checks for your travelers and/or expatriates?

If YES,

- What assessments do you make out of them, as a manager?
  On the administrative side? On the cost side? What pushed you to make them do?
- Who is enrolled exactly? *Everyone? Only the expatriates? Their dependents? The travelers in mission? At your Head-Quarters only or also at the local offices?*
- Are the health assessments compulsory or on a voluntary basis? *Whom for?*
- What are the positive and negative remarks formulated by your employees enrolled in one of these programs?

If NO, why didn't you enroll your employees in such a kind of program?

- *Because they are too demanding (administration of the program, too many absences from work, etc.)? Too much expensive compared to the number of medical issues that occurred abroad? Etc.*
- *For cultural reasons: your collaborators must be responsible for themselves, you must have a trustworthy relationship with them, etc.*
- *Any further reason?*
- *Did your business travelers and/or expatriates requested medical checks to you?*

In 2012, a study by the Amsterdam Medical Center, a hospital specialized in travel medicine, showed that people with a pre-existing medical condition have twice more chances to have an infectious travel related disease than healthy people.

Question 4: **How many travel related health problems had you last year in your business travelers and/or expatriate population?**

- *See the Activity Report of Intl.SOS. According to you, is the number of cases trustable or is it under-or overestimated?*

Question 5: **In your company, who is/would be in charge (function, department) the setting up of health checks for business travelers and/or expatriates?**
Who would be in charge of them if you were organizing them yourselves?

PRINCIPLE OF PROPORTIONALITY APPLIED TO HEALTH ASSESSMENTS

However, it is commonly agreed that it is not systematically necessary to take the maximum precautions but that these ones can be proportional to the risks to which your employees are exposed (this is called the "principle of proportionality").

The classical health checks are a bit constraining and rather expensive. However, 90% of them roughly are normal. Today, Intl.SOS proposes a new concept, complementary and prerequisite to their health checks; it is a health e-questionnaire filled on line by the employee, crossed with the

risk evaluation of the destination and reviewed by one of their health professionals. Its goal is to detect if the collaborator in question needs or not to have a classical health check before going abroad.

Question 6: **What do you think of this new concept?**

- *According to you, does it fit to the Duty of Care well, the principle of proportionality well?*
- *Which advantages / benefits do you foresee?*
- *Do you have any particular topic you would like to be treated in this health questionnaire?*

Question 7: **In case you would use such an e-questionnaire, which kinds of statistics would you be interested in?**

- *Health (anonymous)*
- *Administration du program*
- *Satisfaction of the enrolled people*
- *Longitudinal vision, etc.*

Question 8: **Should you decide to use such a medical e-questionnaire, which complementary functionalities would you like to have at your disposal in order to satisfy the Duty of Care requisites?**

- *Are the medical and security country-guides of Intl.SOS satisfying you?*
- *Would you appreciate to have a visibility upon who in your company consults the Country-Guides of Intl.SOS?*
- *Can you know immediately who is where and who is going to go there?*

Question 9: **Do you have any further comment or remark to add?**

YOUR COMPANY PROFILE
(the figures that you will provide will be helpful for designing a risk matrix for Duty of Care)
Business sector:
Total number of employees:
Number of business travelers:
Number of expatriates including % in family

SWISS REFERENCES FOR THE DUTY OF CARE
Code of Obligations Art 328, Paragraph 2: "He [the employer] takes, to protect the life, the health and the personal integrity of the worker, the measures commanded by experience, applicable as is of the technique, and adapted to the conditions of the operations or of the household, as far as the work relationships and the nature of the work allow to require it from him fairly."
Art. 6 LTr (Loi sur le travail – Law on Labor) – Obligations of the employers and the workers.
Paragraph 1: "To protect the health of the workers, the employer has to take all measures which experience demonstrates to be necessary, which the state of the technique allows to apply and which are adapted to the conditions of operation of the corporation. Moreover, he has to take all the measures necessary to protect the personal integrity of the workers. »
Paragraph 3: "The employer requires the workers to collaborate in the protective measures for health. They have to assist the employer with the application of the rules on the protection of the health."
Standards: OHSAS 18001:2007 et ILO-OSH 2001

Medical article: WIETEN, Rosanne and al.; "Health Risks of Travelers With Medical Conditions—A Retrospective Analysis"; Journal of Travel Medicine, 2012, Volume 19, Issue 2, p 104-110.

3.2. Target – Sample

The survey concerns the exclusive target of Intl.SOS, namely the travelers on mission and the expatriates.

As we could expect different answers according to their business sector and their size, it would have been interesting to segment the interviewees according to these two criteria. It was not possible because the clientele of Intl.SOS includes mostly big corporations. To have the opinion of smaller corporations, we tried to interview, not one or some SME (there are practically none who are clients of Intl.SOS) but a federation representing Swiss SMEs in a certain business sector; we received a polite refusal from them without knowing the reason. Thus the segmentation by size was not possible.

The business sector was well taken into account, in particular to explain the peculiarities of the answers and/or the loss ratios. We held the following ones: oil and gas, financial and banking, food-processing, pharmaceutical, industrial, construction and luxury business. However, we noticed that we had too few representatives of every business sector in our sample to be able to make a real segmentation on this basis.

On the other hand, we used a peculiarity of the clientele of Intl.SOS in Switzerland: It includes many non-profit organizations such as UN agencies and big Non-Governmental Organizations (NGO). It seemed interesting to us to integrate them into our survey. Thus we arrived at a segmentation in two groups with, on one side, classic companies and, on the other one, international organizations.

The corporations and organizations were selected by the Business Development Managers (BDM) of Intl.SOS. They looked above all for clients considered as receptive because of concern to the Duty of Care, whatever was their degree of maturity in that matter. Indeed, these large corporations and organizations are very protective of their image and are afraid of anything that could tarnish it. So, the interviewees unanimously asked that the interviews are made totally anonymous and only authorized that the name of their corporation or organization is quoted in the list of the interviewed companies and organizations.

The initially planned number of interviews was fifteen to respect the threshold of validity of a qualitative inquiry as per Marshall[73]. We could stick to it.

We began with a pilot with the first two companies interviewed to adapt the questionnaire as necessary and to verify the understanding of the legitimacy of such a survey with the interviewees. We took that opportunity to make a small synthesis to refine our method of analysis.

The interviewed people are all influential people within their corporation or organization. They were either the medical director, or the top security official, or a high-level person in the human resources department. Each interview was transcribed and sent to the interviewee for possible correction and final acceptance. We could so make sure that the interviewees' ideas had well been respected and validate the interviews. It also allowed us to reassure the interviewees and to make them aware of their responsibilities.

We preferred handwritten notes to an electronic recording of the conversation. The latter would certainly have been more precise for the transcription. We think however that it would have created reactions of mistrust as the anonymity is so important for the interviewed people. The spontaneity of the exchanges and the quality of the interview would have suffered from it. Doing so, we wanted to favor the mutual relationship of trust, which has proven successful to the test.

73 Cited opus (MARSHALL:2013).

3.3. Pre-inquiry analysis

We had access to the files of the clients to interview in order to have their profile before our visit, including:

- the contracts signed with Intl.SOS, both basic (medical and security assistance) and complementary (in particular for occupational medical check-ups for their travelers on mission and their expatriates),
- the number of employees covered by these contracts, as declared by the client,
- the global loss ratio over the last three years, from 2011 to 2013 included.

A synthesis was made with the BDM responsible for the client whom we were going to interview before every visit to verify our good knowledge of its profile and the atmosphere of their relationship with Intl.SOS.

3.4. List of the interviewed corporations and organizations

In total, we interviewed nine corporations, including the first six ones in the Swiss Market Index, and six non-profit organizations. This is the list, ordered by activity sector.

- **Luxury business:** Richemont
- **Oil & Gas :** Global Petroproject Services (Saipem Group)
- **Financial and banking activities:** UBS AG and another one who wanted to remain anonymous
- **Nutrition, Health and well-being, Health of the skin, Water, Food for animals, Cereals:** Nestlé
- **Pharmaceutical industry:** Novartis International AG and Hoffman et Roche Ltd
- **Industry:** ABB
- **Building and public works:** Mainby (Groupe Bouygues)
- **UN agencies:** The United Nations Office at Geneva (UNOG), The UN Refugee Agency (UNHCR), the World Health Organization (WHO)
- **International NGOs:** International Organization for Migration (IOM), The Global Fund to fight AIDS, tuberculosis and malaria and GAVI Alliance.

3.5. Method of analysis of the results

To protect the anonymity of the interviewed corporations and organizations, we listed the answers to every question in a random order, thus different from one question to another, not allowing us to recompose all the answers for the same interview. For the same reason, we shall not produce the copy of the complete interviews in the appendix. Also, we changed the names (of the departments, products, etc.) and the titles (of functions, posts, etc.) when we found them too personalized which could be linked easily to a corporation or an organization in particular.

3.5.1. Analysis of the interviews

The analysis will use a simplified form of the principle of the lexical fields, according to the method described by Emmanuel Fragniere[74]. We shall use an Excel table using a sheet per question. All the answers to the same question will be listed in a column on the same Excel sheet. We extracted the words or the groups of keywords for every answer which could be considered as a practice (for the Question 1) or an idea (for the other questions). Each of them was then the object of a column. We

74 Cited opus (FRAGNIERE:2013) pages 33 to 36.

attributed the figure 1 every time an answer contained the practice or the considered idea. It allows a double reading of the final table for every question, which will be described in the following chapter.

We briefly considered using in parallel the freeware of research for lexical fields Iramuteq[75]. However the handwritten notes to take the answers of the interviewees and the type of inquiry we used were not suitable for this exercise. Indeed, in taking handwritten notes it is difficult to show all the words used by the person. Furthermore, taking many notes breaks the visual relationship with the interviewed person, « cuts » the dialogue into little pieces, with the final risk of breaking the conversation. An alternative would have been to record the conversations and to re-transcribe the recordings. This option had not been held from the beginning, in particular not to frighten the interviewed people, all executives with high responsibilities. In fact, this inquiry did not ask for the interviewees' feelings but to list actions and to express an opinion, not to say an agreement, on a proposed service and to describe how they would wish to improve it. Not being on a perceptive but descriptive questionnaire, the real research for lexical fields was not necessary.

Beyond the answer to our three objectives, we shall produce a simplified degree of maturity in medical Duty of Care by the interviewed corporation or organization using a graphic representation (radar) and a beginning of global panorama of the risk linked to the medical Duty of Care to which the interviewed corporations and organizations expose themselves.

3.5.2 Analysis of the interviewed corporations and organizations assistance loss ratios

As a complement to the qualitative inquiry, it seemed interesting to us to verify the financial impact of a program of medical check-ups already set up for the travelers and the expatriates of the interviewed corporations and organizations. For that, we wanted to count the number of "Avoidable Cases" and their costs.

In this study, an **"Avoidable Case"** is a medical assistance case which arose either during or following a travel in mission or an expatriation and which would have had big risks to be avoided

- if it had been diagnosed by a medical check-up before the departure
- or if advice or information had been given to the collaborator before his departure with the aim of preventing that pathology (for example, prevention of the malaria, immunization, hygiene of the drinking water, etc.). On the other hand, we had no means to know if that person had not followed his prophylaxis because he had not been informed about the problem or because he had made the decision himself to neglect the advice received. We considered that there had been then a lack of persuasion, being conscious of how arbitrary this choice was, and we counted these cases as if the advice had not been given.

We used the interviewees' loss ratio in medical assistance with Intl.SOS; then we compared this between them against that of a corporation which did not set up such a program.

We began by counting the « **Concerned Population** » of each interviewed corporation or organization, which corresponds to the sum of the travelers and expatriates, including the family of the latter. When the exact number of the members of the families in expatriation was not known, we counted an average of 2.5 people per family. We crossed the figures received from the interviewees with those that they had given to Intl.SOS and finally kept the bigger one as the Concerned Population.

We studied the loss ratios over the last 3 years, in 2011, 2012 and 2013, to try to erase the random variations from one year to the next.

For this study we kept the "**Assistance Medical Cases**" only, that is those generating an invoice. They cover expenses for external medical care and/or hospitalization abroad and of medical evacuation

75 Iramuteq : [on-line] http://www.iramuteq.org/ (visited on January 15th, 2013)

and/or repatriation. For that, we excluded all the accidental cases, the requests of consultation for non-pathological or for preventive medical assessment (for example for an immunization) and the normal obstetric cases.

To select the Avoidable Cases, we looked in particular

- if there was a known past medical history for the pathology motivating the request of assistance;
- if the pathology would have had good chances to have been detected in the year prior to its discovery with the tests generally done in a basic medical check-up (for example, the inflammation tests for a cancer);
- if the case could have been avoided if the patient had followed the recommendations of prevention: immunization, antimalarial prevention, etc.;
- if it was reasonable to have sent the patient with a known pathology in the country of destination where an acute complication of its problem started.

In order to avoid as much as possible the bias of subjectivity due to the analysis of the cases by a single doctor, the selection of the Avoidable Cases was confirmed by a regional doctor of Intl.SOS with whom all the cases were individually revised until a consensus was reached.

The results for every corporation or organization were compiled in an Excel table. They include

- the number of assistance cases over 3 years,
- the global cost invoiced
- the number of Avoidable Cases and its percentage compared to the total number of assistance cases,
- and their cost.

Then we checked if health assessments had been set up in the corporation or the organization in question.

———

We are now going to analyze the answers to the interviews.

4. RESULTS, ANALYSIS AND DEVELOPMENT

We shall present successively the analysis of the interviews, then that of the assistance loss ratio of the interviewed corporations and international organizations.

4.1. Results and analysis of the interviews

After some elements of presentation of the table of analysis. We shall review the questions of the interview one by one, by showing first the complete text of the obtained answers, then their analyses in the form of an Excel table.

4.1.1. Preface

➢ Reminders

Although the Duty of Care concerns several topics, in particular security, our study concerns voluntarily only its **medical side.**

As discussed in the chapter on methodology, we analyzed the answers from the interviews by transferring them to an Excel spreadsheet with a table by question. It allowed the answers to a question from each of the interviewees to be on the same sheet. We shall present the answers (our results thus) question after question. Unfortunately it was not possible to copy the whole of each sheet in this document, with two exceptions. Thus we shall present two tables per sheet, one after the other, for each of the questions: the first one shows the complete answers of the interviewees to the question and the second the analyses of these answers.

To be able to make the link between the table of the answers and that of the corresponding analysis, we will use the same reference of corporation (#1, …, #9) or of organization (#10, …, #15) for the said question.

We remind the reader that, in order to make the interviews anonymous as much as possible, the reference numbers have no correspondence from one question to another; the order of appearance of the answers is totally random. It is thus totally impossible to reconstitute a complete interview by the reference numbers.

➢ Reading of the tables of analysis

The tables of analysis have all the same structure, those to the Question 1 showing the practices in Duty of Care and those to the following questions the answers to the questions asked. We find, from left to right:

- Only for the Question 1, a first column named NP (for Number of Practices). We indicate by a figure 1 any practice quoted in the sub-duty in question. The figure at the bottom of the column is the sum of this one, thus the total number of practices mentioned for this sub-Duty of Care by all the interviewees.
- For all the tables of analysis, the first two left columns list the practices in Duty of Care or the answers proposed by the interviewees; These are grouped, as far as possible, by family for an easier reading.
- Follow two vertical zones, one for corporations (referenced from #1 to #9) and the other one for the international organizations (referenced from #10 to #15). A figure 1 appears in a column if the interviewee quoted the practice or the answer indicated on the left on the same line. On the other hand, the fact that there is no figure 1 in a cell of the table means nothing else than the interviewee did not quote it (our inquiry is qualitative and not quantitative).
- Every area above presents a column of Total (“TTL”) and one of Percentage (“%”).

The tables of Question 1 have a double reading:

- horizontally, a total by practice or answer appears for the corporations, for the international organizations and finally globally for both entities (column "GRD TTL" for Grand Total). Every total is accompanied with the percentage corresponding to the 9 companies, to the 6 organizations and to the 15 interviewed entities.
- vertically, a total by corporation or organization of the number of practices which it quoted for this question.

4.1.2. Results and analyses for Question 1: how do you apply the principle of Duty of Care in the medical domain to your travelers on mission and your expatriates?

➢ Duty of Information

Here are the answers to Question 1 on the Duty of Information.

Table 10 - Answers to Question 1, Duty of Information.

Question 1 – DUTY OF INFORMATION	
#1	The collaborators have access to the information on the Intl.SOS website essentially. Intl.SOS sends brochures but we do not know who reads them. Today the most interesting is probably the Travel Tracker of Intl.SOS but it sends too many mails and not everybody reads them. Everyone in the Corporation has a free access to the Intl.SOS website.
#2	Information is provided via the Corporation Travel Risk Portal both for travel risk and medical information. Moreover, the medical information regarding the country of destination is printed on their e-tickets, including the emergency phone number of Intl.SOS and the relevant corporation website page addresses. The information itself comes from Intl.SOS and from fact-sheets published on the corporation website. Moreover, on the Corporation HR pages, information about medical check-ups, travel safety, insurance for business travelers and emergency contact numbers are available. The Corporation has its own specialists in HR issues and travel risks experts who can be accessed by collaborators at working hours. In the Corporation based in Switzerland, there is no pre-travel briefing organized as there is no group leaving whose numbers would justify to organize one. However, extensive documentation is available about what a family can expect upon arrival, telephone calls can be organized upon request. The Intl.SOS Country Guides are used and can be accessed freely by all the corporation collaborators.
#3	The politics of the Corporation is to act most upstream possible of the travel. There is a travel agency dedicated to the travelers of the Corporation and the percentage of the travelers using it passed in 2 years from 65 % to 90 %. By taking a ticket in this agency, the user receives a message asking him to contact the Medical Department of the Corporation. It works well for a journey with a single destination but less well for journeys with a stopover or if the first stay is not in a country at risk. For a complex information, the expertise in tropical and travel medicine is at the Medical Department of the Head office of the Corporation. For the medical alerts, the sources of information source are Tropimed, Santé-Voyages, WHO, CDC, GeoSentinel (an international institute of health monitoring issued from the ISTM and the CDC). The collaborators of the Corporation have a direct free access to the Country Guides of Intl.SOS and of CDC. The immunizations are recommended, not compulsory, and the travelers and the expatriates are in charge of their injection.
#4	The information to be given depends on the destination. Yet this one is most of the time the capital of a country with limited risk, even often no more important than in Switzerland. The in-house travel agency systematically prints a message recommending to consult the medical department. The consultation is made on a voluntary basis. There is no medical briefing but

	the Security Department organizes its own ones for the expatriates and their family via Control Risk, the partner of Intl.SOS. Otherwise, the collaborators of the Corporation have a direct access to the Country Guides on the Intl.SOS website; moreover, the Corporation intranet gives the emergency numbers to call for every Corporation agency worldwide. Any of them, whatever it is a sales of production one, has a list of emergency numbers to call H24 in case of serious problem. A list of 20 Corporation Doctors is permanently available at the Head Office in Switzerland who can be called at any time without a real organized roster: the little number of calls does not justify any and, up today, a contact with one of these doctors has always been possible.
#5	To be noted: the immense majority of the people employed by the Corporation are expatriates, meaning spending at least 90 days per year abroad. There are very few business travelers. Duty of information: The Corporation provides medical information coupled to general and security information to their people essentially via flyers (one by country of destination). They are made internally by their medical services at head-quarters and on sites for the medical part. They provide general and preventive (malaria, etc.) medical information, the list of vaccinations to be done, etc. It includes the medical emergency numbers on site. No real briefings are done. They do not give access to the Intl.SOS country-guides as they provide their own flyers. A business traveler from the headquarters has also access to the information flyers and to the doctors on site for specific advice if required.
#6	First, it is reminded that the business travelers and the expatriates of the Corporation go to major cities or Corporation sites where rather good infrastructure including health care are available and stay in high standard hotels. They do not go to the field as other ones do, such as Oil and gas companies. Duty of information: It differs for the two kinds of population. For a business trip, medical (and security) information is provided on vaccinations, medical issues, etc. via the Corporation intranet. The link to the intranet is on each ticket issued. People are also guided to the Intl.SOS Country Guides for further specific information. For vaccines and medication necessary, people should visit the local Occupational Medical Services. On top of the information above, the expatriates receive a more comprehensive information on the country of destination as part of their “expatriate” package. Questions including health related ones are discussed with the prospective ex-pat including their spouses.
#7	For the new expatriates, the information is essentially provided during a multi-country briefing which lasts a full day; the general questions concerning social benefits, risks and security are introduced. The expatriates passing from an assignment to another are exempted of briefing. The [site-] specific information is given to everyone upon arrival on the spot. The business travelers can ask any question to their branch Security person in charge au and to the Medical Department at the Head Quarters. Everyone has access to the Intl.SOS Country Guides via the intranet of the Corporation.
#8	The information on the medical risk is provided at several levels. The expatriates receive a Country Guide published by ICA, which is a global presentation of the country and of the medical and security risks, the list of the recommended immunizations, etc. The travelers and expatriates do not have access to the Country Guides of Intl.SOS directly but via the Intl.SOS portal; they will have access to them via the intranet of the Corporation soon. Today, this intranet contains a page of general information, of medical and security alerts issued from the French Ministry of Foreign Affairs and from the Swiss Federal Department of Foreign Affairs. Each collaborator receives upon his departure an Emergency Card with the emergency numbers to call arriving directly to the Crisis Cell of the Corporation that works H24. These numbers also available on the intranet of the Corporation. Any expatriate must participate to a briefing organized by the RH Department, during which the collaborator receives information on all the topics concerning his expatriation. Besides, every expatriate is invited to a briefing

	with the Security Department of the Corporation during which he receives information linked to the country of destination, and in particular to the possible medical risks he might face. The travelers participates to this last briefing on a voluntary basis.
#9	All departing collaborators have access to information via the Corporation Intranet special page. It gives them access to the Intl.SOS Country-Guides and provides the numbers of the ISOS assistance centers as well as the number of the Corporation emergency Hot Line. They use the Intl.SOS Travel Tracker so that they receive the relevant Country-guides when booking a ticket. For high and extreme risk destination countries, a special briefing is proposed handed by the Security department and where medical issues are also presented; it is not compulsory nor for future expatriates, nor for business travelers to attend it but strongly recommended.
#10	The medical information before a departure for a reassignment is done during a compulsory medical briefing. The same one will be done soon for the travelers during a medical clearance. The medical information comes from WHO and Tropimed essentially. There is no Country-Guide given, except for certain emergency missions. A page of the intranet is reserved to the people upon a departure. The emergency numbers are provided, including to the Security Number in Geneva, where they have access H24 to one of the Doctors of the Organization and to Intl.SOS.
#11	It is performed during the health assessments (information about endemic diseases, immunizations to be done, the compulsory and recommended ones, how to avoid local diseases and prophylaxis, etc…) and via the Intl.SOS Country Guides. Access to them is given to all collaborators via the Intl.SOS website and the recent SOS App. The Security department organizes compulsory briefings on security that provides a security clearance. The briefings take place before departure and upon arrival.
#12	The medical information to travelers and expatriates is provided in several ways. 1) First by the Medical Department during the compulsory periodic check-ups or on a voluntary basis before a journey. 2) Then via their intranet where all the collaborators have access to the medical alerts and to the in-house Country -Guides; it also shows the services that can be provided by the Medical Department. 3) During the recruitment compulsory briefings. 4) At last, during briefings arranged for departures to destinations considered as difficult; then a psychologist and a personnel adviser (who basically is a social worker) joins the medical personnel for the psycho-social issues. The H24 emergency numbers are also given to every people before a departure.
#13	The security of people has two aspects, physical and medical. On the medical side, the Organization relies on a sub-contractor, who receives every week the list of the people planned for on departure. This partner, who knows the travelers' profile via the compulsory periodic health-checks performed very one or two years, crosses that profile with the risk in the country of destination, divided in 5 degrees as per the Intl.SOS Health Map. All those going to a country with High or Extreme risk are called in by the health service provider. They fill a one page questionnaire and receive prophylactic drugs as needed. It is of particular importance if there was a change since the last check-up (e.g.: for the pregnant women). At this occasion they receive a note of information. Some people still do not answer to that call-in but their number decreases year after year since the set-up of that procedure in 2008; today only 15 to 20% escape it. All the collaborators have access tithe Country Guides of Intl.SOS via the intranet of the Organization.
#14	The information comes mainly from the Intl.SOS Country Guides but also from WHO and eventually other sources. There are several ways put in place to inform the travelers before a departure. 1) A copy of the relevant Travel Guides from Intl.SOS is sent to the traveler by the Travel Tracker upon booking a ticket. 2) There is an intranet with a special page for the travelers. 3) Briefings are held upon specific topics when needed (e.g., Ebola fever) for all the

	travelers together. 4) The Organization teaches their travelers how to use the provided antimalarial chemoprophylaxis via an Intl.SOS e-learning malaria training program.
#15	1) The medical information is essentially provided to the collaborator at the opportunity of his request for a medical clearance for a departure abroad, an internal procedure of the Organization (a complete medical questionnaire is to be filled), compulsory before any journey in principle. In return of the clearance request, the candidate receives an e-mail of information about the country of destination. These internal Country Guides are issued by the Medical Department; They are based on the information coming from WHO, CDC and the Tropical Institute of Zurich. The provided information is about general recommendations, the immunizations to be done and the prevention of endemic diseases such as malaria, as well as the « recent outbreaks»; it includes also the details of a hospital of reference locally, if any. The Country Guides of Intl.SOS are not used. 2) The emergency numbers are available on a special page of the intranet, with general information on the procedures to follow in case of an emergency 3) The collaborator receives an Intl.SOS card with the medical emergency number to call and an insurance card with its own emergency numbers. 4) There is no individual briefing organized (except sometimes at the Head Quarters of the Organization), nor any debriefing. The information requests are essentially made by mail.

