

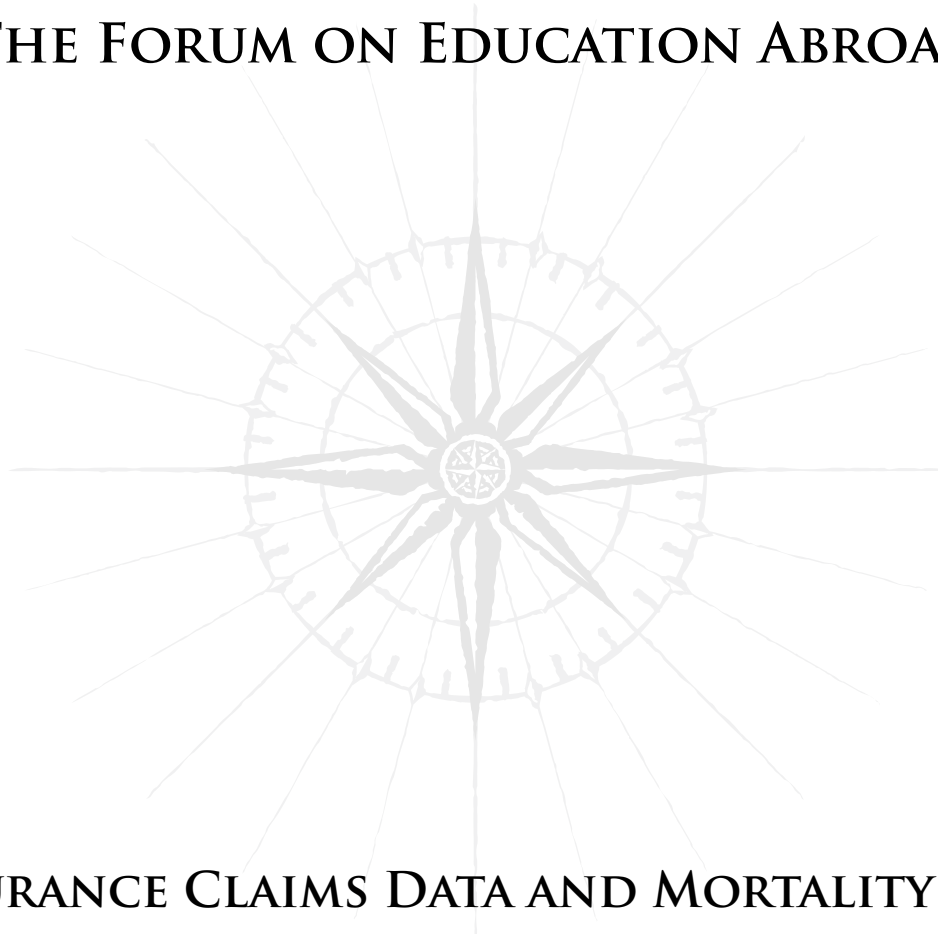


THE
FORUM
ON EDUCATION
ABROAD

INSURANCE CLAIMS DATA
AND MORTALITY RATE
FOR COLLEGE STUDENTS
STUDYING ABROAD



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MARCH 2016



Key Finding

College students studying abroad are less likely to die than college students studying on campuses in the U.S.

Annualized Mortality Rates*

Student cohort	Mortality rate per 100,000 students
College students studying abroad	13.5
College students on U.S. campuses	29.4

* Do not represent actual number of student deaths; annualized rates are estimated based on a 33-week academic year.

Introduction

The purpose of this report is to provide data that offer students, parents, faculty and administrators, legislators, and the general public objective information regarding the safety of education abroad. This report should be useful for ascertaining the general level of risk faced by U.S. university students abroad, and how this compares to the level of risk that students face when they remain on campus in the U.S. The chief conclusion of this report provides a measure of comfort in concluding that, at the very least, study abroad does not carry a greater risk of death than does domestic education in the U.S.

Background

Over the past few years there have been efforts in the U.S. at both the federal and state levels to pass legislation related to the perceived safety of students during education abroad.¹ Advocates in favor of this legislation have argued that education abroad is an educational activity that carries a greater degree of risk of death, and therefore laws must be passed to help to ensure the safety of students. However, these views have been unsupported by any objective data.

Since 2010, The Forum has collected information on critical incidents involving students participating in education abroad as part of its Critical Incident Database (CID) project. A Report on the 2014 CID data is available on The Forum's website.² The voluntary CID initiative was the first field-wide attempt to move data collection from anecdotal reports to data-driven accounts of critical incidents such as deaths, accidents, evacuations, and illnesses. While greatly influential in furthering the education abroad field's understanding of critical incidents of students abroad, the CID sample set is not large. Further, information regarding the same types of incidents for students who remain on campus in the U.S. is generally unavailable. This has made a thorough, comparative analysis of incidents on campus with incidents involving students abroad practically impossible.

