was 14 days. Thirty-five percent of international travelers were traveling to low-income countries, 46% to low-middle income, 16% to upper-middle income, and 2% to upper-income countries. The main purposes of travel were vacation/leisure (63%), business (20%), extreme-adventure travel (14%), education/research (11%), visiting friends and relatives (10%), non-medical service work (6%), and providing medical care (4%). Two percent of travelers were attending large gatherings. Ten percent were children less than 18 years of age; 4% were less than 5 years of age; and 6% of travelers were over 65 years of age. Sixty-four percent of travelers listed a medical condition; 70% were on daily medication. Ten percent of travelers reported a pre-existing neurologic or psychiatric condition; 7% reported a pre-existing intestinal condition; 2.5% were immunocompromised; and 0.4% of female travelers were pregnant or breastfeeding. We analyzed vaccine usage for prevention of hepatitis A, yellow fever, and influenza. Eighty-one percent of travelers received immunization against hepatitis A; 7% were considered preimmune. Of the 38% of travelers visiting countries that included areas endemic for yellow fever, 67% received yellow fever immunization; 18% were considered pre-immune. Yellow fever vaccine was administered to 407 travelers 60 years of age or older. Forty percent of international travelers received influenza vaccine; 30% were considered pre-immune. Of the 2082 travelers traveling to countries that included areas endemic for malaria, 65% received malaria chemoprophylaxis. Of these, 66% received prescriptions for atovaquone-proguanil, 3.5% received doxycycline, and 14% received mefloquine.

Conclusion: These data suggest that international travelers range widely in age and frequently have co-morbid medical conditions that heighten the need for pre-travel advice.

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32.005

Use and sources of medical information among departing international travelers to low and middle income countries at Logan International Airport-Boston, MA, 2009


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Background: International travelers play a significant role in the global spread of infectious diseases, especially travelers to low and middle-income countries (LMICs). Despite this, limited data exist on sources of health information used by these travelers.

Methods: To address this, we surveyed 1,254 international travelers who reside in the U.S. and were departing from Boston-Logan International Airport in 2009.

Results: Of the 1,254 travelers, 671 (54%) were traveling to LMICs. The mean age of travelers to LMICs was 42 years, and 30% were traveling for more than 2 weeks. Purposes of travel included vacation/holiday (63%), business/work (11%), educational/cultural exchange (6%), performing volunteer work (10%), adventuring (7%), attending a large gathering (2%), providing medical care (3%), receiving medical care (0.5%), and adoption (0.3%). Nineteen percent were traveling as part of a family that included children, and 104 (16%) were born overseas and returning to visit friends or relatives (VFRs).

Among travelers to LMICs, 50% did not seek any medical advice and 74% did not see a healthcare professional prior to travel. For travelers who did not seek medical advice, the most common reasons cited were lack of concern about health issues (60%), not thinking of it (35%), not having enough time (7%), inconvenience (3%), and expense (2%).

A significantly lower percentage of VFRs sought any-source medical advice prior to travel compared with other travelers (37% vs 52%; p < 0.004). VFRs were less likely than other travelers to use the Internet (12% vs 24%; p = 0.004), and less likely to see a specialist practitioner prior to travel (2% vs. 15%; P < 0.001). VFRs and other travelers were equally likely to seek advice from primary care providers prior to travel (21% vs. 17%; p = 0.32).

Conclusion: Our results suggest that half of travelers to LMICs do not seek any healthcare advice prior to their trip, and that most of such travelers do not seek advice from a health care professional. The most common reason these individuals cite for not seeking medical advice is lack of concern about health problems related to travel. These results suggest a need for health outreach and education programs targeting travelers to LMICs.

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32.006

Transporting a critically ill patient from the Canadian north - lessons learned from almost a decade of SkyService Medevac experience

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Background: Canadian North is vast territorially, yet medical resources are lacking manpower, expertise, equipment and facilities. Transport of seriously ill patients is, hence, a common necessity frequently requiring both ground and air transportation. SkyService Medevac is the major medevac air-transporter in Canada and one of the global leaders in the field.

Methods: We reviewed the data related to a total of 988 cases of medical evacuations from 2002 to 2008. The data reveals information regarding demographics, pathology prompting the transport as well as medical expertise required for the transport. We pay special attention to the
parameters concerning the neonatal and pediatric popula-
tion.

Results: Of the 988 cases (Table 1) of medical evacuation
from Baffin Regional Hospital in Iqaluit, Nunavut, between
2002 and 2008, pediatric population comprised 35.6%,
majority of whom were neonates. Almost 17% of the patients
were critically ill, intubated and required intensive-care
hospitalization. The most common pathologies prompting
evacuation were those involving cardiovascular and respira-
tory systems. There were no in-flight mortalities, while
invasive interventions by the medical staff were extremely
rare after departure.