The analysis of the answers is summarized in the following table:

Table 11 - Analysis of the answers to the Question 1, Duty of Information.

NP	ANALYSIS of the Question 1 - Duty of Information LIST OF PRATICES		CORPORATES #1	#2	#3	#4	#5	#6	#7	#8	#9	TTL	%	INT'NAL ORGANIZATIONS #10	#11	#12	#13	#14	#15	TTL	%	GRAND TOTAL TTL	Percent.	
1	By the Medical Department	In-house			1		1			1		3	33%	1	1		1		1	4	67%	7	47%	
		Sub-contracted										0	0%			1				1	17%	1	7%	93%
	By the Security, the Operations or the RH Dept.		1	1		1				1	1	5	56%					1		1	17%	6	40%	
1	By Country-Guides	Made in-house					1	1				2	22%		1				1	2	33%	4	27%	
		from Direct access	1		1	1						3	33%				1	1		2	33%	5	33%	93%
		Intl.SOS Via the intranet		1				1	1	1	1	5	56%			1				1	17%	6	40%	
		of other origin								1		1	11%							0	0%	1	7%	
1	By the intranet	Info, procedures, emergency numbers, etc.		1	1	1	1	1	1	1	1	8	89%	1	1	1		1	1	5	83%	13	87%	87%
1	By briefings								1	1	1	3	33%	1	1		1	1		4	67%	7	47%	47%
1	By e-learning	Antimalarial programs										0	0%					1		1	17%	1	7%	7%
1	Access to specialists	Psychologists and others		1								1	11%		1					1	17%	2	13%	13%
1	By the Travel agency	Advises on the e-ticket		1	1	1		1				4	44%							0	0%	4	27%	60%
		Country-Guide with the e-	1	1							1	3	33%			1		1		2	33%	5	33%	
7	Have a medical department	TOTAL	3	6	4	4	3	4	4	5	5			3	5	4	3	6	3					

NP = Number of Pratices TTL = Total % = Percentage

The cell filled with small black spots on pale green at the bottom show corporations and organizations having an internal medical department. This codification will be used in some of the following tables.

We count 6 practices of the Duty of Information according to the interviewees.

In the great majority of the cases, all except one in our survey, the information is given face-to-face, In particular in the employer's medical department, whether internal or subcontracted, otherwise by its security, operations or HR departments. It is interesting to note which employers have an in-house medical department (noted by cells with small black spots on pale green at the bottom on the previous table).

The Country Guides are used by all the interviewees. Their sources are variable. Those of Intl.SOS are the first ones in the corporations, often accessible via their intranet. The international organizations preferably use their own ones or the WHO ones. However these last ones provide less general useful information than those of Intl. SOS.

Most of the employers propose a special internet page or a portal for their travelers and their expatriates. The medical is next to the other topics.

The briefings are rare, rather reserved for the preparations of groups for the expatriation.

A corporation and an international organization propose the access to specialists such as a psychologist and\or a social worker. It can help levying anxieties.

The travel agencies have a role which is more and more important in the information given to travelers and expatriates. Indeed, the data processing allows them to send a mail with a personalized message according to the country of destination; it can be a Country Guide, like with the Travel Tracker of Intl.SOS.

➢ Duty of Prevention

The answers to Question 1, Duty of Prevention, are reported in the following table.

Table 12 – Answers to Question 1, Duty of Prevention.

Question 1 – DUTY OF PREVENTION	
#1	The Corporation has an insurance and assistance contract with Intl. SOS for their travelers and expatriates. The centralization of these contracts was made rather recently. The progress of the communication allows the branches of the Corporation to work together. The Security department handles several programs, such as the shop security, the transport of the goods, etc., but also the security of the travelers locally Thus, the evaluation of the risks is made locally by the local Security department; it is rather simplified in the way that the moves of the travelers in mission and of the expatriates is to big cities essentially.
#2	The Corporation provides a specific medical insurance, travel medical and security assistance, kidnapping and ransoming contracts for business travelers and expatriates, plus a Travel Tracker. A Hot Line is in place for emergencies concerning travel risks. Check-ups are offered for people going to high risk countries. The country risk ranking is based on the information provided by the Swiss Border Medical Services; it is partitioning the countries in two classes only: normal and high risk. The Intl.SOS Health Map is not used centrally. The security risk information comes from different sources.
#3	The travelers and the expatriates are covered by a specific medical insurance contract, an assistance contract and a security one including kidnapping and ransom. The rule decided by the Corporation is: « You are the final responsible for your journey. » This is well accepted by the collaborators. The medical check-ups and the immunizations are not compulsory for the travelers; they are compulsory for the expatriates only upon departure and return, with intermediary check-ups proposed with a periodicity depending on the health risk in their country of stay.
#4	A specific insurance contract is set-up for all the expatriates. There is not only one rule for the business travelers. Some agencies provide them with an insurance, others such as the Head Quarters in Switzerland do not: the traveler is reimbursed/ paid off by his personal health care insurance and the Corporation reimburses what was not taken in charge by his insurance. A medical assistance contract with Intl.SOS is taken for everyone. To be noted that every person going to a high risk country is provided with a travel pharmacy kit if he consults the medical department for his journey. The preventive medical system is entirely on a voluntary basis, whether it be for expatriates or business travelers. (See Duty of Control)
#5	All the employees are medically insured worldwide. Medical assistance is provided by a medical insurance and Intl.SOS. NB1 – A part of the evacuations is done with the internal means. NB2 - They have a specific number for emergency calls with a roster of doctors for answering them
#6	Anyone going abroad on the Corporation request is covered by a worldwide medical insurance provided by the Corporation. A medical assistance contract is provided via Intl.SOS. (See Duty of information)
#7	A medical insurance covers 100% of the expatriates', including the families accompanying them, and travelers' medical expenses. They are all covered by an assistance contract with Intl.SOS. The expatriates have to pass a compulsory check-up before their departure, during

	which their immunizations are updated according to their destination. This check-up is done at the Head Quarters medical department for the permanent staffs and via the Health Check Programme of Intl.SOS for the non-staffs.
#8	The expatriates and their families are covered by an international private insurance. The travelers are in charge to take a medical insurance for the diseases covering them abroad; the Corporation proposes them an advantageous collective plan to which they can subscribe on a voluntary basis. All the collaborators are covered by a medical assistance contract with Intl.SOS. There is no medical department, nor in-.house, nor sub-contracted. No systematical medical check-up is nor compulsory, nor organized by the Corporation, as this remains the choice and the responsibility of the collaborator; they are kindly requested to visit a doctor before a departure abroad, in particular during the security briefings. The only compulsory health assessment is the recruitment one, for insurance purposes. The immunizations are recommended by the Corporation but they are done on a voluntary basis. (See Duty of Information: "medical and security alerts issued from the French Ministry of Foreign Affairs and from the Swiss Federal Department of Foreign Affairs" and "Crisis Cell of the Corporation that works H24".
#9	Any emergency call on the Corporation hot line goes to the Intl.SOS partner for security who transfers the call to Intl.SOS if the call is medical. An international medical insurance covers employees in case of disability or death; travelers must make sure to have adequate health insurance coverage either via their country organization or privately at their own expenses. The medical assistance is with Intl.SOS; however for security cases they perform a few cases themselves (in example some road evacuations) or via security assistance providers. They have a network of health physicians coordinated by a group health physician at the Head Quarters level and in some countries where the Corporation is present but not all of them, where they can perform health checks.
#10	Everybody including the families, is covered by the medical insurance of the Organization. During a mission, the medical expenses are taken in charge by the insurance and the assistance expenses by the agencies of the Organization. All the traveling people are covered by a medical assistance with Intl.SOS. The Organization has its own medical department, both centralized and decentralized where the pre-departure and periodic health-checks are passed.
#11	All the collaborators are covered by a medical insurance and the travelers by a medical assistance with Intl.SOS, which is activated for the most serious cases only. The people upon a departure receive a first aid kit with the necessary prophylactic drugs. To be noted that the travelers coming back from a mission considered as difficult are debriefed upon their return by the same team than the one of their briefing before their departure.
#12	A periodical health-check is compulsory for all the collaborators. It is done upon their hiring, then on a regular basis (every year or two years, according to the doctor's recommendation). The immunizations are verified and updated if required during the periodical health-checks and during the pre-departure visits. The permanent staff of the Organization is covered by a medical insurance and assistance for their journeys; the immunizations are taken in charge. The « non-staffs » are covered by the Organization for the accidents and the pathologies without a pre-existing condition only.
#13	A health assessment is compulsory every 5 years for collaborators under 40, every 2 years when between 40 and 55 and every year for those over 55 years old. Some collaborators with a special status such as the drivers and the security people have a medical assessment every year too. The necessary immunizations are performed. A strong medical insurance is provided, covering at least 80% of the medical costs even abroad. The Organization offers their capability to extract their people from abroad when the local care are not adequate. They use internal means and Intl.SOS for the most serious cases only (which represents 5% of the total

	evacuations and repatriations). The cover includes all dependents of expatriates abroad with them.
#14	The Organization provides a group blanket medical insurance for everyone sent abroad on behalf of the Organization (it will include the journalists soon); the expatriates' families are covered. The travel medical assistance with Intl.SOS covers everyone too. The hot line is with Intl.SOS. Every traveler receives an Intl.SOS card with the SOS numbers. There is no in-house corporation medical department (the Organization has 200 employees globally only). No check-up is organized by the Organization but this is planned soon. A vaccination program is in place with a local hospital. They provide tool kits and chemoprophylaxis for malaria to their travelers.
#15	INSURANCE - the staff of the Organization (local and international) as well as the families accompanying them are covered by an international insurance. The non-staffs must take an insurance covering them in their country of destination. The national collaborators are covered by the Organization in their country of origin but are also covered by the insurance of the Organization if they are sent outside of their country of origin. MEDICAL ASSISTANCE - Everybody is covered by Intl.SOS. HEALTH-CHECKS - The medical fitness for work is given for a clearance (this procedure is compulsory) is based on the results of the last periodic check-up and on the person's medical file follow-up. EMEREGNCY KITS AND DRUGS – Only the people departing from the Head Quarters have access to them. However, emergency kits are sent to the countries with the most difficult health and medical equipment and drugs supply conditions; the stocks of these kits are doubled sometimes for the extreme conditions.

The analysis of these answers is subject of the following table.

Table 13 - Analysis of the answers to Question 1, Duty of Prevention.

NP	ANALYSIS of the Question 1 - Duty of Prevention LIST OF THE PRATICES				CORPORATES											INT'NAL ORGANIZATIONS								GRAND TOTAL		
					#1	#2	#3	#4	#5	#6	#7	#8	#9	TTL	%	#10	#11	#12	#13	#14	#15	TTL	%	TTL	Percent.	
1	Medical Insurance	Travelers			1	1	1		1	1	1			6	67%	1	1	1	1	1		5	83%	11	73%	73%
1		Expatriates	Collaborator		1	1	1	1	1	1	1	1	1	9	100%	1	1	1	1	1	1	6	100%	15	100%	100%
1			Family			1	1				1	1		4	44%	1	1		1	1	1	5	83%	9	60%	60%
1		Non-staff												0	0%			1		1		2	33%	2	13%	13%
1		Mobile NLW									1			1	11%	NA	NA	NA	NA	NA	NA	-	-	-	-	-
1	Medical assistance	Intl.SOS			1	1	1	1	1	1	1	1	1	9	100%	1	1	1	1	1	1	6	100%	15	100%	100%
1	In-house medical department	At the Head Quarters					1	1	1	1	1		1	6	67%	1	1		1		1	4	67%	10	67%	67%
		On site							1		**1**			2	22%	1	1					2	33%	4	27%	
1	Pre-departure check-ups offered	Travelers		Co										0	0%	1		1	1		1	4	67%	4	27%	80%
				Vo		1	1	1	1	1	1		1	7	78%		1					1	17%	8	53%	
1		Expatriates	Collaborator	Co			1		1		1		1	4	44%	1	1	1	1		1	5	83%	9	60%	80%
				Vo		1		1		1				3	33%							0	0%	3	20%	
1			Family						1					1	11%				1			1	17%	2	13%	13%
1		Mobile NLW									1			1	11%	NA	NA	NA	NA	NA	NA	-	-	-	-	-
1	Immunizations Offered			Co					1		1			2	22%	1	1	1	1	1	1	6	100%	8	53%	80%
				Vo		1	1					1	1	4	44%							0	0%	4	27%	
1	Uses Medical Alerts	Of Intl.SOS or Travel Tracker®				1			1				1	3	33%			1		1		2	33%	5	33%	80%
		Others (DFAE, WHO, CDC, etc.)				1	1			1		1		4	44%	1	1		1	1	1	5	83%	9	60%	
1	Hot Line	Except Intl.SOS						1	1			1	1	4	44%	1						1	17%	5	33%	33%
1	Card with emergency numbers	Intl.SOS only			1	1	1		1	1	1		1	7	78%	1	1	1	1	1		5	83%	12	80%	100%
		Other						1				1		2	22%						1	1	17%	3	20%	
1	Emergency kit	Provided						1		1				2	22%		1			1	1	3	50%	5	33%	33%
1	Prophylactic drugs	Provided						1		1				2	22%		1	1		1	1	4	67%	6	40%	40%
17	TOTAL				4	10	10	9	12	10	12	7	9			12	13	10	11	11	11					

NP = Number of Pratices - NLW = National Local Workers - Co = Compulsory - Vo = Voluntary - NA = Not applicable - TTL = Total - % = Percentage
DFAE = Swiss Department of Foreign Affairs

We counted 17 practices of the Duty of Prevention grouped in 10 families in the above table.

All the expatriated collaborators are offered a health care insurance covering them abroad. This is understandable as an expatriate does not depend any more on the Swiss system of medical or accident coverage. For their families, things are much less clear, some employers (40 % in this study) having decided that these are of the responsibility of the expatriated collaborator. For the travelers, who remain covered by the Swiss insurance system, the employers' choices are highly varied, 73 % of them covering them medically during their journeys abroad. A single corporation covers its National Local

Workers (the international organizations do not make this distinction between the staff linked to the country of the head office and the local staff).

By definition, because the target population of this inquiry consists of clients of Intl.SOS, all the travelers and the expatriates of the interviewees are covered by a medical assistance with Intl.SOS.

67 % of the interviewees were equipped with an internal medical department, this being motivated only for big entities.

In our survey, 80 % of the expatriates and the travelers are offered medical check-ups, this does not mean that they are compulsory; this will be developed farther in the chapter on medical check-ups. Very few employers offer such health assessments to their expatriates' families (13%). A single corporation makes it for its NLWs. The medical check-ups of non-staffs are of the responsibility of their real employer or themselves but to verify the fitness of a non-staff sent abroad at the request of a corporation or of an organization comes under the matter of the Duty of Control of the latter.

80 % of the interviewees use medical alerts. Their sources can be multiple beyond those of Intl.SOS: WHO, CDC[76] first of all, but also the Institute of Tropical Medicine of Basel, the Federal Department of Foreign Affairs, the French Ministry of Foreign Affairs, Tropimed, Santé-Voyages, GeoSentinel, … It obliges to have a permanent watch. Indeed, most of these alerts are updated without warning message, which exists at Intl.SOS at two levels, that of the warning messages for the clients who subscribed to this service and that of the Travel Tracker.

Only 4 corporations declared to have set up Hot Line, which is sometimes diverted towards an assistance provider. The Hot Line also allows the organization of medical, security and professional urgent matters. Two corporations have only medical Hot Line.

Two employers only declare to give a card with emergency numbers to their candidates for a departure. On the other hand, Intl.SOS distributes cards with the numbers of their alarm centers worldwide to all the clients who request it.

Finally two corporations and two international organizations offer a medical kit and\or prophylactic medicines (essentially against malaria). It is reminded that some sites with a local medical antenna on the spot provide anti-malarial drugs to their expatriates.

➢ Duty of Monitoring

The answers to Question 1, Duty of Monitoring are reported in the following table.

Table 14 - Answers to Question 1, Duty of Monitoring.

Question 1 – DUTY OF MONITORING	
#1	The Corporation has no mean to control if the recommended actions of prevention are applied by the collaborators: immunizations, information, etc. Only the Travel Tracker gives the assurance that the information was properly distributed to the candidate to the travel.
#2	Health checks and immunizations are highly recommended only and there is no control done on who does them or not. Should a collaborator be declared unfit to travel after a health check, it is his responsibility to act accordingly and to refuse the travel. There is no in-house corporation medical department.
#3	There is no formal control put in place for the medical check-up excepted for the departure and the return of the expatriates. There is neither any control off the immunizations done. By the way, there has been an attempt to work on the concept of « mesvaccins.ch »(1) (project supported the Swiss Confederation) but it is not in place formally; the idea would be at least to keep a digital copy of the immunization records for having them available in case of loss for example, or if the required by a doctor, etc. . (1) Website where you can record your immunizations (with the possibility to send a scanned copy of the immunization records), which tells the immunizations to have for the country of

76 Centers for Disease Control and Prevention of Atlanta, Georgia, USA.

	destination, sends booster alerts, allows the recording of the medical details in order to make them accessible to a doctor in case of emergency if necessary, and more.
#4	The preventive medical system being on a total voluntary basis, whether for the expatriates or for the business travelers, no control of any sort has been established.
#5	Every expatriate must sign the information flyer he receives before being allowed to sign his contract. Once a year, all expatriates must have a fit-for-work certificate. This certificate is valid one year. The administration receives the fit-for-work certificate only. The medical results are given to the doctor on site. The headquarters doctors review the medical results of doubtful certificates only.
#6	People are told what they should be doing and what the corporation offers. People are then expected to heed the advice. It is a Corporation policy not to monitor what is considered as the private responsibility of the employees. Therefore there is no monitoring on health checks, vaccinations, etc.
#7	FOR THE EXPATRIATES, there is no departure nor change of assignment abroad without medical aptitude validated, including an update of the immunizations. FOR THE TRAVELERS, there is no compulsory health-check. The collaborator is responsible of himself with the support of the responsible person of the Security and Medical Departments of the Corporation. There is no control on the medical information received by the candidate to the travel or on his immunization updates. There is no centralized travel agency because of the decentralization of the Corporation; thus it is not possible to know in a centralized and quick way who is where and who is going to go where. The Travel Tracker has not been accepted by the management because it is not the mentality of the Corporation (sensation of surveillance?).
#8	No whatever control has been formalized except for the compulsory attendance at the briefings for the future expatriates, neither for ensuring that the collaborator informed himself on the incurred risks (there is no waiver to sign, the Corporation does not use the Travel Tracker of Intl.SOS that sends a Country Guide when booking a plane ticket but another travel locator that does not have that functionality), nor for checking that the recommended immunizations were done, nor for checking the aptitude to travel or to an expatriation. The HR department is the one ensuring that the profile of the candidate to an expatriation is adequate with the post and the country of destination.
#9	The Corporation makes their travelers and expatriates sign a waiver stating that they have read the Corporation travel policy for medium and high risk countries and have received a travel security briefing for high risk countries. They use the Travel Tracker for localizing their travelers in case of danger. They have a travel security approval system for medium and high risk countries to have additional details about travel plans and preparedness levels (including medical info and emergency contact details as well as confirmation of adequate insurance coverage). Beyond that, there is no control formalized. E.g. there is no control on the collaborators' fitness for a travel or an expatriation, nor on the vaccines done, nor on the adequacy of the traveler's medical insurance in case of problem abroad.
#10	The aptitude to travel and the immunizations are controlled during the pre-reassignment check-ups, during the medical clearance and during the periodical check-ups. The families are not examined and their aptitude to a re-assignment not controlled.
#11	The aptitude to travel and the immunizations are controlled and updated during the compulsory periodical medical check-up. The majority of the people pass it every two years except the healthy youngest people without any risky professional context (the check-up is then less frequent) and the people above 55 years old for whom the frequency is annual. For the travels, a difference is made for the destinations without danger and those considered as "difficult".

