

An analysis of returned mission/volunteer/ humanitarian aid workers to InterHealth, London, UK.

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Objective

To analyse the demographics, travel patterns, and region-specific morbidity of mission/volunteer/humanitarian aid (MVHA) workers, in order to better inform consultations with these travellers.

Background

Evidence of travel-associated morbidity in MVHA workers is limited; experience suggests they may be a high risk group.

Methods

Clinician-based surveillance data collected at InterHealth were extracted from the GeoSentinel database, for all returned MVHA workers, who had travelled within six months, and who presented for asymptomatic screening or illness, 25 September 2007 - 24 September 2008.

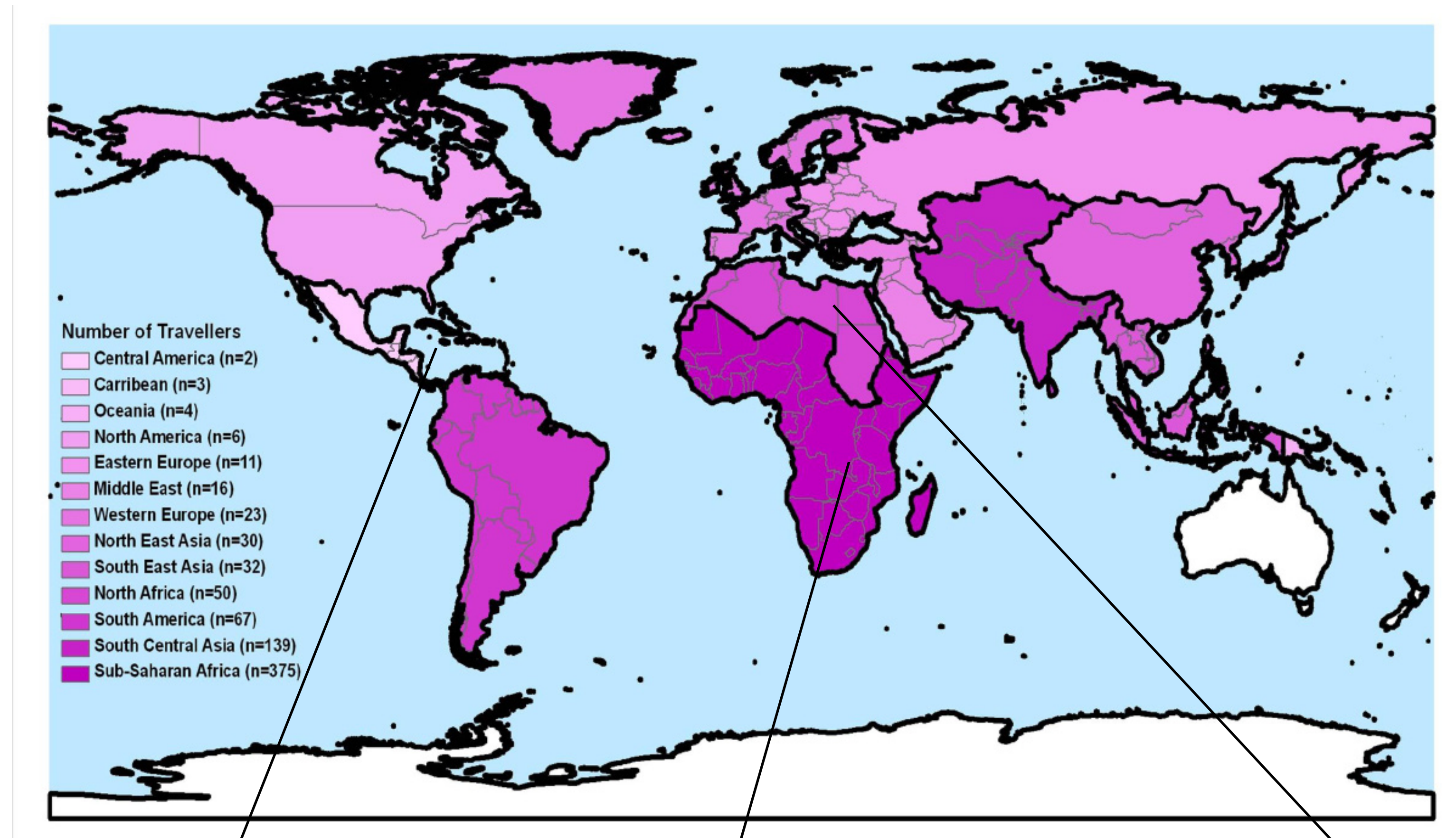
Statistical significance was determined by Chi-square tests ($p < 0.05$).