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Pts</th>
<th>Vented</th>
<th>Non Vented</th>
<th>Age &lt;1</th>
<th>Age 1-18</th>
<th>Age &gt;18</th>
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<td>24</td>
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<td>104</td>
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<td>82</td>
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<tr>
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<td>19</td>
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<tr>
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<td>21</td>
<td>143</td>
<td>25</td>
<td>26</td>
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<tr>
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<td>35</td>
<td>187</td>
<td>52</td>
<td>19</td>
<td>150</td>
</tr>
<tr>
<td>Total</td>
<td>988</td>
<td>165</td>
<td>823</td>
<td>205</td>
<td>147</td>
<td>636</td>
</tr>
</tbody>
</table>

Conclusion: Safe air transport from any destination is fea-
sible, but required detailed planning, pre-flight preparation
and expertise. SkyService Medevac data demonstrate that
transport from Canadian North is not only safe, but also
economically advantageous.

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32.007

Incidence and impact of travelers’ diarrhea among foreign
backpackers in Southeast Asia

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Background: Travelers’ diarrhea is the most common dis-
ease reported among travelers visiting developing countries,
including Southeast Asia, which is visited by large numbers of
backpackers each year. Current knowledge of this particular
group is limited. This study aimed to determine the inci-
dence and impact of travelers’ diarrhea among this group.
The secondary objective was to assess their attitudes and
practices towards the risk of travelers’ diarrhea.

Methods: Foreign backpackers in Bangkok, Thailand,
were invited to fill out a study questionnaire, in which
they were queried about their demographic background,
travel characteristics, pre-travel preparations, and actual
practices related to the risk of travelers’ diarrhea. For
backpackers who had experienced diarrhea, the details and
impact of each diarrheal episode were also assessed.

Results: In the period April-May 2009, 408 completed
questionnaires were collected and analyzed. Sixty percent
of participants were male; overall, the median age was 26
years. Nearly all backpackers (96.8%) came from devel-
oped countries. Their main reason for travel was tourism
(88%). The median stay was 30 days. More than half the
backpackers (56%) carried some antidiarrheal medication.

Antimotility drugs were the most common medication car-
ried by backpackers, followed by oral rehydration salts
(ORS), and antibiotics. Although 61% of participants had
received information about travelers’ diarrhea before the
current trip, their practices were far from ideal; 95.7% had
bought food from street vendors, 92.5% had drunk bever-
ages with ice-cubes, 34.6% had eaten leftover food from a
previous meal, and 27.5% had drunk tap water. Only 23% of
backpackers always washed their hands before eating food.
In this study, 31% (130/408) of backpackers had experienced
diarrhea during their trip. Most cases (88.4%) were mild and
recovered spontaneously. However, 8.5% of cases required
a visit to a doctor, and 3.1% needed hospitalization; 16.28%
had to delay or cancel their trip due to a diarrheal attack.

Conclusion: About one third of the foreign backpackers in
Southeast Asia had experienced diarrhea during their trip.
Their current state of awareness and practices related to
the risk of travelers’ diarrhea were inadequate and should
be improved.

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32.008

The health surveillance stations at points of entry in
Brazil under the revised International Health Regulations
-IHR/2005

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Background: The recent revision and update of the Inter-
national Health Regulations, IHR (2005), provides a new
approach to deal with international reaction to public health
events and to ensure global health security. Therefore, it
is a priority to build, strengthen and to mobilize the nec-
necessary resources. The National IHR Focal Point must notify
within 24 hours all events which may constitute a public health emergency of international concern. This study aim
to assess the effectiveness of Health Surveillance Units at
points of entry in Brazil regarding health control of interna-
tional travelers and epidemiological investigation conducted
in accordance with the IHR (2005).

Methods: It was analyzed the public health events noti-
fied to the Health Surveillance Units at points of entry that
occurred in the first year after IHR (2005) entry into force
in accordance with the attributes of usefulness, sensitiv-
ity, timeliness, and stability, and their relation with Malaria
imported cases into Brazil at the same period.

Results: Since 1975, Brazil has a broad national epi-
demiologic surveillance system to reporting infectious and
non-infectious diseases and that enables the assessment and
control of these events timely. Until 2007, the main activ-
ity at points of entry was the supply of the yellow fever
vaccine and its verification when an international traveler
was arriving from an affected country. At the first year, 26
suspected events of public health concern were reported
by points of entry to central office after 4.2 days average,
such as unknown death (6 events), chickenpox (5), malaria
(4), tuberculosis (2), outbreaks of foodborne illness (2), and
one of rubella, Hanseniasis, acute fever illness, hepatitis,
norovirus, conjunctivitis and accident. At the same time,