#12	The Organization always know who travels and where to. All the travelers' tickets are issued by the in--house travel agency and the bookings are automatically transferred to Intl.SOS (via the Travel Tracker). Twice a week, a document is issued by the Travel Team to the attention of the medical service provider. This document includes all the travels planned in the thirty coming days. Filters exist in order to identify the countries at risk according to the destination (NB- A problem is being analyzed: the health service provider who asks the travelers to proceed receives the list twice a week only; it is too late some times as it happens that departures are within 3 days form their decision. A project is in process for the list be issued automatically twice daily). Another project is in discussion to know if a « waiver » must be signed by the travelers before their departure; the legal extent of such a signature is questioned.
#13	A medical clearance is compulsory before traveling; otherwise, all the insurance covers would be weaved.
#14	Health checks are highly recommended only and there is no control done on who does them or not. The vaccines are controlled. The insurance cover is monitored. The travelers are followed via the Travel Tracker.
#15	1- A medical clearance is compulsory before a departure; nevertheless, some people by-pass it. The collaborators tend to come spontaneously for their clearance when risky countries. 2- The immunizations done are recorded electronically on the collaborator's medical file. It allows to generate alerts when a booster is required. The immunizations are also reviewed and updated if necessary during the medical clearance requests. 3- As the information is given by mail, a copy of it is kept in the collaborator's file for keeping a proof that he was informed properly in case of litigation. 4- The Security department is able to know very rapidly who is where and who is going to go where thanks to the medical and security clearances recorded in the IT system of the Organization. 5- The non-staffs must show the proof that they have taken a medical insurance covering them at destination (the accidents during a mission are taken in charge by the Organization) at the time of their recruitment.

The summary of the analysis of the answers is shown in the following table:

Table 15 - Analysis of the answers to Question 1, Duty of Monitoring.

NP	ANALYSIS of the Question 1 - Duty of Monitoring LIST OF PRATICES		CORPORATES											INT'NAL ORGANIZATIONS								GRAND TOTAL		
			#1	#2	#3	#4	#5	#6	#7	#8	#9	TTL	%	#10	#11	#12	#13	#14	#15	TTL	%	TTL	Percent.	
1	Information received	By mail, waiver, Travel Tracker®	1	1			1				1	4	44%			1		1		2	33%	6	40%	60%
		By a compulsory briefing								1		1	11%	1			1			2	33%	3	20%	
	Presence of an in-house medical department																							
1	Certificate of aptitude, departure clearance, etc.	For the travelers							1			1	11%	1		1	1		1	4	67%	5	33%	33%
1		For the expatriates			1		1		1			3	33%	1	1	1	1		1	5	83%	8	53%	53%
1		For the expatriates families										0	0%							0	0%	0	0%	0%
1		For the non-staffs										0	0%							0	0%	0	0%	0%
1		For the mobile NLW										0	0%	NA	NA	NA	NA	NA	NA	-	-	-	-	-
1	Immunizations	Registered					1					1	11%	1	1		1	1	1	5	83%	6	40%	40%
1	Localization while traveling	Travel Tracker®	1	1							1	3	33%			1		1	1	3	50%	6	40%	73%
		Other			1		1			1		3	33%	1	1					2	33%	5	33%	
1	Adequate insurance	For the travelers	1	1	1		1	1	1			6	67%	1	1	1	1	1		5	83%	11	73%	73%
1		For the expatriates	1	1	1	1	1	1	1	1	1	9	100%	1	1	1	1	1	1	6	100%	15	100%	100%
1		For the expatriates families		1	1				1	1		4	44%	1	1		1	1	1	5	83%	9	60%	60%
1		For the non-staffs										0	0%					1	1	2	33%	2	13%	13%
1		For the mobile NLW							1			1	11%	NA	NA	NA	NA	NA	NA	-	-	-	-	-
13	TOTAL		4	5	5	1	6	2	6	4	3			8	6	6	7	7	7					

NP = Number of Pratices - NLW = National Local Workers - NA = Not Applicable - TTL = Total - % = Percentage.

The Duty of Monitoring is the one which is least well applied: the interviewees quoted five families of basic checks.

- 60 % of the interviewees state that their collaborators upon departure received the necessary information
- 53 % verify the medical aptitude of their expatriates, of that, 33 % of their travelers in mission and none of their expatriate families, non-staffs and mobile NLW
- 40% check that the immunizations are up-to-date
- 73% know at any time where their travelers and expatriates are or where they will be soon

It is notable that two companies do not control anything and do so voluntarily, this for internal but rather Swiss cultural reasons finally: they do not want to encroach on the collaborators' private life, they want him to be responsible for his personal choices, for himself and his family, they trust him… Nevertheless, a journey, even short, can be very binding for the body. So the people with a light cardiac insufficiency perfectly compensated at home can decompensate when they pass from a cold and dry winter to a hot and very wet tropical rainy season.

The non-staffs sent on mission are practically not checked, except in one case in our survey; the organization in question state that they have the medical insurance adapted to their destination but do not verify their medical fitness, nor their immunizations. This problem of the non-staffs concerns essentially the international organizations, who send a lot of them on mission. On the side of corporations, the question of the mobility of the National Local Workers (NLW) is little evoked. Only one of them raised the subject to tell us that it was setting up a real mobility policy (social cover, medical, assistance, etc.) for their African NLW travelers or expatriates. Once this plan is functional, it will be applied to the other continents. It is the only global approach for a population of NLW that was mentioned to us during all the interviews.

The families of the expatriates are the forgotten in the Duty of Monitoring in this study: nobody checks if they are fit for the country of destination. Actually, particularly in corporations, the expatriation does not attract any more as many people as during the previous decades, especially for little attractive destinations (remote site, too hot or too cold climate, etc.). To check the families would be acting as an additional brake in the recruitment for the expatriation. The managers seem to prefer often to assume the risk of a medically unfit or badly psychologically prepared family. However, there is a Not insignificant risk of medical repatriation (sometimes chargeable to the corporation if the medical condition is excluded from the contract for example because of a pre-existing condition), even of an early end of the expatriation, for which we saw that it could be very expensive.

This choice to control creates risks, very probably thought and accepted by the managers. Indeed, the negligence of a collaborator - even honestly (for example because he makes his work a priority before any other consideration, because he has too much work or because he has no time or too short a time before a departure to inform himself, see a doctor or be immunized, etc.) - can be very detrimental for both parties. On one side the collaborator risks his health, on the other side the employer is at risk to be estimated, or even considered as responsible for the situation. In case of a problem, a compensation accepted, or even negotiated (rest, payment of all the incurred expenses, etc.) can settle the issue; However, it can also end in a trial if the collaborator (or his family) estimates to have been put in danger by the passive attitude of his employer, as the jurisprudence shows it, the latter existing, at the moment, abroad only[77].

77 See the foreign jurisprudence in Appendix 1.

➢ Duty of intervention

The interviewees' answers are grouped in the table below.

Table 16 - Answers to Question 1 – Duty of Intervention.

Question 1 – DUTY OF INTERVENTION	
#1	The local Security Departments edicts rules locally: obligation to be driven by a driver, ban to go out in certain conditions, ban to travel to countries with too high a risk… Globally, a reshaping of the Group Travel Policy is in process.
#2	If the country is considered at with too high a risk, a travel can be forbidden. Corporation Fact-Sheets are made by in-house risk experts or via in-house Operational Risk Committees; there is one for every country where the Corporation operates. A decision to issue rules can be made at their level if concerning a local issue or at a centralized level if the risk is at a global level (pandemics). The day-to-day decisions are issued by the in-house risk experts. The scope of decreeing includes any aspect: driving policy, degree of liberty of action, etc. In example, it could be a do not leave the hotel at night rule if the area is dangerous; actually, this happens exceptionally because the corporation travelers stay in high class hotels and generally go to most of the time rather safe big cities and not to the field as it may happen for companies of other sectors of activity).
#3	A travel can be banned if the country of destination is estimated as too much at risk. The Corporation has its own worldwide office for estimating the risks, which analyzes essentially the security and the markets; the sanitary risk is included when it becomes too high. Actually, if a red flag is returned for a destination, you need a GM's authorization to confirm the journey. The Corporation edicts rules for driving vehicles, for night moves, etc. On the other hand, all these rules do not have the same power for the private activities during a business trip.
#4	The Corporation philosophy is to forbid as little as possible, each one having to adapt his attitude to the situation. Therefore, travel bans are very rare. However, strong recommendations are issued, based on the WHO and local national authorities prescriptions. The internet address for the WHO recommendations is made available to the business travelers for everyone may inform himself. A hierarchic manager can ban a travel; the medical department has never had to do it. Certain destinations such as Afghanistan are discussed with the chief of the Security Department.
#5	The employee is not authorized to sign his contract if he has not signed the information flyer. He is not authorized to work without a valid fit-for-work medical certificate. The examination is done according to a standard protocol and list of tests to be done by all the applicants. The headquarters regularly issue lists of countries where it is forbidden to go on mission. The Corporation can trace the travelers and know where they are planning to go or where they are via their internal travel agency when a ticket is booked; they locate their expatriates easily via their own IT system.
#6	There is a list of countries issued by the Corporation for which travels are not permitted. A discussion at a high level of hierarchy is possible for special cases.
#7	Nor the Medical Department nor the person responsible for Security at the Head Office may ban a travel if the destination turns out to be too dangerous; on the other hand, they may issue an alert strongly dis-advising a trip to that destination. On the other hand, the branch Directors may ban a travel; they follow the recommendations of the Medical Department and of the person responsible of the Security as their own responsibility would be directly involved if not respecting them.
#8	The crisis cellule, which is handled by the Corporation Security Department, has the power to ban a trip in case of danger for the collaborators. The information is available on the Corporation intranet and applied directly at the level their in-house travel agency. The crisis cell uses several sources for making a decision to ban a travel: the recommendations of the

	French Ministry of Health and of the Swiss Federal Office of Foreign Affairs as well as the alerts of Intl.SOS.
#9	Any departure to a destination considered as highly or extremely risky requires an official approval by the security department who has the power to forbid a travel. During such procedures, they ask the potential traveler to provide some medical information such as his/her blood group and list of allergies. The goal is to be able to provide them in case of emergency to the treating doctor when the traveler-patient is in the incapacity to give them him/herself. However, this is filled on a voluntary basis.
#10	The person upon a departure must have obtained the green light from the Medical Department, who may ban a travel for medical reasons concerning the examined person or for epidemiological reasons in the country of destination. The medical alerts come from WHO essentially. It is possible to know rapidly who is where and who is going to go where via the medical clearances; this is why a traveler locator such as Travel Tracker has not been set up.
#11	It is compulsory that the planned journey is approved before buying a ticket. The Medical Department has the power to issue contra-indications, either personal or for a said destination. A weekly information meeting gathering the different departments of the Organization for informing everyone. Every Head of department is informed of the "difficult" or banned destinations, which allows him to act accordingly with his subordinates.
#12	There is no formal travel ban. There is no formal blockage of the travelers who do not visit the health provider. Some destinations can be banned by the Security Department. The members of the Executive Committee may disregard this ban but this has never happened so far. The central question is that it is necessary to protect both the collaborator, sometimes against himself, and the Organization.
#13	The medical department has the power to refuse a travel to an unfit employee. The briefing organized by the Security Department are compulsory and give right when attended to a clearance for departure. Upon arrival, the local Security Department provides rules to be followed according to the local situation.
#14	There is a daily meeting for assessing the dangers of the planned travels; the list comes via the Travel Tracker. If the country of destination is considered at too high a risk, a travel can be forbidden by the Security Department. As no heath check is required there is no travel forbidden for medical personal reasons by the Organization, there is no control of the medical fitness to travel: the collaborator decides by him/herself. It is possible to locate the travelers immediately upon request via the Travel Tracker.
#15	On the health side, the Medical Department cannot formally ban a destination but gives strong advices issued from recommendations at the international level. For the ones departing to very difficult destinations, an adapted support is set up for the traveler or the expatriate. For the too dangerous destinations, the Head of the Medical department discusses with the HR Director, who has the power to ban a departure.

The distribution of the answers received is reported in the following table.

Table 17 - Analysis of the answers to Question 1 – Duty of Intervention.

NP	ANALYSIS of Question 1 - Duty of Intervention LIST OF PRATICES		CORPORATES											ORGANIZATIONS								GRAND TOTAL		
			#1	#2	#3	#4	#5	#6	#7	#8	#9	TTL	%	#10	#11	#12	#13	#14	#15	TTL	%	TTL	Percent.	
1	Travel Ban	Total ban possible	1	1	1	1	1	1	1	1	1	9	100%	1	1		1	1	1	5	83%	14	93%	
		Strong recommendation only										0	0%			1				1	17%	1	7%	
		Issued by: Medical Department										0	0%	1	1					2	33%	2	13%	93%
		Issued by: Security Department	1	1	1					1	1	5	56%			1	1	1		3	50%	8	53%	
		Issued by: Management				1	1	1	1			4	44%						1	1	17%	5	33%	
1	TRAVEL TRACKER® or equivalent		1	1	1		1			1	1	6	67%	1	1	1		1	1	5	83%	11	73%	73%
2	Have a medical dpt	TOTAL	2	2	2	1	2	1	1	2	2			2	2	1	1	2	2					

NP = Numbre of Pratices - TTL = Total - % = Percentage

We can note that:

All the interviewees gave themselves the possibility of prohibiting a journey with the exception of an organization. We can almost say that it did not need to make it because the strong recommendations not to leave issued by their security department have been always followed until now; making the collaborators responsible has been a sufficient argument. Indeed, the person who would pass over such a recommendation would be considered as directly responsible for the negative consequences which it could engender.

Globally it is the security department (53 %) that makes the decisions to ban, before the management which took that right 5 times out of 15 (33 % of the cases), the medical department having this power twice only (13% of the cases) despite the presence of a medical department 10 times out of 15. We imagine that there must have been discussions with the medical department when the security department bans a journey for medical reasons.

It is sometimes possible (4 times in our survey) to discuss a ban with a person at the directorial level. We imagine that the management will hesitate strongly before giving an authorization of departure for a medically dangerous destination by going against the opinion or the recommendations of its security and/or medical department.

73 % of the corporations (6) and organizations (5) are equipped with means to localize immediately their staff who either already left, or are on their way to leave to a destination abroad; it will allow their employer to contact them and give them instructions quickly in case this destination would have become dangerous.

4.1.3. Results and analyses for the Questions 2 to 5: What do you think of the medical check-ups in the perspective of Duty of Care?

➢ Question 2

Table 18 - Answers to Question 2.

QUESTION 2 – Does a preventive health assessment have its place in your conception of Duty of Care for your business travelers and/or expatriates?		Yes	No
#1	Yes. The problem for the Corporation is the time required for setting up such a project.	1	0
#2	Yes	1	0
#3	Yes	1	0
#4	Yes	1	0
#5	Yes	1	0
#6	Yes for the expatriates and their accompanying family members.	1	0
#7	Yes	1	0
#8	Yes	1	0
#9	Yes	1	0
#10	Yes	1	0
#11	Yes	1	0
#12	Yes	1	0
#13	Yes	1	0
#14	Yes	1	0
#15	Yes	1	0

We notice without great surprise that 100 % of the questioned people consider that medical check-ups have their place in the Duty of Care. We shall revert to this point because everybody does not set up one.

➢ Question 3

We have two types of answers, according to the fact that the corporation or the organization had set up medical check-ups or not.

If the answer was yes, we asked to specify the conditions of passage of these health checks.

Table 19 - Answers to Question 3 when the health assessments are organized.

QUESTION 3 - Did you/Have you organized health checks for your travelers and/or expatriates?	
Answer = YES	
#1	Yes. The population having access to them and the frequency of the check-ups vary on a region to region basis, according also to the local OH regulations. In Switzerland, the travelers and expatriates are entitled to health checks but not on a mandatory basis: they are strongly recommended to have one, especially if their country of destination is considered as a high risk one. They use the Intl.SOS Health Check program requiring to go to a designated Health Check Medical Center. They may go to their family doctor if wishing to do so, but this is at their own expense. ? There are 3 main remarks done by the enrolled: 1) "The check-up is worthless as too basic, not including a whole-body MRI, too few tests are done, etc." 2) Some people used to require a Health Check Medical Center closer from their home place. As the great majority of the enrolled people in Switzerland lives in Zurich or Geneva, this complain does not surge any more. 3) The Corporation Costs Center Heads complained that the costs were too high, especially during the last crisis years. The interviewed person is in favor of the health checks but he still needs to convince some of the entitled collaborators. Also he thinks that there is no need for sophisticated tests during the check-up as the role of the check-up is to detect a pathology ; if any, then the patient should consult further more for a complete diagnosis and treatment via the normal health system. The list of tests as performed today seems adequate to him.
#2	Yes, for the expatriates. Individual business travelers, as they do not go into the field, have no need for such a health assessment. However, the to-be expatriated employees should participate; therefore they organize their health checks themselves, with guidance from the corporation. It does not apply to their possible accompanying family as the Corporation thinks that the employer's Duty of Care cannot be extended to them. It is up to the employee to take care of his family. However, the Corporation supports prospective expatriates in facilitating access to e.g. special needs care for accompanying family members. First, the applicant to an expatriation fills a medical questionnaire provided by the Corporation insurer. It was set-up that way because the Corporation does not want to be linked to a medical inquiry for avoiding possible data privacy issues that could interfere negatively in the employer-employee relationship. If a medical problem appears at the reading of the questionnaire by the insurer, the expatriate must pass a health-check with whoever he/she wants, generally his/her family doctor, on the basis of the protocol and tests set-up by the Head of the Medical Services of the Corporation. The problems are handled by the doctors at the local level. The Corporation does not wish any implication of the Corporation in the employee's health checks. The Corporation thinks that the employee must not be totally assisted. The Corporation discusses things expected to be done or given to him/her. The Corporation also facilitates the execution, but the final decision on how and what must remain the responsibility of the future expatriate and his/her family.
#3	Yes. These medical check-ups should be minimalist. It's useless to make do a long list of examinations for a healthy person coming for a preventive medical check-up. The purpose of this medical check-up is to be a reference point to detect changes or especially in case of occurrence of a pathology which would then orientate the medical examination and would make do a check-up adapted to this one. An audit is regularly made with the collaborators

	passing these medical check-ups and the rate of satisfaction is very high. No further remark to add.
#4	Yes. They are passed internally. However, if a person who is entitled to one of these medical check-ups decided to have it with his family doctor, it would be accepted and paid off by the Corporation. These health assessments are systematically made on a voluntary basis, whether it is for the expatriates as for the frequent business travelers. The very particular cases of tropical medicine are referred to specialized centers. These medical check-ups are neither minimalist nor extensive (no examination specialized such as a colonoscopy). They depend on the age and the risks in the countries of destination. The periodicity of these examinations depends on the existence or not on the pathology and on the age. The classic average periodicity turns around one year. However, the latter are rather complete, including around about twenty chemistry parameters. They have never heard negative criticisms. Generally, these medical check-ups are seen as a free general assessment and the journeys or stays abroad are not often a motive to come and be examined (for example, the cholesterol level is considered as more interesting than the report of the absence of a tropical disease).
#5	Yes for the expatriates (compulsory every two years), no for their families, no for the business travelers; however, the latest pass an occupational health assessment according to the frequency imposed by the legislation of the country where they are based. The check-ups are more and more considered as an essential element for several reasons, human of course but also economical (for example the Corporation must take in charge the repatriation, even the care, in case of relapse of a pre-existing condition). The difficulty felt is the respect of the medical secret. At the international level, it gives arguments to the collaborators are reluctant to pass their medical check-up. The health checks are globally well accepted; however, certain collaborators little appreciate to have to go to an imposed medical center for passing their check-up.
#6	This is very variable as depending on the employees' culture. Some of them think they are worthless, others accept them easily. ? They are compulsory once a year for all expatriates. For the business travelers from the offices, it depends the local laws (e.g., it is not compulsory in the Geneva office). Generally it is also done once a year. All the expatriates, all family members if on site with the employee, and some families (depending from the position of the employee). It is done in the country of domicile by the doctor chosen by the employee (Italy is an exception as any employee working in that country should have a fit-for-work certificate issued by an Italian Doctor); for some countries, an applicant may only go to medical centers selected and approved by the Corporation.
#7	Yes, in most of the national offices of the Corporation but not in all. In Switzerland, they are available for all the collaborators on a voluntary basis and are compulsory only for the expatriates whose destination is nor Europe, nor North America. However, as no control is made on who passes the check-ups, this obligation is theoretical. No negative feed-back has been heard on the health checks so far. They are considered (NB by the users) as rather complete and are paid by the Corporation.
#8	Yes.
#9	Yes. These health checks have decreased (in terms of number of examinations performed) with time, a lot of the tests that were done 10 years ago not being done any more (syphilis search, systematical chest X-ray, etc.). On the other hand, they are adapted to the work post and to the age. The people are used to this check-up system for many years and are satisfied with it in a huge majority of the cases. Only a few people must be reminded to pass them.
#10	Yes. The periodical health checks are performed at a periodicity which differs according to the collaborator's status. the medical check-ups are done in a double perspective, occupational health and fitness to the country of destination; actually, it goes a lot much

	further as they also participate to the person's medical follow-up until his retirement. The people passing these assessments are satisfied. The check-ups help to reduce the pre-departure stress, in particular when it is done in an emergency.
#11	Yes. An audit of satisfaction is periodically made. People are satisfied in a general way. The main criticism is that the system is heavy, especially when they must visit the health provider several times in the same year while their health status did not change between two journeys. How to reduce their frequency is being studied.
#12	Yes. The head of the medical department at the Head Quarters sees in fact very few collaborators for medical check-ups only. Most of the collaborators are dispatched worldwide in countries with sometimes extreme medical risk and pass their medical check-up with the doctor of their choice according to protocols set up by the medical department of the Head Quarters. The pre-employment check-up is compulsory; it is followed by periodical assessments at a variable frequency. It begins with a written rather detailed questionnaire common for everyone. Certain tests are optional, proposed for example according to the pathology of the patient; then they are on a voluntary basis. Globally, these medical check-ups are important because, for a lot of staffs, it is the only one to which they will have access because of the lack of medical structures in their own country. To note that these medical check-ups do not concern non-staffs, which represent nevertheless an important part of the people missioned by the Organization. Non-staffs have to supply a "fit-for-work certificate" signed by a doctor and to attach a copy of an up to date immunization certificate. Families are also excluded from it because being of the responsibility of the expatriate; however, the examinations and immunizations made for them are covered by the insurance proposed to them. The perception of the health checks is very variable; either they are totally accepted, or their utility is questioned. on the other hand, as these check-ups are difficult of access in some countries, the local collaborators are sometimes very happy to have one, particularly if the check-ups detect a disease early enough for being treated correctly with success (for example, tuberculosis, prostate cancers).