Table 1: Characteristics of all returned MVHA workers

| Characteristics | Number (%) of subjects |
|--|------------------------|
| Total number of MVHA workers | 1109 |
| Sex | |
| Male | 507 (45.7) |
| Female | 602 (54.3) |
| Median age (years) | 37 (IQR 29-46) |
| Documented pre-travel health advice | 615 (55.5) |
| MVHA workers seen after travel | 649 (58.5) |
| MVHA workers seen during travel | 460 (41.5) |
| MVHA workers classified as "expatriates" | 284 (25.6) |
| MVHA workers undertaking "pre-arranged / organised travel" | 70 (6.3) |
| MVHA workers classified as "risk travellers" | 750 (67.6) |
| Unclassified | 5 (0.5) |

* Percentages may not sum to 100 due to rounding.

Figure 1: Regions travelled to by all returned MVHA workers
(Excludes those who travelled to multiple regions)



1. Travel to the Caribbean

- Travel to the Caribbean was associated with greater illness compared to travel to other regions; 75.0% (n=6) of MVHAs returned ill.
- Many MVHAs had worked in Haiti following several natural disasters and had poor access to safe water.

2. Travel to Sub-Saharan Africa

- Sub-Saharan Africa was the most visited region by MVHAs.
- Travel to Sub-Saharan Africa was associated with greater illness compared to travel to other regions; 55.6% (n=272) of MVHAs returned ill.
- Most common diagnoses were psychological disorders and chronic diarrhoea.
- Many MVHAs had worked in areas of conflict/post conflict such as DRC, with security concerns and often limited access to safe food and water.

3. Travel to North Africa

- Travel to North Africa was associated with greater illness compared to travel to other regions; 64.4% (n=470) of MVHAs returned ill.
- Most common diagnoses were psychological disorders and schistosomiasis.
- Many MVHAs had worked in Darfur, Sudan, with security concerns, limited access to safe food and water, and washing/swimming in local rivers.

Results

1288 final diagnoses were recorded; of these 47.7% of MVHA workers returned "healthy", 52.3% returned "ill". Significant differences in causes of morbidity were observed according to region of travel ($p=0.00$)

- Psychological disorders - 10.9% - associated with those who had travelled to multiple regions.
- Chronic diarrhoea (> 2 weeks) - 6% - associated with those returned from South East Asia and Sub-Saharan Africa.
- Acute diarrhoea (< 2 weeks) - 5.1% - not associated with any one particular region.
- Respiratory diseases - 4.6% - associated with those returned from South Central Asia.
- Schistosomiasis - 4% - associated with those returned from Sub-Saharan and North Africa.
- Significant differences in morbidity were also found according to region of travel ($p=0.017$ for travellers to one region only; $p=0.00$ for travellers to multiple regions). The regions which contributed most to these differences were the Caribbean, Sub-Saharan Africa and North Africa.

Conclusions

Significant differences in morbidity, dependent on region/s of travel, have been identified amongst a cohort of mission, volunteer and humanitarian aid workers.

An understanding of these differences enables evidence-based, region-specific, pre- and post-travel services to be delivered and raises awareness of the specific health risks, including psychological health risks, to organisations working in these sectors.