The Forum recognized the need to gather more information on education abroad critical incidents in order to provide an analysis that supplements the CID data, to further inform the field, the public, and potential legislation related to education abroad health and safety. The Forum therefore approached major insurance providers that provide services to the education abroad field and asked if they would be willing and able to share anonymous claims data with The Forum, thus giving access to a robust sample and an objective measure of the range, type, and number of education abroad student incidents. Protecting the confidentiality of the information was a significant consideration in collecting the data.

1 See also: Whalen, Brian. "Is Legislation of Education Abroad Necessary?" *Forum Focus*, Volume 2, Issue 2, March 2016. Available at: https://issuu.com/forumoneducationabroad/docs/forum_focus_-_march_2016_final/1.

2 To view the Report: <https://forumea.org/wp-content/uploads/2014/08/Critical-Incident-Database-2014-report.pdf>.

Two major insurance providers agreed to share their claims data for the 2014 calendar year. Together, these two providers insured nearly half of all the students who studied abroad in 2014, providing a large enough sample to make it possible to draw meaningful conclusions about education abroad critical incidents.

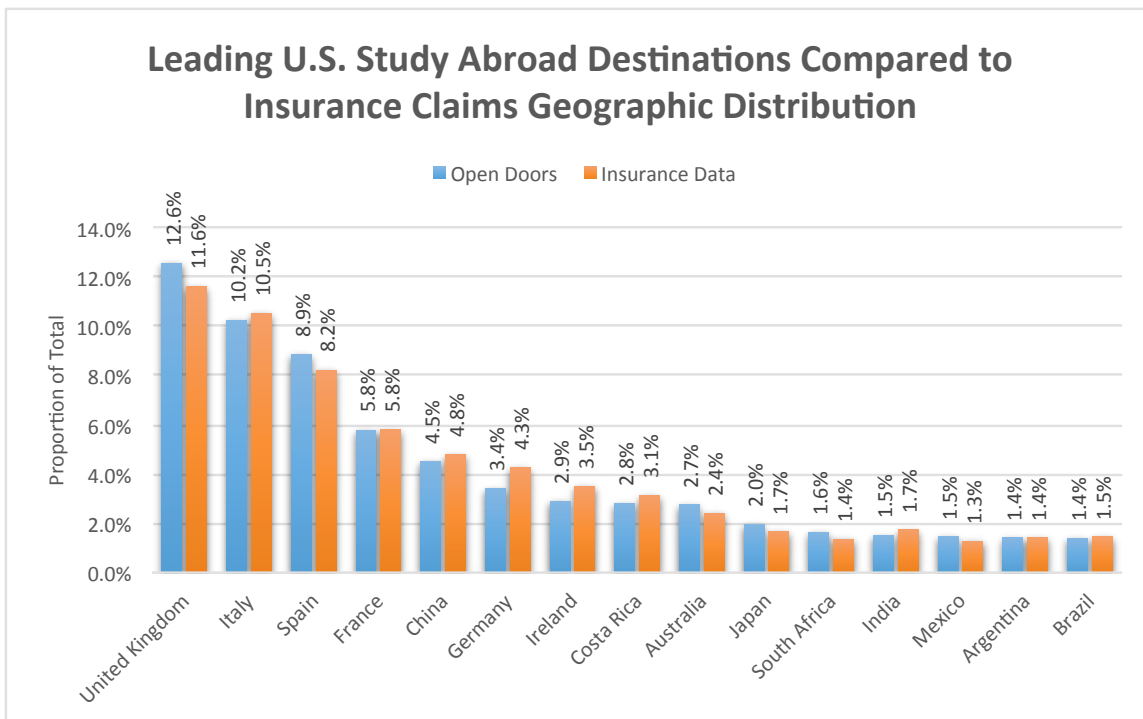
The Forum contracted with a statistical analysis firm, *Crafted Analytics*, to analyze the claims data and assist with the preparation of this report.

The Insurance Claims Data

The 2014 claims data used for this analysis was provided by two insurance providers: Cultural Insurance Services International (CISI) and HTH Worldwide (HTH). In calendar year 2014, CISI and HTH insured a total of 146,898 college students with an average time spent abroad of 73.6 days in 184 countries.

The data from both insurance providers were compiled from actual claims information, which allowed for a high level of confidence in the results. Personal identifying information was deleted by the insurance providers before they shared the claims information, ensuring anonymity of the students involved.