The analysis gives the following table.

Table 20 - Analysis of the answers to Question 3 when health assessments are organized.

QUESTION 3 - ANALYSIS			CORPORATES									INT'NAL ORGANIZATIONS							GRD TTL	
Health assessments are organized			#1	#2	#3	#4	#5	#6	#7	TTL	%	#10	#11	#12	#13	#14	TTL	%	TTL	%
FOR ALL THE EMPLOYEES	Pre-employment assessment	Compulsory					1	1		2	29%	1	1	1	1	1	5	100%	7	58%
		Voluntary								0	0%						0	0%	0	0%
	Periodic assessment	Compulsory					1	1		2	29%	1	1	1	1	1	5	100%	7	58%
		Voluntary								0	0%						0	0%	0	0%
EXPATRIATES	Pre-departure assessment	Compulsory			1		1	1	1	4	57%	1	1	1	1	1	5	100%	9	75%
		Voluntary	1	1		1				3	43%						0	0%	3	25%
	Families pass a health assessment							1		1	14%						0	0%	1	8%
TRAVELERS	Pre-departure assessment	Compulsory								0	0%	1	1	1	1	1	5	100%	5	42%
		Voluntary	1	1	1	1	1	1	1	7	100%						0	0%	7	58%
BY WHOM	In-house medical department				1	1	1	1	1	5	71%	1	1	1		1	4	80%	9	75%
	Sub-contracted		1				1	1	1	4	57%				1		1	20%	5	42%
	Any doctor (family, etc.)		1	1	1	1			1	5	71%					1	1	20%	6	50%
FORM	Pre-check-up questionnaire already			1						1	14%				1		1	20%	2	17%
	Minimalist				1					1	14%						0	0%	1	8%
	Intermediary		1	1		1	1	1	1	6	86%	1	1	1	1	1	5	100%	11	92%
	Developed									0	0%						0	0%	0	0%
CRITICS	Well accepted				1	1	1	1		4	57%		1	1	1		3	60%	7	58%
	Distance to the Examination Centre		1				1			2	29%						0	0%	2	17%
	Red tape (time, administration)									0	0%				1		1	20%	1	8%
	Utility questioned		1					1		2	29%						0	0%	2	17%
	Expensive		1							1	14%						0	0%	1	8%

TTL = Total - GRD TTL = Grand Total - % = Percentage

We note that 2 companies (29 % of them) and all the organizations declare to organize pre-employment and periodical medical check-ups. All the organizations of this group (answer = yes) oblige their expatriates and their travelers on departure to have a medical fitness check. It is often done on the basis of the last periodic medical examination and on the medical follow-up of the person, this one being kindly requested for a check-up only if it is medically necessary. The opinions are mixed for the corporations. They oblige their expatriates to pass a medical check-up in 75 % of the cases only and never their travelers. We have there a paradox with the 100 % of opinions that the medical check-ups are part of the Duty of Care (see the answers to the previous question). This is due to the fact that the corporations consider their collaborators as responsible people who have to take care of themselves. To be noted that the obligation to provide a health check to the expatriates before their departure is probably due to a requirement of the insurance which is going to cover them during their expatriation while the travelers remain under their Swiss insurance cover.

If the answer was no, which represents 3 cases out of the 15 interviews, that is 20% of the interviewees in our inquiry, we asked why. Here are the answers that we got:

Table 21 - Answers to Question 3 when health checks are not organized.

QUESTION 3 - Did you/Have you organized health checks for your travelers and/or expatriates?	
Answer = NO	
#8	Essentially because it is still badly accepted by the collaborators who do not see the reason why to pass them. The Corporation wants to persuade them and not oblige them to pass a check-up. Doing it via their LMS (Learning Management System, an e-learning designed and realized internally in implementation process within the Corporation) would allow an awareness of the collaborators and, for the recalcitrant ones, to force them to inform themselves, to train themselves, etc. To be noted that some small programs existed in the past (immunization or little checkups) organized in certain entities of the Corporation but not at a centralized level. Not a single request from a collaborator for a health check came to the ears of the interviewees but this does not mean that there has not been any. If such a request had been made to the HR Manager, he will certainly have referred that person to his treating doctor.
#9	No but this is being considered. This comes from several factors. 1) Historical first as this has never been done in the Corporation. Indeed a pre-employment health assessment exists but this has been made compulsory by the insurers; beyond, there is no periodical check-up organized by the Corporation. 2) Cultural as the Corporation wants its collaborators to remain responsible of themselves, expects a relationship with them based on a reciprocal trust, appeals to their good sense... 3) Because of their socio-professional work conditions : the collaborators work in relatively privileged conditions, travel or settle down in countries at limited risk. 4) Because these health checks are rather heavy to organize (time, money). The two following elements must be noted. On one side, no collaborator has ever made a request for passing a periodical check-up. On the other side, there is no feeling of surveillance, in particular on the medical side, within the Corporation; thus that one considers the time spent in visiting a physician, whatever the reason, as working time.
#15	Essentially for historical reasons and because a big part of the personnel is made of physicians who know to take themselves in charge. However, the health checks should be the next step to implement for completing the practices in Duty of Care of the Organization.

The analysis of these results is summarized in the following table:

Table 22 - Analysis of the answers to Question 3: reasons for not making pass health checks.

QUESTION 3 - ANALYSIS Reasons for not organizing health assessments		Corp.		Org.	TOTAL	
		#8	#9	#15	TTL	%
Historical	It has never been done	1	1	1	3	100%
Cultural	We make our collaborators aware of their responsibilities	1	1		2	67%
Socio-professional conditions	Not justified by the destinations and conditions of stay	1	1		2	67%
Constraining	Heavy on the administrative and financial points of view	1	1		2	67%
Staffing composition	Important proportion of doctors in the personnel			1	1	33%
Acceptance by the employees	No request of health assessments by the collaborators	1	1	1	3	100%

Corp. = Corporates - Org. = Organization - TTL = Total - % = Percentage

We shall notice that the answers are the same for both corporations having answered NO to the question to know if they made medical check-ups available to their travelers and expatriates. In every case, we can note that this practice applies not only to this population of collaborators but also to all; it is thus about a global policy. It is moreover completely accepted as the interviewees all declared not to have received any request from a collaborator to pass a periodic health check. It suits in the Swiss' mentality who do not willingly accept an outside intrusion into their private life and who want to give responsibilities to their collaborators. We find some of these traits in the Anglo-Saxon, in particular in the Americans (cf. Lisbeth Claus' benchmark survey on Duty of Care in general[78] who kept 5 medical good practices only out of the one hundred questions she asked).

➢ Question 4

This question will be developed with the analysis of the Activity Reports of Intl.SOS which we shall present farther[79]. However, although the answers do not bring anything, we publish them here, without trying the slightest analysis at this level of our work. We shall just note that the figures of the Activity Reports of Intl. SOS do not always reflect the reality of the number of evacuated or repatriated cases as certain corporations (3) and organizations (2) perform a part of them themselves. This is possible when they have a medical department at their disposal, thus in big entities.

Table 23 - Answers to Question 4.

QUESTION 4 - How many travel related health problems had you last year in your business travelers and/or expatriate population?	
#1	See the Intl.SOS Activity Report. 11 cases with invoice between 2011 and 2013T. There was no evacuation nor repatriation in 2013 but two hospitalizations on the spot with the medical expenses taken in charge 3 times (cost 1 to 5.000 CHF – to be checked). The financial impact had no importance; the Corporation attention focused on taking care of the person on the human plan above all.
#2	See the Intl.SOS Activity Report.
#3	See the Intl.SOS Activity Report. To be noted that the Corporation Medical Department is alerted only for the most difficult cases without a local solution.

78 Cited opus (CLAUS:2011)
79 Chapter 4.2 – Analysis of the loss ratios.

#4	See the Intl.SOS Activity Report.
#5	More than 50 per year. The Intl.SOS Activity Report is very much underestimated as many cases are taken in charge by the doctors on site. Some of the cases are very minor but they require repatriation because of the local work or climate environment, e.g. such as confinement or climate.
#6	See the Intl.SOS Activity Report. It is supposed to be fairly representative of the Corporation assistance loss ratio.
#7	See the Intl.SOS Activity Report. It reflects the reality well, except for the minor pathologies treated on the spot and which number is unknown of anybody.
#8	See the Intl.SOS Activity Report. Their assistance loss ratio is a correct representation of the reality, nor under-, nor over-estimated.
#9	See the Intl.SOS Activity Report. The number of cases is probably slightly under-estimated as some evacuations / repatriations are handled locally, but this concerns a few of them only.
#10	See the Intl.SOS Activity Report.
#11	See the Intl.SOS Activity Report.
#12	See the Intl.SOS Activity Report. This one is very under-estimated as a lot of evacuations are organized and performed at the regional level; these evacuations are often simply due to the fact that the care required are not available locally. They can be globally estimated at probably one per day.
#13	See the Intl.SOS Activity Report. Not a single repatriation occurred.
#14	See the Intl.SOS Activity Report.
#15	See the Intl.SOS Activity Report. It is under-estimated as lot of simple evacuations are organized and performed at the regional level.

➢ Question 5

Here are the answers to Question 5.

Table 24 - Answers to Question 5.

QUESTION 5 - In your corporation/organization, who is/would be in charge (function, department) of setting up health checks for your travelers in mission and/or expatriates?	
#1	Of the Human Resources Department.
#2	Of the Human Resources Department.
#3	Of the Head of the Medical Department.
#4	Of the Occupational Health Department of each of the Group entity, or of the Human Resources Department if not existing.
#5	The first medical examination is arranged by the local agent or the employee himself.
#6	The Head of the Medical and Services. Actually he has a supervision role, gives directions and inputs if needed. However, the implementation is performed at the local level; it is the line manager's responsibility with the help of the local doctor. Note that the Head of the Medical Services is not in charge of controlling what the line managers do.
#7	The branch HR Managers make the decision to implement a system of health checks. Once the decision is made, it is the Corporation Medical Department who determine the protocols to be followed.
#8	Of the Human Resources Department.
#9	Of the Human Resources Department, supported by the Medical and Security Departments.

#10	Of the Head of the Medical Department at the Head Quarters, based on the internal rules of the Organization.
#11	Of the Head of the Medical Department.
#12	Of the Head of the Medical Department at the Head Quarters.
#13	Of the Administrative Direction.
#14	Of the Operations Manager.
#15	Of the Head of the Medical Department.

The compilation of the answers to that question gives the following table:

Table 25 - Analysis of the answers to Question 5.

QUESTION 5 ANALYSIS	CORPORATES											INT'NAL ORGANIZATIONS								GRD TTL	
	#1	#2	#3	#4	#5	#6	#7	#8	#9	TTL	%	#10	#11	#12	#13	#14	#15	TTL	%	TTL	%
Medical Department			1	1	1	1				4	44%	1	1	1			1	4	67%	8	53%
HR Department	1	1					1	1	1	5	56%				1			1	17%	6	40%
Operations Department										0	0%					1		1	17%	1	7%
Security Department										0	0%							0	0%	0	0%
Have a Medical Department	TTL = Total - GRD TTL = Grand Total - % = Percentage																				

Indeed, every time a medical department does not exist within the corporation or the organization, it is the Human resources department that makes the decision. On the other hand, we could expect this decision to be made by the medical department when existing, but this is not always the case. In 2 cases it is the HR department that predominates and makes the decision to set-up check-ups for the travelers in mission and/or the expatriates.

4.1.4. Results and analyses for the Questions 6 to 7: what do you think of the concept of an e-questionnaire determining the people needing to pass a health assessment?

➢ Question 6

The answers to Question 6 are grouped in the following table.

Table 26 - Answers to Question 6.

QUESTION 6 – What do you think of this new concept of e-questionnaire for determining if the collaborator needs to pass a classical health assessment?	
#1	The concept is interesting and in the spirit of the time in view of the business and markets globalization. Indeed, the Corporation has a problem of reactivity for giving a green light for an immediate departure, in particular for an unplanned trip or an extension of trip. The collaborators in question do not have time to inform or prepare themselves correctly. Indeed, there are branches of the Group using Health Appraisal Systems but these ones are not adapted. The interviewee looks for a system that would keep in memory the medical profile entered by the collaborator and that would allow to cross it with the risk of the country of destination before each departure as often as wanted, and making the results available very rapidly. The ideal would be that the questionnaire asks the same questions than the ones of the Corporation health check; the stress and psychological questions should be approached in the questionnaire.
#2	It is a good concept, both for the employee and for the management. However, a few important questions remain unanswered, such as 1- Where are the medical data stored? 2- Where are the medical people reviewing the filled questionnaires? 3- Can someone filling the questionnaire ask a question? Can he/she do it in his mother language? 4- A main foreseen objection is: how can it be decided if I am fit without examining me? Would like the stress

	factor to be included in the questionnaire, for quantification and to determine its origin, domestic or work-related, if feasible.
#3	The Questionnaire can be considered as part of the Duty of Care but partially only, not if organized alone without complementary health checks if required. However, it is again a question of culture. Some people such as unskilled workers will never be able to fill it. If not made compulsory, most of the people will not see a doctor even if recommended at the end of the Questionnaire. Therefore, it would be great for some positions only. The Questionnaire should be physical and psychological as there can be bad reactions to confinement, to stress, etc.
#4	It is not a new concept for the Corporation as they already use it. The psycho-social issues should be part of the Questionnaire (it is in their insurer's questionnaire) as being a frequent cause of expatriation failure. Strong data privacy standards must be respected. Its use shows that it is a good filter for deciding if a health check is necessary or not. However, it is important that an access is given to a physician or an occupational health doctor for solving the possible medical problems raised by the questionnaire.
#5	How to apply it is not obvious. The main anticipated obstacle is that certain collaborators tend to hide or minimize an existing pathology for fear, either of not being employed, or of not obtaining the expatriation they wish. So one of the most striking examples was the number of deteriorations of pre-existing psychiatric problems that had not been declared to the doctors; then the repatriation costs have been at the Corporation expenses. An e-questionnaire will facilitate this phenomenon while a physician will have more chances to obtain the truth. The e-questionnaire could have its place for the prepared departures, not for the immediate ones. In all cases, it looks like a contact with a physician will be more appreciated and more efficient. The best foreseen application would be for the expatriates' families as the Corporation does not propose any check-up to them (nothing obliges the families to pass one, nor to communicate its results). This would allow the families to cross their health profile to the potential destination and to realize if there is a problem or not. It must be noted that, in all cases, should an expatriate collaborator's family member deteriorate even a pre-existing pathology that cannot be treated locally, the Corporation would take in charge the cost of the repatriation.
#6	The concept is interesting but there are all the chances that very few collaborators fill them as much used they are to take themselves in charge. The two main causes for a missed expatriation are the family and the psychological problems. Therefore, the introduction of the psychological, psycho-social or stress problems in the health questionnaire would be very interesting but probably very difficult to do. This would require long and specialized questionnaires, probably very difficult to integrate into the health questionnaire proposed here. Moreover, any person feeling herself put in danger by a question will tend to give the expected answer et will hide the truth. Thus it is probably illusory.
#7	This concept is very interesting for the Corporation as it would integrate well with the in-house culture and would allow to progress in Duty of Care. It could be introduced during the HR or security briefings. It should allow a soft introduction of the health checks. The people would very certainly take the time to fill the e-questionnaire. It could be then imposed to the collaborators before a departure, to the expatriates in particular; they should be made accessible to the families even if it is not possible to impose it to them. The e-questionnaire must be short and easy to fill for it is well accepted. For that reason, it should rather be purely medical without any psycho-social or any other add-on. Before its implementation, it will be necessary to give explanations on how it works, the criteria used, details on security and the data confidentiality (where they are stocked, who has access to them, etc.).
#8	The concept will be interesting if cost-effective and efficient. However, some doubts persist. First, the results should be at the level of the expectations of the management and the users

	(e.g., efficiency and cost saving). The second issue concerns the security of the data (e.g., where are the data stored?), the respect of the medical confidentiality (e.g., who has access to the data), these points requiring a clarification. The third issue is the global implementation. It will be easy to implement the e-questionnaire itself worldwide. It will become a problem when it comes to the organization of the health checks when recommended to have one after the filling of the e-questionnaire. The problem is that not all the Corporation offices have organized health checks so far. However, this becomes a problem of Corporation global policy on health checks and implementation efforts on the local level.
#9	Positive opinion, which goes well beyond the questions of cost and of administrative complications of the classic medical check-ups. The Corporation wishes a chapter which they call "social" to be added so that the collaborators can express a fear of taking the plane, a fear of the infections, etc. This element could be maybe joined into the program LMS (Learning Management System) that the Corporation is setting up. It progresses well at the moment because the management wants a fast implementation of the Corporation compliance policies: code of conduct, code of confidentiality and code of use of the IT systems.
#10	This is a concept being tested by the Organization Head Quarters; it will concern all the periodic check-ups and not only the fitness to travel. For the time being, they wait for the results. For the people on departure, it is an interesting concept if everybody passes it. It will be necessary to couple the occupational health aspect and the degree of medical risk in the country of destination and that it really leads to a health checks if indicated. We should ensure It would be necessary to ensure the efficient functioning of the tool by testing it in double with a classic medical check-up passed at the same time as the e-questionnaire. Of course, the security and the data privacy will have to be guaranteed.
#11	This a positive move. Beyond cost and administrative issues, there is no sense to have all UN personnel having a yearly health check when more than 90% of them return normal. Actually the UN are presently developing the same concept in-house. The UN in NYC are implementing and presently testing a clearance given after a medical questionnaire filled online. The questionnaire is age and gender related. Presently, UN in NYC use both the questionnaire and the health checks. They want to know the “misses” following the clearance given by the questionnaire and compare them to the ones after a health check. An interesting add-on would be to test the mental health in the questionnaire. Though an employee hiding a pathology is at a risk known by him to be fired, some of them do not declare all their pathologies. Acute mental disorders may have catastrophic consequences for everyone, patient first. However, the main problem remains: how to detect them?
#12	It is being implemented gradually in the Organization. It seems particularly interesting for the cases of the frequent travelers for decreasing the number of useless visits to the health provider when there was no change between two visits. It would be necessary to introduce a study of the stress and psycho-social factors. The health provider does it; however, it was noted that the number of detected psycho-social cases varies greatly from a health professional to another. Therefore the results must be interpreted with prudence. That only psycho-social factor is not enough. Beyond the person's physical security, the professional context (travel and work condition at destination) is very important to take into account. Also, the collaborator filling the Questionnaire must have the choice from the very beginning of the questionnaire to see a physician if it is his preference. It is also necessary to guarantee a strict confidentiality of the data of the Questionnaire.
#13	It is an interesting concept, especially for travelers. It allows a better reach and is easier to fill (than a health check). There is a need to consider across the Organization who is at greater risk (age, weight, number of travels per year, security concerns, risk of burn-out, etc.). On top

	of a picture of the person's general health, would like the stress factor to be included in the questionnaire, if feasible. There is no problem of risk behavior except for malaria prevention.
#14	A medical check-up remains important as allowing a dialogue which can result in the detection of certain medical problems very difficult to detect by a simple filled on-line medical questionnaire. So, the estimation of the level of stress, the professional context should be a part of the questionnaire as they are a part of the medical check-up. Indeed, to know where the person upon a departure will go exactly and what he is going to do there, who he is going to see frequently, in which conditions he will work, etc. allows to better understand the global context. It is very difficult to make express in a health questionnaire. The medical department faces still more responsibilities for people who go to the field. These sometimes have little or no access to a quality medicine quickly. The periodic check-ups allow to detect many things. The parent organization is experimenting such a questionnaire on a period of 3 months. It would be necessary to make the test over one year to stand back and make pass, at the same time, the questionnaire and a medical check-up to allow a double-blind comparison and make an assessment of the cases not detected in both cases . On the other hand, there are certainly possible applications; they should be discussed seriously. For example, maybe it could be useful for those who go only in countries without particular risk and who live in high standard hotels. Globally something else than a questionnaire is needed. It is necessary to always have a possible access to a physician. Certainly the costs would be reduced and some time would be gained but these considerations have limits. You should not dehumanize the medicine.
#15	An e-questionnaire is being studied but it would concern all the health checks, including the pre-employment ones, and not only for the travels. An e-questionnaire, complementary to the periodic check-ups or replacing them, for example for the young and healthy populations, could be a help. The main foreseen danger is that an e-questionnaire facilitates the wrong or incomplete declarations for fear to lose a post, a mission or an employment. There is there a big reliability problem for which no solution is foreseen. Other questions come out: is it necessary to oblige people to fill them? At which frequency (to offer the possibility of filling it before every journey would be an important assess)? This e-questionnaire should make the search for psychological, mental and neurological diseases (for example, the orthopedic limitations in a multiple sclerosis), ask for the list of medicines taken (for example to detect possible medical interferences with antimalarial drugs), inquire about psycho-social troubles such as the alcoholism, the behaviors at risk, etc. (but this is very difficult to make; it should include not grouped, indirect, crossed, trivial questions) … the true personality tests are often very long, too long for an e-questionnaire). There is there a research to be made. An important point would be to give the alternative between to choose to fill the e-questionnaire and to see a doctor from the beginning of the questionnaire.

The following table shows the list of the topics approached, that were grouped by main subjects for an easier reading of the answers received.

Table 27 - Analysis of the answers to Question 6.

QUESTION 6 - ANALYSIS Concept of the e-Questionnaire		CORPORATES											INT'NAL ORGANIZATIONS								GRAND TTL	
		#1	#2	#3	#4	#5	#6	#7	#8	#9	TTL	%	#10	#11	#12	#13	#14	#15	TTL	%	TTL	%
GLOBAL OPINION	Positive	1	1		1			1	1	1	6	67%		1		1			2	33%	8	53%
	Reserved			1		1	1				3	33%	1		1		1	1	4	67%	7	47%
	Negative										0	0%							0	0%	0	0%
ADVANTAGES PERCEIVED	Time saved (for the travelers and the administration)	1									1	11%		1		1	1		3	50%	4	27%
	Money saved										0	0%		1			1		2	33%	2	13%
	Win-win Employee and Employer		1								1	11%	§						0	0%	1	7%
	Allows to progress in Duty of Care							1			1	11%							0	0%	1	7%
	Good filter for determining if there is a need for a check-up				1						1	11%							0	0%	1	7%
	Check-ups are useless in 80% of the cases at least										0	0%		1					1	17%	1	7%
	Useful between two check-ups										0	0%			1				1	17%	1	7%
PARTICULAR RESEARCHES WISHED	Stress factor	1	1	1			1				4	44%			1	1		1	3	50%	7	47%
	Psychosocial factors (alcohol, etc.)	1		1	1		1				4	44%			1			1	2	33%	6	40%
	Psychological problems (phobia, etc.)	1		1			1			1	4	44%						1	1	17%	5	33%
	Mental diseases					1					1	11%						1	1	17%	2	13%
	Neurological diseases										0	0%						1	1	17%	1	7%
	Treatments in process										0	0%						1	1	17%	1	7%
RESERVES	Confidentiality				1			1		1	3	33%	1		1				2	33%	5	33%
	Security of data				1			1		1	3	33%	1						1	17%	4	27%
	Bias of wrong declarations						1				1	11%						1	1	17%	2	13%
	Reliability of the results		1								1	11%	1						1	17%	2	13%
	Post-questionnaire check-ups uncertain			1					1		2	22%							0	0%	2	13%
	The less educated will not know how to fill them			1							1	11%							0	0%	1	7%
DEMANDS	Must absolutely be completed by the visit to a physician if a problem is detected				1						1	11%	1					1	2	33%	3	20%
	Access given to the families					1		1			2	22%							0	0%	2	13%
	To give in alternative the choice with a visit to a physician										0	0%			1			1	2	33%	2	13%
	To be able to ask a question		1								1	11%							0	0%	1	7%
	Short and easy to fill							1			1	11%							0	0%	1	7%
	Filled in his own mother tongue		1								1	11%							0	0%	1	7%
	Free access (at any time, from any place)										0	0%						1	1	17%	1	7%
	Results obtained very rapidly			1							1	11%							0	0%	1	7%
	Explanations on how it works							1			1	11%							0	0%	1	7%
	Questions = the same that during the check-up at Medical Department	1									1	11%							0	0%	1	7%

TTL = Total - % = Percentage

We shall not detail the results which we can simply read on this table. We shall note globally that the concept was never rejected and that there are almost as many acceptances (53 %) as hesitancies (47%). We must point out that many of the interviewees were doctors, who favor the human contact.

The proposed searches to be added to the medical questionnaire are interesting as far as they reflect particular fears of the interviewees, very probably due to already (seriously) lived cases. We find there the mental and neurological illnesses, which are rarely declared as soon as we touch the occupational medicine, for fear of not being employed or of losing work or a desired assignment. These patients can be equilibrated in a stable and reassuring context; they decompensate as soon as they lose their usual

references (climate, environment, etc.). We can compare it to the psychological factors, which are kept for oneself for the same reasons. It can be understood easily that knowing these elements before a departure should avoid putting such a person in a situation which she will not be able to master. Beyond the failure of the journey or the stay, it is the future of the person that is at stake. We saw that the journey and a stay abroad can be important factors in stress, all the more if they add to a stress preexisting to the departure. To have an estimation of the stress before the departure would be useful. Two psychosocial factors can have a big importance abroad: alcohol and risk behaviors (not to pay attention to the food or drinking water hygiene, not to protect oneself against the malaria, to have unprotected intercourse, etc.). To measure this risk would almost mean making a study of personality. If we understand well the interest to raise all these subjects, the difficulty is to introduce them into the e-questionnaire without weighing it too much.

➢ Question 7

Here are the answers to Question 7.

Table 28 - Answers to Question 7.

QUESTION 7 - **In case you would use such an e-questionnaire, which kinds of statistics would you be interested in?**	
#1	It is little early to be definitive but statistics on the detected health problems, on the administration of the program (who took advantage of it, how many people had to pass a complete medical check-up, how many had a journey not recommended) and a longitudinal vision on the evolution of the results of the program are probably the most interesting ones. The enrolled people's rate of satisfaction would come much after in the degree of importance. These statistics will have to be synthetic and not too frequent, for example once a year, with the annual Activity Report of Intl. SOS, otherwise they will be little read.
#2	Administratively, the number/percentage of people needing to pass a health check after the questionnaire is filled. Medically, 1) a total anonymous report is fundamental; 2) would like to know if medical statistics results show any topic that would require further investigations and actions at the level of the Corporation, such as heart disease, Diabetes Mellitus, stress… 3) the immunization level of the enrolled.
#3	Beyond the administrative classic ones, medical statistic would be requested to see if a pathology is more frequent than another one, as this would allow to consider a prevention initiative, including in medical wellness.
#4	No particular request on this matter at this level of the discussion.
#5	Would like to have statistics on who uses it and who does not use it. Actually, it is anticipated that very few people would use it probably.
#6	Health profile of the population having used the questionnaire. It mainly concerns cardio-vascular issues (BP, cholesterol) because the expatriates of the Corporation are mostly in the 40-55 age bracket. Beyond 55, cancer becomes a concern to be included. On top of the health status, would like to have the psycho-social details (e.g., stress). To be noted that the psycho-social factors do not belong to the spanning of Duty of Care; the HR department is in charge to take care of them.
#7	The most interesting seems to know the number of departures which the e-questionnaire will have stopped. It is indeed important to determine if it is really what it should be, that is a decision-making support.
#8	The percentage of people who had to pass a medical check-up and the medical reasons, made anonymous.
#9	Classical administrative ones: the number of people who used it, partitioned in example by age group, gender, etc.; the number of people having been advised to pass a health check

	after the filling of the e-questionnaire… Everything that shows that the system works. Medical anonymous statistics.
#10	No particular request at this stage of the discussion except the classic administrative statistics (how many passed it, how many were recommended to pass a classic medical health check, etc.).
#11	The Organization would like to have 4 indicators: 1- How many cases required a traditional health check after filling the questionnaire? 2- Among the people declared fit after the questionnaire, how many developed any medical condition, especially the ones that could have been diagnosed through a classical health check? 3- When a pathology occurs, to know if the patient got a health check or a simple questionnaire. 4- The statistics would be given by age group (especially under and older than 50).
#12	No particular request at this stage of the discussion. The number of cases not having been detected by the Questionnaire would be interesting to know.
#13	The number of people who used it and other classic administrative criteria, etc., the pathologies found. The pathologies not detected by the Questionnaire and which appeared during a business trip.
#14	No special request at this stage; administrative and anonymous medical statistics are a minimum.
#15	Classic administrative statistics: how many people filled the e-questionnaire, to how many of them was it asked to pass a medical check-up, how many of them were finally considered as unfit for a travel or an expatriation. Anonymous medical statistics also.

The analysis of the answers is shown in the following table.

Table 29 - Analysis of the answers to Question 7.

QUESTION 7 - ANALYSIS Statistics for a e-Questionnaire		CORPORATES											INT'NAL ORGANIZATIONS								GRD TTL	
		#1	#2	#3	#4	#5	#6	#7	#8	#9	TTL	%	#10	#11	#12	#13	#14	#15	TTL	%	TTL	%
ADMINISTRATIVE STATISTICS	Number of people to whom a check-up was recommended	1	1	1				1	1	1	6	67%	1	1	1	1	1	1	6	100%	12	80%
	Number of people who filled the e-Questionnaire	1		1		1				1	4	44%	1	1		1	1	1	5	83%	9	60%
	How many declared 1 pathology after a green light by the e-Questionnaire										0	0%		1		1			2	33%	2	13%
	If a pathology occurs, who passed a e-Questionnaire or a check-up?										0	0%		1	1				2	33%	2	13%
MEDICAL STATISTICS	Anonymous statistics		1	1			1		1	1	5	56%				1	1	1	3	50%	8	53%
	Statistics in the perspective of a possible Wellness program		1	1							2	22%							0	0%	2	13%
	Medical reasons for passing a check-up								1		1	11%							0	0%	1	7%
	Immunization degree		1								1	11%							0	0%	1	7%
GENERAL REMARKS	Statistics by segment (age, sex,…)									1	1	11%		1					1	17%	2	13%
	Longitudinal vision	1									1	11%							0	0%	1	7%
	Satisfaction rate of the enrolled	1									1	11%							0	0%	1	7%

TTL = Total - % = Percentage

In summary, beyond the statistics supplied classically (administrative of attendance, by segments, usual medical statistics, etc.), we find the will to show that the e-questionnaire works. We find here the notions of reluctance and caution to the functioning of the e-questionnaire.

Another cited stake is to have medical statistics allowing to determine if a problem could be treated by a prevention campaign of wellness, for example if a large number of obesity cases, of cardiovascular diseases, etc. was found.

4.1.5. Results and analysis for the complementary Questions 8 and 9

➢ Question 8

In Question 8, we wanted to ask if the interviewees would have wished to have complementary products to the medical check-ups to help them to carry out their Duty of Care. Here are the obtained answers.

Table 30 - Answers to Question 8.

QUESTION 8 - Should you decide to use such a medical e-questionnaire, which complementary functionalities would you like to have at your disposal in order to satisfy the Duty of Care requisites?	
#1	The Corporation already uses the Intl.SOS Country Guides and Travel Tracker. For the time being, no further particular wish.
#2	The Corporation already uses the Intl.SOS Country Guides and Travel Tracker.
#3	The Corporation has access among others to the Country Guides of Intl. SOS and uses Travel Tracker of another corporation. The website « www.mesvaccins.ch » is another complementary feature.
#4	As the Corporation does not use such a questionnaire, we think that there is no need to answer the question. The opinions on instruments such as Travel Tracker are very divergent. Personally, the interviewee thinks that the majority of the travelers would consider it as an instrument of violation of the private sphere and would sabotage actively its correct functioning - except in case of an extreme crisis.
#5	Even if an improvement is always possible, the Corporation considers that they already do a lot: worldwide medical insurance, information via their own flyers and intranet (including wellness campaigns), internal meetings with the headquarters doctors, actions on site… They have an internal equivalent to the Intl.SOS Travel Tracker.
#6	They already use the Intl.SOS Country Guides on their website. The Travel Tracker of Intl.SOS is too much perceived like a personnel surveillance, which makes it too much a sensitive issue for being implemented within the Corporation.
#7	The Corporation already uses the Country Guides of Intl. SOS. The principle of the Travel Tracker has not been chosen by the Corporation presently because of the big variety of the modalities of travel ticket reservation (X travel agencies are used in the world) and of the decentralization of the decisions (every branch has the autonomy of decision on this subject). But it is not a negative feeling towards this tool. It is more an effective difficulty of implementation.
#8	Already use the Country Guides of Intl.SOS and a tracer of travelers different from the one of Intl. SOS
#9	The Corporation already uses the Intl.SOS Country Guides and Travel Tracker.
#10	The Country Guides are not used because the briefings and the clearances replace them. No need of a traveler tracer because they can localize quickly their travelers via the medical clearances.
#11	The Organization already uses the Country Guidelines of Intl.SOS via their website and their smartphone Application. However, they were not knowing the Travel Tracker and are very interested in it. The information on medical and security alerts is easy to find from WHO and CDC. It circulates well for the Organization personnel in or coming from their headquarters and offices worldwide. It does not for non-Organization personnel such as experts, especially when these ones travel from a local office to another place. Knowing instantly where such people are would help to fill a gap in their security cover.

#12	The Country Guides are available for the Organization employees. The compulsory procedure of travel authorization request is essential to be able to buy a plane ticket; it allows to make an equivalent of the Travel Tracker of Intl.SOS with the internal IT.
#13	The Country Guides are available for the employees via the Organization intranet. Often use the Travel Tracker of Intl.SOS, considered as very satisfactory at the level of the Organization.
#14	The Corporation already uses the Intl.SOS Country Guides and Travel Tracker. The same tool integrating the medical alerts would be useful.
#15	The internal Country Guides are available for all the employees of the organization. The security department can know very quickly who is where and who is going to go where thanks to the medical and security clearances recorded on the system IT of the Organization.

The analysis of the answers gives this table.

Table 31 - Analysis of the answers to Question 8.

QUESTION 8 - ANALYSIS		CORPORATES											INT'NAL ORGANIZATIONS								GRD TTL	
Complementary services		#1	#2	#3	#4	#5	#6	#7	#8	#9	TTL	%	#10	#11	#12	#13	#14	#15	TTL	%	TTL	%
Country Guides	of Intl.SOS	1	1	1	1		1	1	1	1	8	89%		1	1	1	1		4	67%	**12**	80%
	of other					1					1	11%						1	1	17%	**2**	13%
Travel Tracker	of Intl.SOS	1	1							1	3	33%				1	1		2	33%	**5**	33%
	of other			1		1			1		3	33%			1			1	2	33%	**5**	33%
Medical alert tool											0	0%					1		1	17%	**1**	7%
	TOTAL	2	2	2	1	2	1	1	2	2			0	1	2	2	3	2				

Actually, the question was rarely spontaneously understood so we had to give the examples of the Country Guides and of the Travel Tracker of Intl.SOS. We think that it rather strongly biased the answers which turned around these two products only, without any further feature proposed to us by the interviewees. Thus the question allowed us to review these two products only.

➢ Question 9

This conclusion question brought the following answers.

Table 32 - Answers to Question 9.

QUESTION 9 - Do you have any further comment or remark to add?		EMERGING THEMES
#1	No	
#2	No	
#3	No	
#4	No	
#5	No	
#6	No	
#7	No	
#8	There is always a place for improvement.	**Improvement**
#9	The HR Managers of the Corporation have become very positively sensitive to the medical check-ups. These are difficult to set up at the international level but it is in progress. Indeed, a project of medical check-ups for the African collaborators assigned in another African country than theirs it in progress; this belongs to a global plan (social, salaries, etc.) of mobility at the scale of this continent. It is planned that the same plan is adapted and set up on the other continents afterwards.	**Improvement**

#10	The system in position today works (there was no repatriation last year) but it is perceived as too heavy. A study is in progress to develop the Questionnaire already ready and put it on-line.	**Improvement**
#11	The goal of the Organization is to protect people. It should do the same for its own staff, especially on the health checks issue.	**Improvement**
#12	The system of medical check-ups set up by the Organization is important. It is sometimes the only way to have a medical examination which is not always possible everywhere. It is also the way to give recommendations for a better health.	**Improvement**
#13	No. Globally, the e-questionnaire will be useful if it is cost effective and efficient in medical prevention. Therefore, the Corporation would appreciate, as part of a possible negotiation, to be shown proof that the tool works, via statistics of other clients and the "Return On Prevention" (the savings made).	**Reserve**
#14	It is absolutely true that a Corporation has a Duty of Care towards its employees but it should never become a way to increase a business. In summary, the Corporation thinks that Duty of Care to business travelers and expatriates should not go beyond information, setting clear expectations, facilitation of implementation and access to support, in case something happens.	**Reserve**
#15	Yes, some ones. There is no perfect system. Moreover a valid unique answer for all and everywhere seems illusory. The contact doctor-patient must be favored.	**Reserve**

It is the e-questionnaire which provoked the most comments. It can be because it is a subject of questioning for many interviewees or more simply because it was the last approached subject.

We tried to extract the themes in the remarks of conclusion because, beyond the words themselves, they often joined on a theme. We identified two: the search for an IMPROVEMENT of the system of medical check-ups (theme mentioned 5 times) and the RESERVE to the e-questionnaire (theme mentioned 3 times), already noted. It reflects well enough the feeling we had during the interviews.

4.1.6. Limits of the interviews analysis

The figures we give do not intend to be formally representative of the situation in degree of maturity in Duty of Care in Switzerland. It is about a qualitative study from which the purpose was to extract themes above all; the presented figures can only give a likely trend. Moreover, the sample of the inquiry concerns fifteen interviewed corporations and organizations only. Only a quantitative study would allow us to extract a statistical conclusion from its figures.

During our interviews we noted a curious bias: the case where the interviewee's opinion was not reflecting totally the thought of his corporation. A questioned person spoke to us about it spontaneously and paid attention separately to both points of view, which allowed us to take it into account. On the contrary, it is only after a discussion with a BDM of Intl. SOS that we were able to realize that another corporation did not have the same opinion on all the questions as the interviewee. In fact, it has finally not much importance as long as our analysis of the answers does not aim to be statistical: different opinion can bring a new idea or vision. It is nevertheless an additional reason to remain careful with the figures and frequencies given.

4.2. Analysis of the assistance loss ratios (claims costs)

We had the opportunity to have access at Intl.SOS to the **loss ratios**[80] of the interviewed corporations and organizations. We took advantage of it to study them according to the methodology described above to try to determine if the fact of having a medical check-up system set up was changing the number of Avoidable Cases. After some useful definitions to help understand the tables, we shall compare the results globally and in both groups.

4.2.1. The Concerned Populations

For the record, we call "Concerned Population" all the travelers on mission and the expatriates, including the family which accompanies the latter. The table of the Concerned Populations for which we are going to study the loss ratios was done as explained in the methodology[81]. We added a thirteenth corporation "X", which we could not interview for internal reasons to Intl.SOS; we integrated it into this analysis because its loss ratio is exemplary. It gives the following table.

Table 33 - Concerned Populations of the interviewed corporations and organizations.

CONCERNED POPULATIONS		CORPORATES										INTERNATIONAL ORGANIZATIONS					
		#1	#2	#3	#4	#5	#6	#7	#8	#9	X	#10	#11	#12	#13	#14	#15
Source = Questionnaires of interview	Number of travelers in mission	6 672	11 000	35 000	Not communicated	5	Not communicated	1 000	5 000			3 000	Not communicated	1 200		450	1 400
	Number of travels in mission	> 28 000		40 000		-				171 000		6 000					
	Number of expatriated employees			6 000		8 600				969		5 000			2 248		120
	Percentage of expatriates with family	0%	0%	50%		2%				25%					72%		0%
	Total number of expatriates (*)	240	200	10 500		8 858		1 600	112	1 332		6 875			4 676		0
	Concerned Population (travelers + expatriates)	6 912	11 200	45 500		8 863		2 600	5 112	1 332		9 875		1 200	4 676	450	1 400
Source = Intl.SOS	Number of travelers in mission	6 000	11 000	35 000	7 500		30 500	Unknown	575	31 000	300	6 500	Unknown	1 200	Unknown	350	740
	Number of single expatriates					8 087				959	138						
	Number of expatriates with family					58				1 380	123						
	Total number of expatriates		800	7 000	1 900	8 145	1 875		125	2 339	446	300					680
	Concerned Population (travelers + expatriates)	6 000	11 800	42 000	9 400	8 145	32 375		700	33 339	746	6 800		1 200		350	1 420
	Kept Concerned Population	**6 900**	**11 800**	**45 500**	**9 400**	**8 900**	**32 400**	**2 600**	**700**	**33 350**		**9 800**	**-**	**1 200**	**5 000**	**450**	**3 200**
	TOTALS	Corporates =		151 550		Organizations =			19 650			Global =		171 200			

The word "Not communicated" in the sub-table "Source = Questionnaire of interview" means that the interviewee did not give us the requested figures. In the sub-table « Source = International SOS », the word “Unknown” means that the client did not communicate their number of travelers and expatriates to Intl.SOS.

Both sources give different figures. This is due to several reasons. On their side, Intl.SOS records the number of travelers and expatriates to cover on the figures declared by the clients. These figures are the ones for the previous year. On their side, corporations or organizations gave us figures at the date of the interview. Moreover, if the number of expatriates is generally well known, the travelers one is very difficult to determine as extremely variable in time and therefore little reliable, purely indicative.

The figures of the Concerned Populations that we will keep for this study are in the line before last.

80 For memory and in order to fix the ideas, we will call « loss ratio » the sum of the costs of the assistance cases of an Intl.SOS client.

81 Voir chapitre 3.5.1. Description de la méthode, page 26.

We note an important global Concerned Population of 171 200 people as we held 151 550 travelers in mission and expatriated in 9 corporations and 19 650 in the 5 international organizations for which we were able to obtain figures.

To fix this idea, the following table shows the proportion of the Concerned Population compared with the total staff of the interviewed corporations and organizations. Certain proportions are higher than 100%: it is due to the use of numerous non-staffs in mission and to the families of the expatriates who are not counted in the total staff.

Table 34 - Proportion of the Concerned Population compared with the interviewees' total staffs.

PROPORTION OF TRAVELERS & EXPATRATES		Total staff	Concerned Population (Travelers + Expatriates)	% (Concerned Population / total staffs
CORPORATES	#1	28 000	6 900	25%
	#2	62 000	11 800	19%
	#3	340 000	45 500	13%
	#4	86 000	9 400	11%
	#5	8 700	8 900	102%
	#6	130 000	32 400	25%
	#7	130 000	2 600	2%
	#8	3 500	700	20%
	#9	150 000	33 350	22%
	TOTAL	938 200	151 550	16%
	X	80 000	750	1%

PROPORTION OF TRAVELERS & EXPATRATES		Total staff	Concerned Population (Travelers + Expatriates)	% (Concerned Population / total staffs
ORGANIZATIONS	#10	7 000	9 800	140%
	#11	-	Inconnu	-
	#12	750	1 200	160%
	#13	8 700	5 000	57%
	#14	200	450	225%
	#15	9 000	3 200	36%
	TOTAL	25 650	19 650	77%

4.2.2. Study of the interviewees' assistance loss ratio

Our searches for data ended in the following table, In which the "Medical Cases of Assistance" and the "Avoidable Cases" are understood as explained in the chapter on the methodology[82] (the corporation «X» is not accounted); the costs are in Swiss Francs (CHF).

82 See chapter 3.5.2. Analysis of the interviewed corporates and organizations loss ratios, page 26.

INTERVIEWEES' ASSISTANCE LOSS RATIO						Medical claims per 3 years							Maximal exposure to the sanitary risk of the country**
		Health check program		In-house medical service *	Concerned Population (travelers + expatriates)	Total number of AMC per 3 years	% nb of AMC / Concerned Population per year	Cost of the AMC per 3 years CHF	Avoidable Cases		% number of Avoidable Cases / number of AMC	Cost of the Avoidable Cases by Concerned Person CHF	
		Travelers	Expatriates						Number	Cost CHF			
CORPORATES	#1	No	No	Non	6 900	8	0,04%	58 249	1	1 030	13%	0,15	3
	#2	Voluntary	Voluntary	No	11 800	16	0,05%	97 291	0	0	0%	0	3
	#3	Voluntary	Compulsory	Yes	45 500	39	0,03%	512 024	4	44 630	10%	0,98	5
	#4	Voluntary	Voluntary	Yes	9 400	6	0,02%	50 746	1	2 018	17%	0,21	3
	#5	Acc. to country	Compulsory	Yes	8 900	24	0,09%	1 482 003	5	657 503	21%	73,88	5
	#6	Voluntary	Compulsory	Yes	32 400	13	0,01%	86 998	2	2 897	15%	0,09	3
	#7	Acc. to country	Compulsory	Mixed (1)	2 600	86	1,10%	2 130 833	14	471 811	16%	181,47	5
	#8	No	No	No	700	0	0%	0	0	0	-	0	3
	#9	Acc. To country	Compulsory	Yes	33 350	6	0,01%	188 571	1	119 897	17%	3,60	4
				TOTAL	**151 550**	**198**		**4 606 716**	**28**	1 299 787			
	Average results for the CORPORATES per year					**66,0**	**0,04%**	**1 535 572**	**9,3**	**433 262**	**14%**	**2,86**	
	X	**No**	**No**	**No**	750	10	0,44%	514 521	6	213 706	**60%**	**284,94**	5
ORGANIZATIONS	#10	Compulsory	Compulsory	No	9 800	1	0,00%	29 254	0	0	-	0	5
	#11	Compulsory	Compulsory	Yes	-	-	-	-	0	0	-	-	5
	#12	Compulsory	NA	No (2)	1 200	0	0%	0	0	0	0%	0	5
	#13	Compulsory	Compulsory	Yes	5 000	10	0,07%	462 093	4	165 890	40%	33,18	5
	#14	No	NA	No	450	1	0,07%	389	0	0	-	0	5
	#15	Compulsory	Compulsory	Yes	3 200	10	0,10%	665 044	2	93 391	20%	29,18	**5**
				TOTAL	**19 650**	**22**		**1 156 780**	**6**	**259 281**			
	Average results for the ORGANIZATIONS per year					**7,3**	**0,04%**	**385 593**	**2,0**	**86 427**	**27%**	**4,40**	
GLOBAL Average results (C + O) per year					**171 200**	**73,3**	**0,04%**	**1 921 165**	**11,3**	**519 689**	**15%**	**3,04**	

C + O = Corporates + Organizations - AMC = Assistance Medical Cases - NA = Not Applicable

* Often makes the loss ratio underestimated as the less serious cases are treated internally ** Scale from 1 to 5, see the Intl.SOS Health Map in Appendix 2

(1) It is internal at the Head Quarters, sub-contracted elsewhere - (2) Sub-contracted

Table 35 - Interviewees' assistance loss ratio.

Globally, we note an average cost of the Assistance Medical Cases of CHF 1 921 165 for 73 cases of assistance per year for 14 of the interviewees. That is an average of CHF 137 226 per corporation or organization and per year. By comparing companies to organizations, we find a cost of the Assistance Medical Cases of:

- CHF 170 619 per corporation and per year for a Concerned Population of 151 550 people, that is CHF 1.13 per person and per year.
- CHF 77 119 per organization and per year for a Concerned Population of 18 050 people, that is CHF 3.92 per person and per year, that is a « medical » loss ratio per concerned person 3.5 bigger than the enterprises one.

The analysis of the loss ratios must take into account the « Maximal exposure to the sanitary risk of the country » of destination (the last column on the right of the above table, showing a scale from 1 to 5 as according to the Intl.SOS *Health Map*). We shall notice that all the organizations send collaborators to countries at "extreme" risk. Also, it is necessary to interpret the strong loss ratio of the corporations #3, #5 and #7 by the fact that they expose their travelers and their expatriates to more important health risks than the other companies do.

Yet, some of these organizations have an internal medical department and their loss ratio is known as being often underestimated with regard to the figures of Intl.SOS. We do not know how to explain this difference, except maybe by a larger presence in countries with "extreme" risk according to the Intl.SOS Health Map and by the greater number of staff coming from countries with less access to quality health checks (we saw that the check-ups performed internally were globally functioning well at the Head Quarters only).

We could imagine that the corporations and the organizations who offer preventive health checks to their travelers in mission and to their expatriates, if they are well done, what we assume, should have no Avoidable Case in their claims. This is not the case. Indeed, as seen above, certain corporations or organizations having opted for doing these check-ups really apply it only at the level of the head office. Moreover, the health checks are compulsory for the expatriates only, and still not to all: 2 corporations, that is 13% of the 15 interviewees in our inquiry, do not oblige anyone to have one. Also, some correctly informed people may have not followed the medical recommendations which they received. For example, some cases show that the anti-malarial prophylaxis is not taken by everyone. For all these reasons, it is logical to find Avoidable Cases in the loss ratio of the corporations or organizations having set up a program of medical check-ups.

The global analysis of the Avoidable Cases for the entities not having put in place a system of medical check-ups concerns three cases.

- The corporation #1 has a little global loss ratio and few Avoidable Cases. It is due to the destinations and conditions of stay abroad with a minimum of risks.
- The corporation #8 has no loss ratio. It can be explained by the type of business of this corporation which does not expose its travelers to important risks. Making them travel in excellent conditions or stay in countries / cities with a low sanitary risk only («*Medium* and *High risk* » at the most on the Intl.SOS *Health Map*). An explanation, confirmed by the BDM of Intl.SOS in charge of this corporation, is that this contract is little known by the collaborators of this client and thus little used. This seems to be confirmed by the study of the calls to Intl.SOS: there was only twelve in three years totally and nine of them concerned requests of information about the security in the country of destination.
- The organization #14 sends travelers to countries at risk but not to the bush; their stays are in very good conditions.

It looks like the collaborators of these two corporations and of this organization know how to take care of themselves correctly (efficient medical follow-up with their treating doctor and good follow-up of the prescribed possible treatment and of the recommended prevention).

These three entities travelling in conditions with low risks, they cannot represent those who go in countries with "extreme" risk. That is why, as a demonstration, we included the corporation "X" in this

study even if, as already explained, we were not able to interview them. Indeed, it sends staff to countries at "extreme" sanitary risk and did not set-up preventive medical check-up for its travelers and expatriates. The results of its loss ratio show that it could probably have avoided 60 % of its medical cases if its Concerned Population had passed a medical check-up before their departure. It also has, in our study, the highest cost for the average Avoidable Case per Concerned Person and per year (CHF 284.94). There seems to be therefore a lack of consciousness of the problems incurred at the same time by the corporation in question and by its collaborators who do not take good care of themselves, whatever the reasons (for example, psychological – should a risk behavior be feared? - pretexted lack of time, etc.).

4.2.3. Analysis of the Avoidable Cases

In the loss ratio reports of Intl.SOS, the members are distributed in three types: the travelers on mission, the expatriates and the National Local Workers (NLW). We could have confined to the analysis of the first two categories, because being the subject of this work; we preferred keep NLW. Indeed, if their loss ratio turned out to be important, it would allow us to raise the question of the medical check-ups for them.

We distributed the Avoidable Cases according to these three categories, always by opposing the results of the corporations to those of the organizations. It gave us the following table.

Table 36 - Analysis of the avoidable costs.

ANALYSIS OF THE AVOIDABLE CASES (AC) over 3 years		Travelers in mission				Expatriates				National Local Workers				Total number of AC	Total Cost of the AC CHF
		Number of AC	% of the total number of the AC	Cost of the AC CHF	% of total cost of the AC	Number of AC	% of the total number of the AC	Cost of the AC CHF	% of total cost of the AC	Number of AC	% of the total number of the AC	Cost of the AC CHF	% of total cost of the AC		
CORPORATES	#1	1	100%	1 030	100%	0	0%	0	0%	0	0%	0	0%	1	1 030
	#2	0	- (*)	0	-	0	-	0	-	0	-	0	-	0	0
	#3	0	0%	0	0%	3	75%	24 508	55%	1	25%	20 123	45%	4	44 630
	#4	1	100%	2 018	100%	0	0%	0	0%	0	0%	0	0%	1	2 018
	#5	1	20%	3 212	0,5%	1	20%	315 117	47,9%	3	60%	339 174	51,6%	5	657 503
	#6	1	50%	831	29%	1	50%	2 067	71%	0	0%	0	0%	2	2 897
	#7	0	-	0	-	14	100%	471 811	100%	0	0%	0	0%	14	471 811
	#8	0	-	0	-	0	-	0	-	0	-	0	-	0	0
	#9	0	0%	0	0%	1	100%	119 897	100%	0	0%	0	0%	1	119 897
	Totals	**4**		**7 091**		**20**		**933 399**		**4**		**359 296**		**28**	**1 299 787**
	Res./year	**1,3**	**14%**	**2 364**	**0,5%**	**6,7**	**71%**	**311 133**	**72%**	**1,3**	**14%**	**119 765**	**28%**	**9,3**	**433 262**
	X	0	0%	0	0%	6	100%	213 706	100%	0	0%	0	0%	6	213 706
ORGANIZATIONS	#10	0	-	0	-	0	-	0	-	0	-	0	-	0	0
	#11	0	-	0	-	0	-	0	-	0	-	0	-	0	0
	#12	0	-	0	-	0	-	0	-	0	-	0	-	0	0
	#13	0	0%	0	0%	4	100%	165 890	100%	0	0%	0	0%	4	165 890
	#14	0	-	0	-	0	-	0	-	0	-	0	-	0	0
	#15	0	0%	0	0%	2	100%	93 391	100%	0	0%	0	0%	2	93 391
	Totals	**0**		**0**		**6**		**259 281**		**0**		**0**		**6**	**259 281**
	Res./year	**0,0**	**0%**	**0**	**0%**	**2,0**	**100%**	**86 427**	**100%**	**0,0**	**0%**	**0**	**0%**	**2,0**	**86 427**
C + O	**Res./year**	**1,3**	**12%**	**2 364**	**0%**	**8,7**	**76%**	**397 560**	**76%**	**1,3**	**12%**	**119 765**	**23%**	**11,3**	**519 689**

Res./year = Results per year C + O = Corporates + Organizations (*) Division by 0. CHF = Swiss Francs

The results of this table will be taken again and commented later for the travelers and the expatriates but already, concerning the National Local Workers, we can notice that:

- we find Avoidable Cases in corporations only; this is probably due to the fact that the international organizations do not make any distinction between their collaborators on the basis of the country of origin as made by certain corporations and which brought them to create the status of NLW.
- The costs of these Avoidable Cases reach in average CHF119 765 CHF per year over the period 2011 to 2013, representing 28 % of the total costs of the Avoidable Cases in the corporations. This is not unimportant. We shall talk again of it in the chapter of synthesis.

We then took the global results for the corporations and the organizations separately and reported them to the Concerned Populations. As not having the number of National Local Workers, we were not able to take them into account. We chose to give the figures for 1 000 people of the Concerned Population because the obtained figures were low and to facilitate the comparison with the same table made for the costs hereafter (Table 38). We find the following results.

Table 37 - Global analysis of the number and costs of the Avoidable Cases.

NUMBRE OF THE AVOIDABLE CASES / year	CORPORATES		ORGANIZATIONS	
Total Concerned Population	**151 550**		**19 650**	
	Global number	**Number of cases for 1 000 people of Concerned Population**	**Global number**	**Number of cases for 1 000 people of Concerned Population**
Travelers in mission	1,3	0,009	1 030,1	6,797
Expatriates	6,7	0,044	2,0	0,102
Total	**8,0**	**0,053**	**1 032,1**	**52,522**

We can make the following remarks.

- The number of Avoidable Cases for 1 000 people of the total Concerned Population is very low in every case;
- The total number of Avoidable Cases for 1 000 people of the Concerned Population for the organizations is twice the size than the one for the corporations (0,102 for 0,053 respectively); it can correspond to the obligation to pass a check-up much more frequently in the organizations than in the Swiss corporations.
- This number is zero for the travelers in mission in organizations; the explanation proposed is the same as above.
- In the corporations, the number of the Avoidable Cases for 1 000 people of the Concerned Population in the expatriates is 5 times more than for the travelers on mission; in the organizations it is also much higher. It can be explained simply by the fact that the duration of the travelers' stays is significantly shorter than the expatriates' one.

Then we established the same table for the costs engendered by the Avoidable Cases. It gives the following table:

Table 38 - Global analysis of the costs of the Avoidable Cases.

COSTS OF THE AVOIDABLE CASES / year (CHF)	CORPORATES		ORGANIZATIONS	
Total Concerned Population	**151 550**		**19 650**	
	Global cost	**Cost for 1 000 people of the Concerned Population**	**Global cost**	**Cost for 1 000 people of the Concerned Population**
Travelers in mission	2 364	16	0	0
Expatriates	311 133	2 053	86 427	4 398
Total	**313 497**	**2 069**	**86 427**	**4 398**

We can note the following elements.

- The cost of the Avoidable Cases for the expatriates, still given for 1 000 people of the total Concerned Population, is just over twice the amount for the organizations than for the corporations. We do not know how to explain it.
- The cost of the Avoidable Cases for the travelers in mission of the corporations is very low: CHF 16 for 1 000 people of the total Concerned Population. It is certainly due to the brevity of their stay compared with that of the expatriates, which decreases the risk of falling ill during their stay.

4.2.4. Limits of the study of the assistance loss ratios

The small number of studied corporations and organizations does not allow us to be conclusive on a statistical point of view.

The interviewed corporations and organizations are big with numerous travelers on mission and expatriates. The small and medium-sized enterprises (SME), which most of the time have a smaller number of staff and finances, are not represented in this study. Thus the conclusions of this study which we shall make cannot be generalized to all types of corporations represented in Switzerland.

Many of these corporations are international. The figures we received reflect their global Concerned Population most of the time. Indeed, the assistance contracts are generally signed with the Head Quarters of the Group. Thus the loss ratio widely exceeds the population of the Swiss corporation/branch. Unfortunately it is not possible to discern the population of the Swiss employees from the one of the non-Swiss. Thus the conclusions will overflow the Swiss borders, without us being able to know of how much.

As already seen, the number of the travelers on mission is extremely variable with time within the same corporation or organization; the quoted figures are thus approximate. So, it is necessary to approach them with great caution. Therefore, the results depending on the number of the Concerned Population are to be taken at an indicative level only.

Certain corporations and organizations have an under-estimated assistance loss ratio at Intl. SOS compared to the reality because they are able to handle a part of the cases themselves, by the way without any mean to know their proportion. So, the figures that we give are indicative of a trend only.

Another limit is linked to the determination of the Avoidable Cases because it is about a medical analysis with a certain number of subjective points, even if we tried to reduce them as much as possible by crossing the opinions of two doctors.

———

Now we pass to the synthesis of our results and analyses.

5. SYNTHESIS AND CONCLUSIONS

After the presentation of the synthesis of our results and analyses which will result in a series of recommendations, we shall make a proposition of tools to make the Duty of Care more tangible.

5.1. Synthesis and recommendations

We are going to take back the three chapters of the questionnaires and interviews and add a synthesis for the assistance loss ratio.

5.1.1. For the Duty of Care

First we shall present a summary table of the various practices in Duty of Care to the travelers on mission and the expatriates cited by the interviewed corporations and organizations.

Table 39 - List of the practices in Duty of Care cited by the interviewees.

DUTY OF INFORMATION	By the Medical or Security or HR department By Country-Guides By intranet By briefings By an e-learning By specialists By the Travel Agency
DUTY OF PREVENTION	Medical insurance provided * Medical assistance provided * In-house medical department Health checks provided * Immunizations provided * Use of medical alerts Hot Line, Cell crisis Card with the emergency numbers Emergency kit provided Prophylactic drugs provided
DUTY OF MONITORING	Information received Certificate of fitness, clearance, etc. Immunizations recorded Localization during a travel Adequate insurance
LIST OF THE PRATICES IN MEDICAL DUTY OF CARE CITED BY THE INTERVIEWEES	
* to all the Concerned Population (travelers, expatriates and their family, non-staffs, etc.)	
DUTY OF INTER-VENTION	Total travel ban possible TRAVEL TRACKER or equivalent

Then we shall make propositions for every sub-Duty of Care.

➢ For the duty of information

In all cases, it is imperative to advise the collaborator for his health and security. We saw that there were several ways to do this: by the medical or security department, during the health checks or the briefings, by Country-Guides, by the intranet of the corporation, by the travel agency, by cards with emergency numbers … and other ones may exist!

The source of the information must be recognized and revealed; it is a way to make it more acceptable.

The content must be adapted to the situation.

➢ For the duty of prevention

The best solution, and the most expensive one, it is true, is to cover every traveler, expatriate and his accompanying family with an adequate insurance for the destination, which often means almost worldwide. It is accepted for the expatriated collaborators but not always for their family. Even if the family stays under the responsibility of the expatriate, that of the employer also remains committed in our opinion; indeed, the employer will have to find a solution to a lack of medical expenses cover, should it arise. It can end by a medical repatriation. It can also result in the anticipated return of the

expatriated collaborator with the direct and indirect costs which we saw above, not mentioning the potential disastrous consequences for the family. We think that the National Local Workers must be also covered by an insurance adapted to the risks incurred and to the visited countries.

On their side, the travelers on mission remain under the social cover of their country of origin. For those based in Switzerland, the health coverage is the employee's responsibility. For that reason several companies leave the responsibility to their traveling collaborator to take an insurance covering them in travel. If the employer persists in this choice, it is imperative that he verifies the adequate cover of his employee abroad before his departure and that he keeps a copy of it (duty of monitoring). Non-staff should be treated the same way than the actual staff.

Another solution would be to provide an additional group insurance which covers this situation while leaving the weight of the health insurance in Switzerland and on the collaborator. They have a great advantage not to have to be negotiated individually nor to have to be permanently controlled (no waste of time and thus of money in controlling, no risk of forgetting neither on the side of the employee, nor on the employer's one).

Every traveler or expatriate, whatever his status is (staff, non-staff, National Local Worker, expatriate's family) must be covered by a medical assistance (please note that it is the case here because the population-target of the survey was the clients of Intl. SOS - Geneva). Overriding it would risk to be very expensive to the employer.

We shall develop farther the need to make sure of the medical fitness to travel or to be expatriated, thus to pass a medical check.

To have an internal medical department is a plus but it is not essential. This service can be subcontracted, either to health centers, or to an assistance corporation. The essential is to be able to do medical check-ups by doctors well aware of the risks of the journeys, having a knowledge of the risks in relation to the country of destination and, as the case may be (in the petroleum industry or of the construction for example), the risks linked to occupational health.

All the immunization should be up-to-date. A control, for example in the form of a copy of the vaccination certificate, is desirable for the legal side of the control. An on-line service such as « mesvaccins.ch »[83] can be interesting, particularly when there is no in-house medical department. Whatever is the chosen method, including for an internal or external medical department, it is necessary that booster reminders can be sent directly to the person. The case of those who refuse an immunization: it will have to be clear that the responsibility of the consequences of such a choice falls to them (It can be dramatic for the children not inoculated).

To propose first-aid kits and preventive medicine adapted to the destination is a plus, which prevents the employer from checking that the collaborators upon a departure equipped themselves with them.

➢ For the duty of monitoring

This part is the most difficult to make acceptable because it leaves an element of doubt over the reasons for the control: protection or surveillance? It is nevertheless fundamental for the employer on the legal side, in case of complaint from a sick or injured employee abroad who would like to shift responsibility for this to his employer. In order to not expose themselves, it is necessary that the employer can show *a posteriori* that took place, all of which was reasonable in Duty of care.

So, for the information of the collaborators upon a departure, we recommend for example that the employee signs a document (on paper or electronic) in which he acknowledges that he was well informed of the risks incurred, that he was able to ask all of the questions he wanted to on this subject and that he measured the consequences of the acceptance of the travel. Indeed, to send information by mail will not be enough; the collaborator must have the possibility of inquiring further, whether it is internally or externally (the assistance companies provide this service when it is not available internally).

83 See Table 13, Corporate #3.

However, we do not believe that this procedure of waiver fully exempts an employer. As a priority, the employer will have to take care of the person whom he commissioned abroad in the best possible conditions and do so until his return home (this justifies widely a contract of medical assistance if there is no internal medical means to realize a repatriation in good conditions) and the *restitutio ad integrum* of the medical problem, if it is possible. On the other hand, the employer will be able to rely on that text to sanction the employee who would not have read or not followed the recommendations, if he can prove the fault.

We know that many Swiss corporations do not agree with us, but we also recommend that the collaborator, whatever his status (including the family accompanying an expatriate), shows a medical fitness certificate that is then registered in his personal file. It is the only way to prove *a posteriori* that the medical fitness to travel or to be expatriated was verified. Indeed, these people will have been sent abroad upon the request of a corporation or of an organization and there will always be a link of responsibility concerning them: the employer's responsibility will always be impacted one way or another in case of a health problem abroad of one of his employees.

Once again, the explanation and the persuasion are probably the best ways to put these controls in place.

➢ For the duty of intervention

It is the last protection of the traveler on mission and of the expatriate. We do not understand the reluctance of some people to ban (it is the word which seems to irritate but which has the merit to be strong and clear) travel when it is acknowledged as too dangerous for the collaborator, whether it is because of his personal health or of the epidemiological risk in the country of destination. When the danger is known, to not ban the travel is to expose voluntarily a subordinate to a known danger. Not to worry about the health of the collaborators or the dangers on-the-spot, is to not want to know. In both cases, it has all the likelihoods to condemn the corporation or the organization in case of legal complaint. The sanction will then be probably double, civil and penal.

It should not be forgotten that this duty does not stop with the professional part of the journey. Even during the relaxation and rest part of the stay, the employer's liability can be committed, as we saw in the jurisprudence of certain countries[84].

➢ For the Duty of Loyalty

It will be good to remind the collaborator of his Duty of Loyalty to his employer: it is the counter-part of the Duty of Care. Indeed, all the imaginable information and preventions will be of no use if the employee does not act in a normal way to protect him/herself. To override this duty could expose him to be accused of serious fault.

This concerns especially the psychosocial risks, in particular the risk behaviors. The consequences of these excesses can tarnish his work and his employer. For example, to refuse to take an antimalarial prophylaxis increases seriously the risk of malaria, in particular in its cerebral form, which can be fatal. Its treatment often requires an emergency medical evacuation by air ambulance if the country in which the patient stays is not adequately medically equipped. The mission or the expatriation is then aborted with the important economic impacts seen above[85]. It would be interesting to be able to detect the people at risk but it is very difficult. We can better trust medical personnel than an e-questionnaire, until proof of the contrary. It is thus better to advise the collaborators tactfully whose psychological profile is suggestive.

84 See Appendix 1

85 See Chapter 2.6.4., page 17.

➢ Can the choice be left to the employee regarding the practice of the Duty of Care?

We think that a collaborator should have no choice when involving the responsibility of the corporation at whatever level it might be; In Duty of Care, it is practically always the case. To leave the choice to follow or not follow a strong recommendation, is to accept that the collaborator chooses to expose himself to a risk (that in principle he knows if the duty of information was well performed) and to put the corporation or the organization in a difficult situation if a problem arises. Indeed, in that case the employer will have to manage care, of return, etc. It is also possible that the employee decides to sue his employer with all the consequences in terms of finances, of image internally as well as externally, etc. which could then be very expensive to the latter.

In a general way, a discussion, a possible explanation of the consequences of the choice, a persuasion of the collaborator, even ultimately a constraining decision are many preventive arms against a bad choice for all.

➢ The limits of Duty of Care

We saw that a number of corporations and organizations did not wish to impose measures which could be perceived as an intrusion, even a violation of the private domain. Up to what point can we go while still respecting it? The boundary is very vague, first of all because of the diversity of the human mentalities: it will be necessary to urge the assisted to take responsibilities and to calm the irresponsible. The protection of the private domain links to the debate on rights and duties. The Duty of Loyalty takes here all its logic: you should not expose yourself senselessly and it is necessary to protect the interests of your employer, both going hand in hand. In fact all this is a matter of common sense. Above all, it is a question of explaining the reasons, persuading the unwilling of the good reasons of the adopted measures and, ultimately, promulgating rules.

Another question which creates debate is: must the medical Duty of Care also cover the periods of leisure activities / rest abroad? For us, the answer is yes. Indeed, it is in the evening, thus after the work, that the Anopheles (mosquitoes transmitting malaria) bite, there is no water or food quality difference between night and day, the hospitals do not change their standards during the leisure activities, etc. The risks of health do not disappear after work.

The third question concerns the number of practices in Duty of Care to be set up. It will never be possible to protect somebody 100% in all the conceivable circumstances. Furthermore, all these practices have a cost and could be taken too far. The principle of proportionality takes all its sense in this question. It is up to every corporation and organization to determine its strategy in Duty of Care and to select the list of reasonable practices to set up. This changes according to the structural risks of health in the countries of destination (one can use the Intl.SOS *Health Map*), of the possible endemic diseases, social and occupational conditions (what will be the collaborator's work? in which conditions? in what type of accommodation will he be? Etc.). It is necessary to have access to medical alerts of quality. All these matters can be dealt with internally or by subcontracting them to its medical assistance corporation.

5.1.2. The health checks

We saw that certain corporations did not make the medical check-ups compulsory to their travelers and expatriates; they do so even less for the families accompanying the expatriates abroad. Others do nothing on this matter, except recommending this to be followed up by his family doctor, and this for four main reasons that we saw already (historic, cultural, the good socio-professional conditions abroad, the constraining aspect of these check-ups). We think that it is a mistake to let the choice fall to the collaborators to have a medical check-up.

Even if intellectually, most of the employees will accept the fact that travel will go well only if he is medically fit for that journey and staying in a country in conditions of climate and of life sometimes very different from those of his country of origin, it is true that certain collaborators will take refuge

behind excuses (« not time », « I am doing well, why do I need to see a doctor », etc.) for not undergoing a health check. Furthermore, we saw that the chances to develop pathology abroad increases as soon as there is a past medical history[86]. Indeed, we expose ourselves abroad to destabilizing factors such as the living conditions (climate, etc.) which change, the jet lag, the added stress, etc.

Fitness for the journey and for the stay abroad is thus required. The only way to determine it is to be regularly monitored on the medical side. It is necessary that the examining physician takes into account the health status of course, but also the way of traveling, the conditions of stay, the risk linked to the country of destination (the endemic diseases, the means of prevention, the required immunizations, etc.), all issues for which the family doctor has high chances to be neither prepared, nor qualified. We understand why the selection of the examining doctors is important. On the other hand, that these examinations are made in-house or subcontracted matters little. The frequency of the check-ups is to be adapted to the age, to the possible particular status (a pregnancy, a new or temporary pathology such as a bone fracture for example) and to the past medical histories. The medical check-ups pre-departure must neither be monolithic in their contents. Some recommend that they are minimalist, serving as a reference in case of a new pathology. In all cases, for a few years we have noted a decrease of the number of tests proposed during these assessments: it makes no sense to multiply them without any symptom, if it is not for increasing their cost. Therefore, they must be adapted to the situation.

5.1.3. Positioning of the interviewees about the e-Questionnaire

There are two levels of application of the e-questionnaire possibly complemented by a medical check-up. The first one consists in conceiving it as being a part of a periodic health check, without relation with a travel or an expatriation. It is what is being set up at the level of the United Nations and of certain corporations' insurers. The travel risks are not taken into account in this kind of application of the e-questionnaire. The second level is to do the same thing with the aim of checking the fitness to a travel or an expatriation, this being done by crossing a medical profile with the dangers of a destination. It is this type of e-Questionnaire represented by the Intl.SOS MedFit® that we shall study. It must be noted that the medical profile established in the second case will be only travel and stay abroad oriented; only a classic medical check-up can have an occupational health orientation.

➢ The advantages

We saw that medical check-ups were useless in more than 80 % of the cases[87]. The health questionnaire takes all its meaning there. The advantages are many, in particular pecuniary and administrative; indeed they are cheaper and much less constraining than medical check-ups. We heard that the e-questionnaire in the e-MedFit® way should be successful because this is "in vogue". It will be considered by the young users as one more internet application, those being part of their daily life. Others will be more reluctant, preferring by habit or by fear contact with a doctor rather than with a machine.

If medical check-ups are recommended, we saw that their frequency can vary. Then the role of detection of the e-questionnaire takes all its sense between two medical check-ups which could be then spaced out more than initially planned. It would also be very interesting to be authorized to have access to it as often as wanted before travel. It does not take much time to fill it in and this can be done anywhere: there will not be any more possible excuses for lack of time. Everybody involved should have access to it: the family of the expatriate, the non-staff and National Local Workers sent in mission out of their country of residence. Indeed, these three populations are too often left aside although they require the same Duty of Care from the employer. The financial and legal risks are the same than with the direct collaborators.

86 Cited opus (WIETEN:2012)
87 Cited opus (DRUCKMAN:2011)

➢ The requests for particular searches

The requests, made by many interviewees, for particular searches to be integrated into the e-questionnaire detailed above[88] face, according to us, a significant obstacle.

Indeed, how to detect and measure stress and psychosocial risks and, more difficult still, how to undergo a personality test? It is done using often long and sometimes complicated questionnaires. Yet, complete questionnaires in the desired domains would go against the speed and the ease of execution of the e-questionnaire which are necessary to ensure its success. However, it would be interesting to work on this question with specialists of these questionnaires to determine if some crossed questions made anonymous in the middle of the other questions would allow us to make an even unrefined screening. Indeed, the goal would be to obtain a simple alarm which would activate a visit to a doctor or a psychologist in charge then to go farther into the issue.

➢ The reserves made by the interviewees.

It will be necessary to reassure the managers on certain still obscure points of such a system because questions will arise. In particular we anticipate the following ones, raised by certain interviewees.

How to avoid the bias of the e-questionnaire which has been deliberately badly filled out? Indeed, a collaborator concerned by a question which makes him afraid to lose his job will tend to fill the questionnaire falsely. Even if it is not easy to admit certain diseases to a doctor, this one has the advantage to possibly be able to detect this embarrassment which will push him to investigate the question further while reassuring his "patient" on the consequences on his job. Certain employers react to this potential problem by a contractual clause considering a false medical declaration as a cause of dismissal. It is not sure that such a waiver is the panacea but rather a way to make the candidate think of the possible consequences in case of deliberately falsified health. Above all, it will be necessary to persuade the collaborator that this e-questionnaire, just like the medical check-up which can follow, is not a mean of selection but, before all, to avoid putting him in a situation that he could not control, with all the negative consequences which could arise for him, his employer and his work.

Where is the data stored, in which country? Some will hesitate to accept that the data of their employees are in an unidentified place or in a country where the legislation does not allow them to intervene easily in case of dispute. It is certain that the preference will go to a hosting of the data in Switzerland.

What guarantees the privacy of the data entered on-line? The process of access to the stored information and the systems of identification will have to reassure and be explained to all the users.

Who reviews the data when the machine issues an alert? The transparency is necessary here because it is difficult to accept that only a machine decides on someone's medical issue. The professional qualification of the person who decides *in fine* on the fitness to travel must be given and explained. For example, it is not usual in Switzerland that such a responsibility is left with a paramedic or with a nurse. Also, to reassure the employers as the employees enlisted in the system, we recommend showing names, portraits and qualifications of the healthcare professionals who will have access to the medical data and who will issue the final opinion.

What guarantees that the machine does not make a mistake? It will be necessary to ensure the quality of the system. For example, it will be necessary to control the "failed" cases by the questionnaire. At first, it will allow us to correct the system so that it does not make the same mistake again. Beyond, it is recommended to publish these statistics of "failures", as asked by certain interviewees, and the

88 See Table 29 – Analysis of the answers to Question 7, page 56.

corrections made, at least client by client, to show them the follow-up of the cases and the measures of improvement which are made.

To be noted that an interviewed corporation is afraid that these e-questionnaires cannot be filled by the least qualified collaborators. It will be necessary to test it because, if confirmed, it would restrict the possible range of action of this e-questionnaire.

➢ Must the e-Questionnaires be imposed?

The question arises again to decide if it would be necessary to impose them. In a concern of coherence, we think that the answer is yes, especially if the classic physical examinations are already compulsory and spaced out more than previously. Indeed, much less constraining for the collaborators than the check-ups, they push them to auto-control themselves in their own interest and thus to take charge of themselves. On his side, the employer will get back the electronic confirmation of the fitness to travel, confirming that he performed that part of his Duty of Care. In case of no internal policy in the corporation or the organization on this issue, it is a good way of introducing one, by making them compulsory before any departure. This was also the opinion of an interviewee.

5.1.4. Synthesis of the assistance loss ratio

The analysis of the interviewees' loss ratio showed that it was necessary to interpret it with caution at the level of the figures and according to the sector, of the social-professional context and the degree of risk linked to the sanitary status of the country of destination. So a banker who frequents capitals of well developed countries only and who stays in hotels of high category will be much less exposed than an oil and gas worker or than a delegate of an UN agency who goes to the countryside in a developing country. We find here again the principle of proportionality. Health checks are indispensable in the second case while they could be debated in the first one. It is also in this second case that the e-questionnaire can raise a problem because certain less qualified collaborators could not know how to complete it.

We noted that it is very difficult to eradicate the Avoidable Cases. Nonetheless we can act on some axes, which could be for example,

- to standardize the quality of the health checks wherever they are passed worldwide: it requires a huge network of occupation health or health check providers to be put in place, to coordinate and to control. It can be done internally, if affordable or be subcontracted, for example to its medical assistance corporation.
- to make the health checks accessible to all: LNW, families, non-staffs.
- to continue the provision of information to the candidates prior to a departure, even if they are frequent travelers or "old" expatriates; for example, it is necessary to persuade reluctant people to take their antimalarial prophylaxis (there are several methods, to discuss possibly with a doctor qualified in travel medicine).

5.2. « Tangibilization[89] » of the Duty of Care

Given that we can consider the Duty of Care as a service of the corporation or of the organization to its collaborators; it has to meet the criteria of Intangibility, Heterogeneity, Instantaneity and Perishability (IHIP), that we develop in the following table.

Table 40 - IHIP criteria.

Good	Service	Consequences
Intangibility		
Tangible	Intangible	The Duty of Care is not visible, nor palpable.
Heterogeneity		
Standardized	Heterogeneous	The result depends on external factors, particularly in the country of destination. Exemples mentioned in this study: time zone difference (jet lag), unpredictable epidemic, traffic accident, etc.
Instantaneity		
Production is separated from consumption	Production and consumption are simultaneous	The result depends a lot on the collaborator's cooperation (cf. see his Duty of Loyalty in counterpart of his employer's Duty of Care). Some examples mentioned in this study: not to follow his employer's recommendations, to refuse to update his own immunizations or to follow the antimalarial prophylaxis prescribed, to have a risk behavior ... All these elements may influence greatly the result of the practices in Duty of Care in place. The Duty of Care applies to individuals, each one having his own particularities (for example, of health) to which it is necessary to adapt.
Perishability		
Not perishable	Perishable	The Duty of Care is a permanent effort recommended indefinitely before each departure.

Sources: Adapted from « Gestion des Opérations de Service », MIS 2013 - Emmanuel Fragnère's course at Haute Ecole de Gestion of Geneva,©2012 Laboratory of Service Design (LSD).

It is easy to verify by oneself that the Duty of Care answers well to these four criteria of definition and thus can be assimilated to a service.

5.2.1. SWOT analysis

We shall begin by proposing a brief SWOT analysis. It is necessary to understand that we are talking here about an internal service to the corporation or to the organization: The employer delivers the service to his traveler or expatriate collaborators. So, we shall have in the top of the quadrant elements which are a positive (on the left) or negative (on the right) element for the employer and at the bottom of the quadrant the possible reactions of the collaborators (on the right) that the good practices of Duty of Care (on the left) are going to counter.

89 We will use this neologism to mean "the way to make tangible".

Table 41 - SWOT analysis of the Duty of Care.

STRENGTH	WEAKNESSES
Positive image of the corporation externally Improved trust, motivation of the collaborators, with gains of productivity of the travelers and expatriates (by less stress) Small turn-over in particular of the expatriates Return On Prevention (ROP)	Health structural risks linked to the country of destination Endemic diseases at destination Risks of accident, death Cost of the diseases or accidents at destination Excess of trust of the employer towards his collaborators Lack of communication Cost of the practices implemented
OPPORTUNITIES	**THREATS**
Practices of information **Practices of prevention** • Health checks, e-questionnaires • International medical insurance for all the Concerned Population • Medical Assistance for everyone **Practices of monitoring** **Practices of intervention**	Lack of knowledge of the risks Medical unfitness to a travel or an expatriation False medical declaration Immunizations not updated Excess of self-trust of the collaborator, which can induce risk behaviors

5.2.2. Global results of the answers to Question 1 of the interviews

However, it is interesting at several levels (to be able to show, compare, etc.) to be able to make a service tangible. That is what we are going to do now.

Already the various tables of analysis of the application of Duty of Care are a form of tangibility but we can go further.

For that, we will begin by compiling the answers to the four sub-duties of care by corporation (in blue) and by international organization (in brown). The following table shows the number of practices cited by interviewee by sub-duty of care and the total of the practices in Duty of Care by interviewee.

Table 42 - Compilation of the answers to Question 1.

COMPILATION OF THE ANSWERS TO QUESTION 1	CORPORATES									INTERNATIONAL ORGANIZATIONS					
	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15
Information	3	6	4	4	3	4	4	5	5	3	5	4	3	6	3
Prevention	4	10	10	9	12	10	12	7	9	12	13	10	11	11	11
Monitoring	4	5	5	1	6	2	6	4	3	8	6	6	7	7	7
Intervention	2	2	2	1	2	1	1	2	2	2	2	1	1	2	2
TOTAL = Number of pratices in Duty of Care	**13**	**23**	**21**	**15**	**23**	**17**	**23**	**18**	**19**	**25**	**26**	**21**	**22**	**26**	**23**

5.2.3. Panorama of the application of the Duty of Care

Taking back the results of Question 1 of the interviews, it is possible to make a panorama of the application of the Duty of Care in Switzerland for the interviewed nine corporations and six international organizations.

In the following table, the number of practices in Duty of Care is equal to the sum of the practices of the four sub-duties of care (see last line of Table 42). The « maximal risk in the country of destination » is the one in the country medically the most at risk frequented by the entity, according to the five degrees of the Intl.SOS *Health Map*.

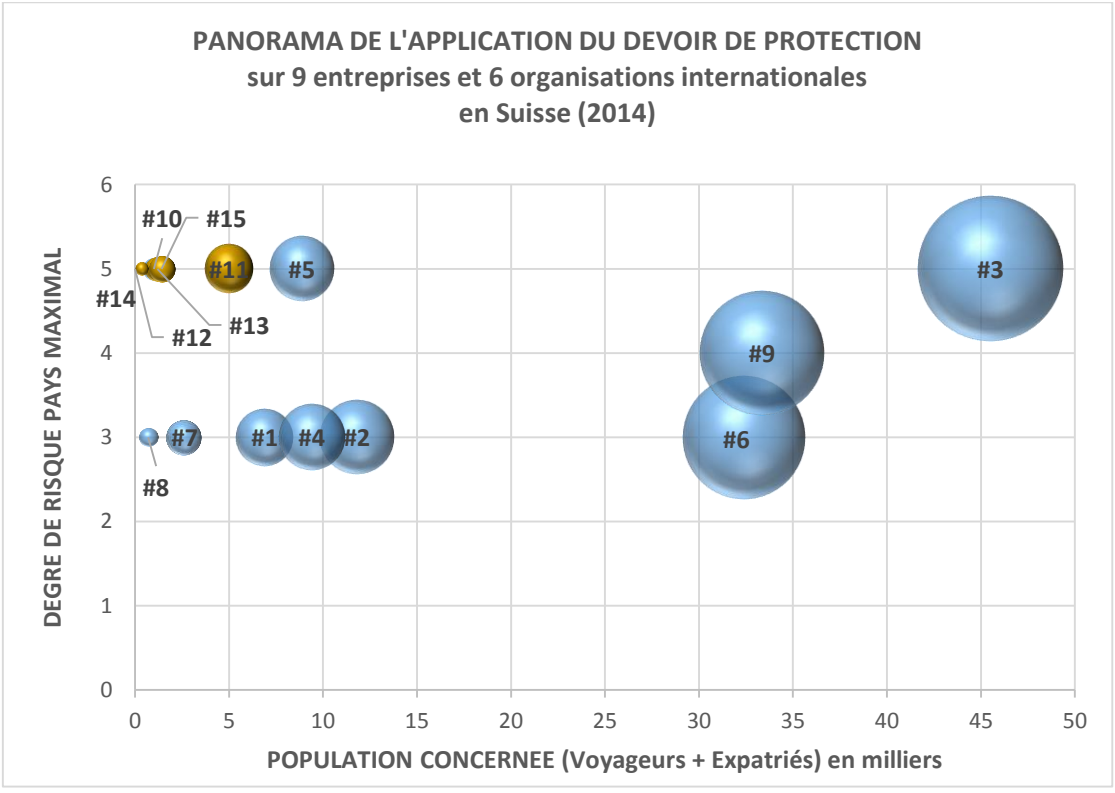
Table 43 - Panorama.

TABLE PANORAMA	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15
Number of pratices in Duty of Care	13	23	21	15	23	17	23	18	19	25	26	21	22	26	23
Maximal risk in the country of destination	3	3	5	3	5	3	3	3	4	5	5	5	5	5	5
Concerned Population (T+E) in thousands	6,9	11,8	45,5	9,4	8,9	32,4	2,6	0,7	33,4	9,8	5,0	*	1,2	0,5	3,2

* Unknown

Finally we use the three lines of data of the Table 43 - Panorama to extract a graph from it in which the X axis represents the Concerned Population, that is the sum of the travelers and the expatriates, and the Y axis the maximal risk in the country of destination. A location in this graph gives the beginning of a risk representation because crossing a risk with the number of the exposed population. So a corporation or an organization exposure will increase when the sphere representing it goes more at the top and to the right on the graph. Every sphere has a surface proportional to the number of practices in Duty of Care used by the entity in question. The color code remains the same: blue for corporations and brown for the international organizations.

Graph 1 - Panorama of the application of the Duty of Care.



We note an increase in the number of practices in Duty of Care in place from the left to the right, thus in parallel with the number of Concerned Population; however, it is difficult to conclude if there is a real link between both elements. The entities decompose into two groups. The first one is formed by three corporations which are situated most at the top and to the right on the graph, that is in the zone the most at risk due to the type of frequented country and the high number of the Concerned

Population. They are also the ones which set up the largest number of practices in favor of the Duty of Care, which should tend to decrease their risks of exposure. The second group, with less Concerned Population (lower than 13 000 people) and fewer practices in Duty of Care, divides up on two zones, those of the countries at average risk and at extreme risk. It is not sure that the entities in zone 5 set up enough practices in Duty of Care to protect their collaborators. All the international organizations are part of this subgroup, most to the left of the graph. Contrary to what we could have assumed because of their relatively coercive way of functioning, they are not the ones which developed the largest number of practices in Duty of Care.

5.2.4. Limits and perspectives of this panorama

In the light of all the limits already quoted progressively in the previous chapters, the small number (15) of interviewed corporations and organizations (and because these ones are big entities only), the conclusions drawn from this graph cannot be generalized. This graph aims to be only a demonstration of what can be done in terms of tangibility of the Duty of Care. A further quantitative-type study would be necessary to be really representative of the application of the Duty of Care to corporations and organizations based in Switzerland.
We integrated into this panorama only a single risk, that of the country of destination. There are many more but it was becoming too difficult to represent several of them on the same graph. Each will be free to reuse this representation with the one or more risks that they want.

5.2.5. Attempt to represent the degree of maturity in Duty of Care

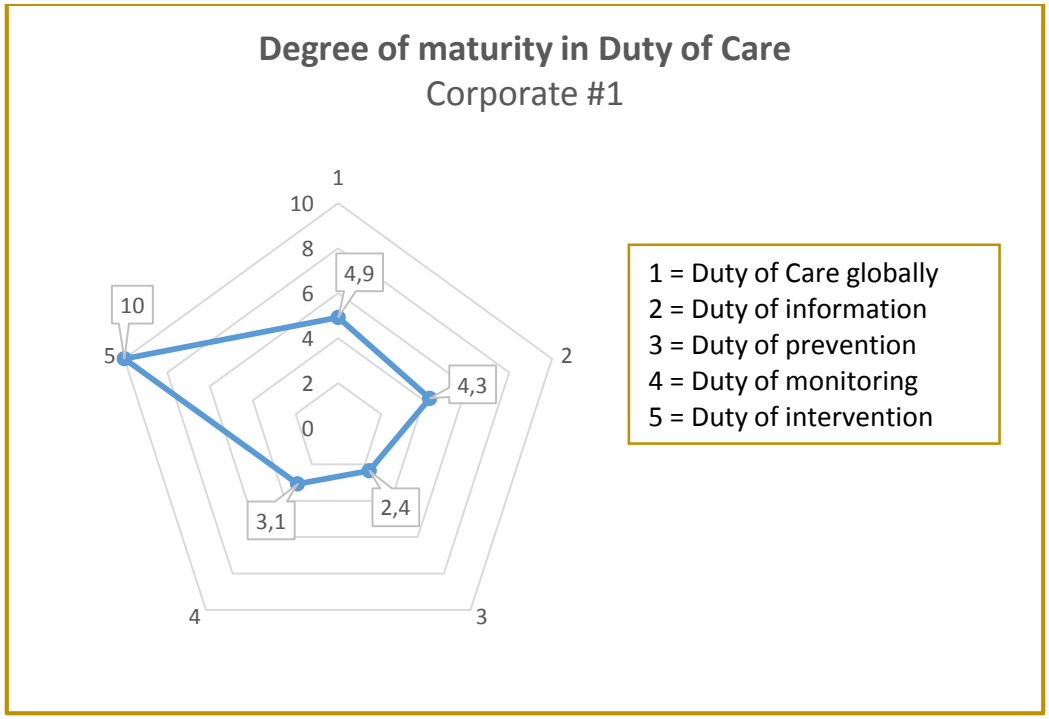
The results of the interviews also allow us to show the degree of maturity in Duty of Care. For that, we shall start from the Table 42 - Compilation of the answers to Question 1, page 83. We shall take into account the total number of practices by sub-duty of care, which will allow us to transform the total number of practices of a corporation or organization into a mark out of ten. It gives the following table.

Table 44 - Marks out of 10 for the sub-duties of the Duty of Care by interviewed entity.

MARKS OUT OF TEN		CORPORATES									INTERNATIONAL ORGANIZATIONS						Total of the practices
DUTY OF CARE		#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	
Information	Nbr of practices	*3*	*6*	*4*	*4*	*3*	*4*	*4*	*5*	*5*	*3*	*5*	*4*	*3*	*6*	*3*	7
	Mark out of 10	4,3	8,6	5,7	5,7	4,3	5,7	5,7	7,1	7,1	4,3	7,1	5,7	4,3	8,6	4,3	
Prevention	Nbr of practices	4	10	10	9	12	10	12	7	9	12	13	10	11	11	11	17
	Mark out of 10	2,4	5,9	5,9	5,3	7,1	5,9	7,1	4,1	5,3	7,1	7,6	5,9	6,5	6,5	6,5	
Monitoring	Nbr of practices	*4*	*5*	*5*	*1*	*6*	*2*	*6*	*4*	*3*	*8*	*6*	*6*	*7*	*7*	*7*	13
	Mark out of 10	3,1	3,8	3,8	0,8	4,6	1,5	4,6	3,1	2,3	6,2	4,6	4,6	5,4	5,4	5,4	
Intervention	Nbr of practices	*2*	*2*	*2*	*1*	*2*	*1*	*1*	*2*	*2*	*2*	*2*	*1*	*1*	*2*	*2*	2
	Mark out of 10	10	10	10	5	10	5	5	10	10	10	10	5	5	10	10	
TOTAL	**Mark out of 10**	**4,9**	**7,1**	**6,4**	**4,2**	**6,5**	**4,5**	**5,6**	**6,1**	**6,2**	**6,9**	**7,4**	**5,3**	**5,3**	**7,6**	**6,5**	**39**

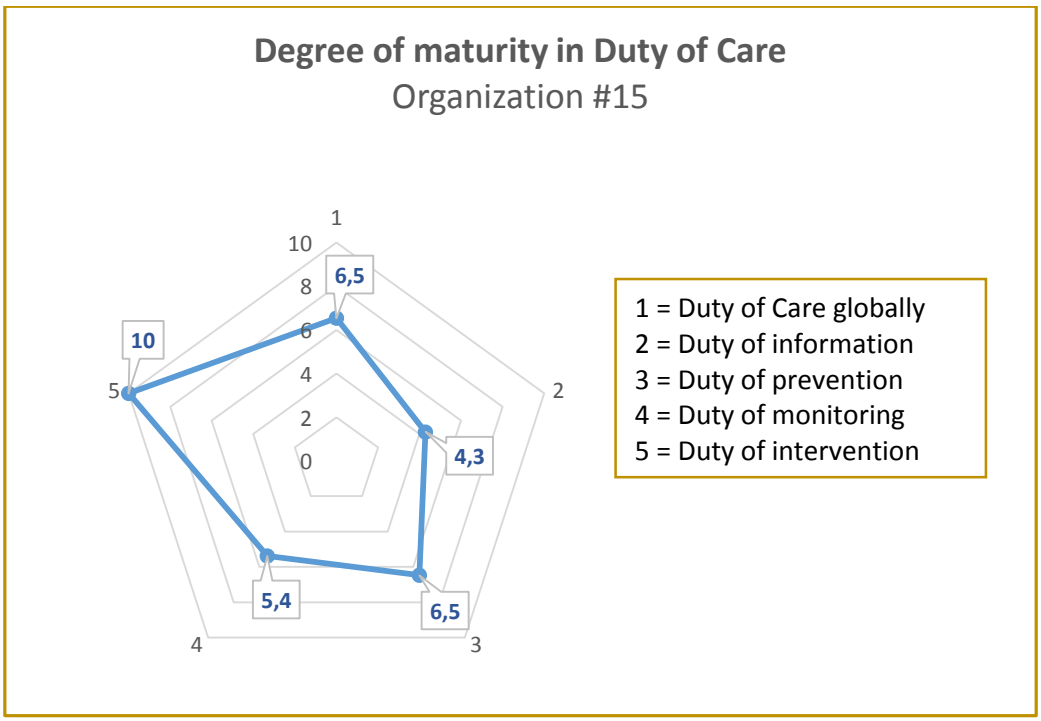
For every interviewed corporation and organization we can thus establish a Radar-type graph on which will be shown the marks out of ten for each sub-duty of care and also the mark out of ten for the Duty of Care globally. It is what we shall call its Degree of maturity in Duty of Care. Here are two examples.

Graph 2 - Degree of maturity in Duty of Care – Corporation #1.



So, the corporation #1 can see just in a glimpse what it realized and its degree of possible progress, globally and sub-duty by sub-duty. Here there is no homogeneity; the lowest mark is in duty of monitoring and the highest one in duty of intervention, which gives it an honorable global note of 4.4/10.

Graph 3 - Degree of maturity in Duty of Care – Orgamization#15



In this second example, we note better marks generally with a better homogeneity. This organization protects its travelers in mission and expatriates much better than the corporation #1 makes it but has still a margin of improvement.

5.2.6. Limits and perspectives of the Radar representations

These representations are based on the enumeration of the practices in Duty of Care which were globally cited during fifteen interviews. It does not mean that the list of the practices which we used is exhaustive.

Also, we neither took into account the risks linked to the countries of destination, nor the socio-professional conditions by corporation or organization.

Thus the employer will have to adapt his Duty of Care according to these factors and others. In summary, the employer is in charge of determining the factors to take into account and to make the list of the best practices according to the four components of the Duty of Care. It allows customization. It is on this point that we could consider guiding the manager in this approach but it exceeds the present study and could make the subject of another work.

This perspective would consist in making a list of the best practices for both the security and medical domains, the way Lisbeth Claus did it in her benchmark study[90]. The corporations and organizations will then have to choose in this list the best practice suited to them. Making this choice will help them in the approach for establishing their strategy in Duty of Care to their travelers and expatriates. A weighting of these best practices will be necessary to give them the importance and rank they deserve. This list would be integrated into a small IT tool requiring only ticking the best practices to set up and those already in place. It will be easy to extract from these data a Radar graph like the ones above, which will thus be "customized" to the travel and expatriation conditions of the collaborators of the corporation or the organization in question.

Another advantage of this mode of representation is that it can be applied to the target-population of one's choice: the travelers, the expatriates, etc. It will be possible to associate between the target-populations as we want. Also the comparisons between them will be possible, as well as a longitudinal follow-up. So, this Radar graph of degree of maturity in Duty of Care will allow one to place oneself compared to its own objectives at any time. Thus it can be used as a Key Performance Indicator (KPI) of Duty of Care. It could also be used as an internal, even external communication tool.

5.3. Conclusions

The Duty of Protection was imperative little by little in HR. It is not possible any more to send somebody abroad without a preliminary study of the risks to which he is going to be exposed and inform him about it (duty of information), without covering him socially and organizing the support from the back-office (duty of prevention), without controlling that what was prescribed is really set up and followed by the collaborator (duty of monitoring), without giving oneself the means to ban travel (duty of intervention) either for epidemiological reasons linked to the sanitary risk of the country of destination, or for personal medical reasons. It is also necessary to verify the adaptability of the person to the environment in which he is sent to work (medical check-ups including the psychological aspect if possible). The families of the expatriates, non-staff and the National Local Workers are not treated in the same way as the collaborators-staffs: This is subject to an important improvement.

Our qualitative inquiry allowed us to list the practices in Duty of Care put in place on the medical side in nine Swiss large corporations and six international organizations based in Geneva. We did not find notable differences between both groups of interviewees.

They all concluded that the classic medical check-ups were a part of the Duty of Care, even if paradoxically, the way they put these into place differs. A majority of the employers make them compulsory for their expatriates, but rarely for the family who accompanies them. For the travelers,

90 Cited opus (CLAUS:2011)

who remain under the Swiss social laws, the corporations often let the choice fall to their collaborators to undergo them or not whereas the international organizations are more coercive.

The presentation of the e-questionnaire, which crosses the medical profile of a collaborator with its country of destination to determine if he has to undergo a classic medical check-up or not, provoked diverse reactions. Some are reluctant, thinking that the quality of the contact with a doctor will never be replaced by an on-line questionnaire. However, the same people admit that they still have a role to play. The main given examples are: by inserting them between two medical check-ups the frequency of which will vary individually, to allow a basic screening when nothing else is offered (families, non-staffs, etc.), for travelers if they have access to them everywhere, at any time and as often as they want, for staff qualified enough to fill it in correctly. The *sine qua non* condition is the guarantee of the data security and privacy.

Well beyond legal requirements, the Duty of Protection has become an integral part of the new HR trends which considers the workforce of the corporation as its most important internal factor. The practices to be set up for the travelers on mission and the expatriates have to answer the principle of proportionality and be adapted to the real needs of each corporation. Therefore they will be different from one business sector to another. It obliges the employers to determine a strategy in Duty of Care. We propose joining the practices in the medical domains studied here to those of the security domain such as listed by Lisbeth Claus[91] to create a tool helping for the determination of the best practice to set-up and to make tangible the Duty of Care. It would allow every corporation or organization to visualize its current position, its objectives, the longitudinal follow-up of its progresses, and to communicate internally and externally on the Duty of Care.

———

It is necessary to protect both the collaborator, sometimes against himself, and the employer.
Before all, explain and convince; promulgate rules ultimately.

91 Cited opus (CLAUS:2011) p28.

Attestation

Je déclare sur l'honneur que j'ai effectué ce Travail de Master seul, sans autre aide que celles dûment signalées dans les références, et que je n'ai utilisé que les sources expressément mentionnées. Je ne donnerai aucune copie de ce rapport à un tiers sans l'autorisation conjointe du Responsable de l'Orientation et du Professeur chargé du suivi du Travail de Master et de l'institution ou entreprise pour laquelle ce travail a été effectué.

A Carouge, le 25 juillet 2014.

Jean-Bernard CARBONNEL

6. REFERENCES

[1] ANSART Severine, PEREZ Lucia, VERGELY Olivier, DANIS Martin, BRICAIRE Francois and CAUME Eric; "Illnesses in travelers returning from tropical countries ; a prospective study of 622 patients"; Journal of Travel Medicine; first published online 8 MAR 2006; Volume 12, Issue 6. Pages 312-318.

[2] BRAEUNING Dietmar and KOSHTALL Thomas; "Rendement de la prévention : calcul du ratio coût-bénéfices de l'investissement dans la sécurité et la santé en entreprise."; AISS, Geneva ; 2011.

[3] BRISCOE Denis, SCHULER Randal S. and TARIQUE Ibraiz; "International Human Resource Management: Policies and Practices for Multinational Enterprises"; Routledge, Taylor & Davis Group, Global Human Resource Management Series; New York & London; 2012; 4th edition; 527 pages.

[4] BUNN William; "Vaccine and international health programs for employees travelling and living abroad"; 2001: Journal of Travel Medicine, Volume 8 (Issue Suppl 1): s20-s23.

[5] BURKHOLDER Justin, JOINES Ron, CUNNINGHAM-HILL Mark and XU Baowei; "Health and Well-Being Factors Associated With International Business Travel"; Journal of Travel Medicine; 2010; Volume 17 (Issue 5): 329–333.

[6] CHAVANNE Michel and associates; « Can you get sued in Switzerland? The rights and obligations of Swiss companies and organisations vis-à-vis their travelling and expatriate staff. »: Security Management Initiative; 2012; 31p.

[7] CLAUS, Lisbeth; "Duty of Care and Travel Risk Management Global Benchmarking Study"; AEA International Pte. Ltd.; 2011; International SOS Benchmarking Series.

[8] DEROOSE, Patrick; "The Creation Of Cost Effective Prevention Strategies For Business Travelers And Expatriates: Analysis Of Medical Evacuations/Repatriations"; Society of Petroleum Engineers; 2010. First presentation at the AAOHN conference in 2009.

[9] DIJKSTRA Jan, CHAPUIS François and LOUTAN Louis; "Vaccine preventable diseases in long-term expatriates"; Journal of Travel Medicine; April 2005; Volume 12, Issue Supplement s1, pages S47–S57.

[10] DRUCKMAN Myles; "Saving Lives and Saving Costs: The Return on Investment Case for Pre-Travel Screening"; International SOS Briefings; 2011; 4p.

[11] DRUCKMAN Myles; "Country factors associated with the risk of hospitalization and aeromedical evacuation among expatriate; JOEM, Volume 54, Number 9, Sept 2012.

[12] FAYOL, Henri ; "Administration industrielle et générale." ; Bulletin de la Société de l'Industrie Minérale, 1916, N° 10, 5-164, regular republications by Dunod depuis 1918.

[13] FRAGNIERE Emmanuel, TUBEROSA Jean, MORESINO Francesco and TURIN Nathalie; "L'étude de marché en pratique. Méthodes et applications."; De Boek, Bruxelles ; 2013; 149p.

[14] FRANKLIN, Benjamin; "Protection of Towns from Fire"; The Pennsylvania Gazette: Philadelphia: February 4, 1735.

[15] GOLDONI LAESTADIUS Jasminka, SELOD Anne-Gaelle, YE Jian, DIMBERG Lennart and BLISS Anthony; "Can Business Road Travel Be Safe? Experience of an International Organization"; Journal of Travel Medicine; March/April 2011; Volume 18, Issue 2; 73-79.

[16] HARGARTEN Stephen W, BAKER Timothy D and GUPTILL Katharine; “Overseas fatalities of United States citizen travelers: An analysis of deaths related to international travel”; Annals of Emergency Medicine, Volume 20, Issue 6, Pages 622–626, June 1991.

[17] IOSH – Brochure “Safety without borders - Keeping your staff healthy and safe abroad”, chapter 6 Personal health p7.

[18] JEANNEL Dominique, ALLAIN-LOOS Sophie, BONMARIN Isabelle, CAPEK Isabelle, CASERIO-SCHOENEMANN Céline, CHE Didier, MORELLO Rémy and THELOT Bertrand; “Les deces de français lors d’un sejour à l’etranger et leurs causes.” ; BEH : 2006 ; N° 23-24 ; p166-168

[19] LEKI, Ryan S.; “Travel Wise: How to Be Safe, Savvy and Secure Abroad”; Boston: Intercultural Press, Nicholas Brealey Publishing Company: 2008.

[20] MARSHALL Bryan, CARDON Peter, PODDAR Amit and FONTENOT Renee: “Does sample size matter in qualitative research? A review of qualitative interviews in IS research”; Journal of Computer Information Systems. Fall 2013, Vol. 54 Issue 1, p11-22. 12p.

[21] MATHIASON, Tiffany; “Are you part of the global workforce? An examination of the "duty of care” to business travelers and international assignees under the ILO occupational health and safety conventions and as emerging international customary law.”; American University International Law Review, 2013, Vol. 28 Issue 3, p873-904. 32p.

[22] MERVOSH, E. M., and McCLENAHEN, J. S. 1997. “The care and feeding of expats.” Industry Week, 246(22): 68–72.

[23] PRICEWATERHOUSECOOPER; “Measuring the value of international assignments”; Human Resources Services; 2006; Page 22.

[24] PRICEWATERHOUSECOOPER; “Talent Mobility 2020. The next generation of international assignments”; 2010. 36p.

[25] ROGERS H Lynn and REILLY SM; “Health problems associated with international business travel. A critical review of the literature.”; AAOHN J ;2000 Aug ;48(8) :376-84

[26] ROGERS H Lynn and REILL SM; “A survey of the health experience of international business travelers. Part 1 – Physiological aspects”; AAOHN Journal; 2002 Oct; 50(10).449-59.

[27] RYAN Edward, WILSON Mary and KAIN Kevin; “Illness after International Travel”; N Engl J Med;2002;347:505-516, DOI: 10.1056/NEJMra020118

[28] SHANNONHOUSE Rebecca; “Overseas-assignment failures: Language, business skills don't ensure successful stint abroad”; USA Today International Edition, 8 Nov 1996 page 08.A.

[29] STRIKER James, DIMBERG Lennart and LIESE Bernhard H; “Stress and business travel: Individual, managerial, and corporate concerns”; Journal of Organizational Excellence; Winter 2000; Volume 20, Issue 1, pages 3–10

[30] TONELLATO DJ; “Injury deaths of US citizens abroad: new data source, old problem”; Journal of Travel Medicine: 2009; 16:p304-310.

[31] UNWTO – Tourism Highlights, Edition 2013, 16p.

[32] WANG Mathyas; “Economic aspects of Traveler’s Diarrhea.”; Journal of Travel Medicine; 2008; Volume 15, Issue 2, 110-118.

[33] WHITAKER Stuart and AW TC; “Audit of Pre-Employment Assessment by Occupational Health Departments in the National Health System”; Occup. Medicine (Lond) (1995) 45 (2):75-80

[34] WIETEN Rosanne, LEENSTRA Tjalling, GOORHUIS Abraham, VAN VUGT Michele and GROBISCH Martin P ; “Health Risks of Travelers With Medical Conditions -A Retrospective Analysis”; Journal of Travel Medicine, 2012, Volume 19, Issue 2, p 104-110.

7. APPENDICES

7.1. APPENDIX I – Examples of international jurisprudence in Duty of Care[92]

7.1.1. AUSTRALIA

Duic vs. Dillingham Corporation of New Guinea Pty Ltd (1972) 2NSWLR 266

An employee was injured while on business in Papua New Guinea.

Employee granted workers' compensation benefits.

Inspector Wayne James vs. Chack Ly & Ors (2007) NSWIRComm 315

Managing Director and General Manager charged with criminal breach of Occupational Health and Safety Act of 2002 when an employee is injured at an Australian work site. The Director was out of the country for a significant number of days during the year of the injury and the preceding two years.

Managing Director found guilty of breach of failing to ensure the health safety and welfare at work of company employees, although he was residing abroad. Penalties were imposed.

Knuckey v. Dyno Nobel Asia Pacific Ltd (2003) NSWSC 212

An employee is killed is killed by a blasting on a site in Papua New-Guinea.

The employee is entitled to a compensation under the law on compensation of the work injuries Workers Compression Act. The Supreme Court of the State of New South Wales grants damages and interest to the surviving spouse for nervous shock under the law Compensation to Relatives Act 1897 NSW.

Allen vs. Husdon Global (Aust.) Pty Limited (2006) NSWWCCPD 360.

Australian employee, while on a work related conference in the country, claimed Workers' Compensation for back injuries sustained while playing a video game at a nearby video game parlor on a conference break.

NSW Workers Compensation Commission awarded employee compensation, holding that the employer does not need to sanction activity for it to be compensable. Although this case is domestic, this ruling would probably also apply to foreign travel and assignments.

Inspector Ken Kumar vs. David Ritchie (2006).

CEO residing outside of Australia was charged in a criminal action for failing to provide a safe system of work when an employee was killed on an Australian work site.

CEO convicted of breach of the Occupational Health and Safety Act of 2000, with cash penalties imposed against said CEO.

Neilson vs. Overseas Projects Corp. of Victoria Ltd (2005) 223 CLR 331

Spouse of an employee on a two year assignment in China was severely injured in a fall on a staircase.

High Court confirmed damage award to spouse against employee's employer.

92 Extracts from CLAUS, Lisbeth "Duty of Care of Employers for Protecting International Assignees, their Dependents, and International Business Travelers"; AEA International Holding PTE;2009; p10-19.

7.1.1. SPAIN

Sentence of May 4, 1998. (RJ 1998\4091) Spanish Supreme Court

An employee suffered permanent paralysis while on assignment abroad.

Court held that as long as employees are subject to company decisions, an accident while on a mission abroad is an "occupational" accident as defined in the Labor Risk Prevention Law and the employer has a duty of security to the employee.

7.1.2. UNITED STATES

Markohaltz v. Gen. Elec. Co. 193 N.E., 2d.636 (N.Y. 1963)

An employee based in New York was sent by his employer to a conference in Paris, France. On his journey back home to New York, and after a 10-day vacation following the conference, he was killed when his return flight crashed. His heirs were awarded WC benefits. The employer appealed the decision.

The Court of Appeals upheld the WC award for the employee, as he was traveling home to resume his employment.

7.1.3. FRANCE

Supreme Court Social Chamber 19th of July 2001 n°99-21.536 Framatome

Employee working for a French company in China suffered a cerebral haemorrhage in his hotel room.

All injuries during a business trip abroad are considered work related whether the employee is injured during work or during a period of non-work.

CA Rennes 24 October 2007 Nr. 06/06410

Employees of a French company were killed as a result of a suicide bombing in Karachi, Pakistan.

Although the company had taken several initiatives to avert security problems in the zone by providing Employee information, the court found the employer liable for gross negligence. The company in charge of the transport did not properly implement the prescriptions with regard to itinerary changes. Providing employee information alone was considered insufficient Duty of Care.

7.1.4. UNITED KINGDOM

Palfrey-v-Ark Offshore Limited [2001] WL 134034706

An employee of a U.K. company died from malaria caught while on assignment in West Africa. Prior to leaving, the U.K. employer advised the employee to seek medical advice regarding the advisable vaccinations and prophylactics. The employee told his employer that he understood the need to seek medical advice but failed to do so. The employee's widow brought a claim for damages against the employer.

Court awarded damages for the employer's breach of Duty of Care, despite the employee's knowledge of the risks and need to seek advice and the employee's failure to do so. Court stated that the employer has a minimum responsibility to ascertain and make available to the employee publicly available information on health hazards.

7.2. APPENDIX II – The health risk according to the countries - Intl.SOS Health Map (2014)[93]