Based on an analysis of the 2013-14 Open Doors Report published by the Institute for International Education (IIE), the students insured by CISI and HTH represent almost 50% of all students who studied abroad in 2014, and all major education abroad destination regions of the world were represented.³ The chart below shows the top 15 study abroad country destinations in 2013/14 according to *Open Doors*. Also shown is the proportion of the students studying in these countries who were represented in the claims data. As can be seen in the side-by-side comparison, the distribution by country is very similar.



³ Open Doors Data – U.S. Study Abroad. Retrieved February 10, 2016, from <http://www.iie.org/Research-and-Publications/Open-Doors/Data/Us-Study-Abroad>.

Mortality Rate

The insurance claims data included 4 deaths out of a total of 146,898 insured students. Two of the deaths were related to pre-existing medical conditions and two were accidental.

In order to understand how the number of deaths abroad compares with the number of student deaths on U.S. campuses, we identified a study, “Causes of Mortality Among American College Students: A Pilot Study,” published in the *Journal of College Student Psychotherapy* in 2013 (the Turner Study).⁴ That study collected survey response data from 157 4-year universities and colleges to investigate the leading causes and rate of mortality for students at a sample of U.S. institutions of higher education. The survey results were combined with data from the Department of Education and the National Center for Education Statistics to determine an annualized mortality for 18-24 year-old enrolled students. The result of this research was a determination of a mortality rate of 22.4 per 100,000 college students on U.S. campuses in 2013.

After examining the Turner Study’s method of annualizing we discovered that it was based on the assumption that students in the U.S. are attending college 10 months of the year, when in fact a more reasonable assumption would be more on the order of 7 ½ months or 30 weeks (based on two 15-week semesters). To be conservative we will assume students are in college 33 weeks per year. Shortening the time spent in college increases the Turner Study’s annualized in-college mortality rate from 22.4 deaths per 100,000 students per year to 29.4. It is important to point out that for the Turner Study, the proportion of the year that students were assumed to be in college was not particularly critical since their research questions were focused on comparing the relative mortality rates for various in-college causes of death and comparing the relative rates of in-college mortality among women and men. Because time spent in study abroad varies widely and most often lasts less than an academic year, we must use a more realistic time period of 33 weeks to annualize the domestic data for comparison with annualized study abroad information.

When the mortality rate from the combined insurance claims data from CISI and HTH in 2014 is annualized for the sake of direct comparison with the Turner Study’s rate, the mortality rate for U.S. students studying abroad is 13.5 per 100,000 students per year. This conclusion is based upon 4 deaths among 146,898 insured students and an average time abroad for each student of 73.6 days, which equates to 19.8 deaths for a full 365-day year for 146,898 students. With such a small number of deaths it is very difficult to infer anything to the general population of students studying abroad.

It is common practice to use odds ratios to compare the relative rates of rarely occurring events such as mortality rates. By calculating a confidence interval for these odds ratios, one can make a statement with specified certainty that compares the relative risk of death for students in the U.S. with the relative risk of death for students studying abroad. Using this method and based on the insurance claims data collected for this report, we estimate that a student studying in the U.S. is 2.18 times more likely to die than a student studying abroad. In fact, we can state at the 99% confidence level that a college student abroad has a lower chance of dying than a student in the U.S. Indeed, a sensitivity analysis on the number of deaths abroad concludes that even if the death toll of students abroad had been 5 rather than 4, then studying abroad is safer at the 99% level; if the death toll had been 6 rather than 4, then studying abroad is safer at the 95% level. Only if the death toll more than doubled to 9 would the reverse conclusion be obtained and that conclusion would not be statistically significant. The death toll among students studying abroad would have to have tripled (to 12) before that conclusion would become statistically significant at the 95% level.

It should be noted, in the interest of completeness, that even using the original figure of 22.4 deaths per year for students in the U.S. from the Turner Study, a student abroad is 1.7 times less likely to die than a student on a U.S. campus, and these estimates still support the claim that the risk of death is less for students studying abroad than for students studying in the U.S. at the 95% confidence level.

4 Turner, J.C., Leno, E.V., & Keller, A. “Causes of Mortality Among American College Students: A Pilot Study.” *Journal of College Student Psychotherapy* 27.1 (2013): 31-42.

Other Information from the Insurance Claims Data

The insurance claims were classified and sorted into the following categories: Outpatient, Inpatient, Evacuations, Deaths, and in a small number of cases, Unknown, where the claim fell into more than one category. Many claims included incidents that occurred while students were not engaged in activities related to the education abroad program; for example, incidents that occurred during independent travel during program breaks, or before or after the program began or ended.

The insurance claims data reveal that approximately 10% of all students abroad had an insurance claim filed. The vast majority of these were claims having to do with outpatient care. The table below shows the percentage of claims in each category.

Percentage of Claims by Category

Outpatient	Inpatient	Evacuation	Death	Unknown/Other
94.5%	2.9%	0.8%	0.1%	1.6%

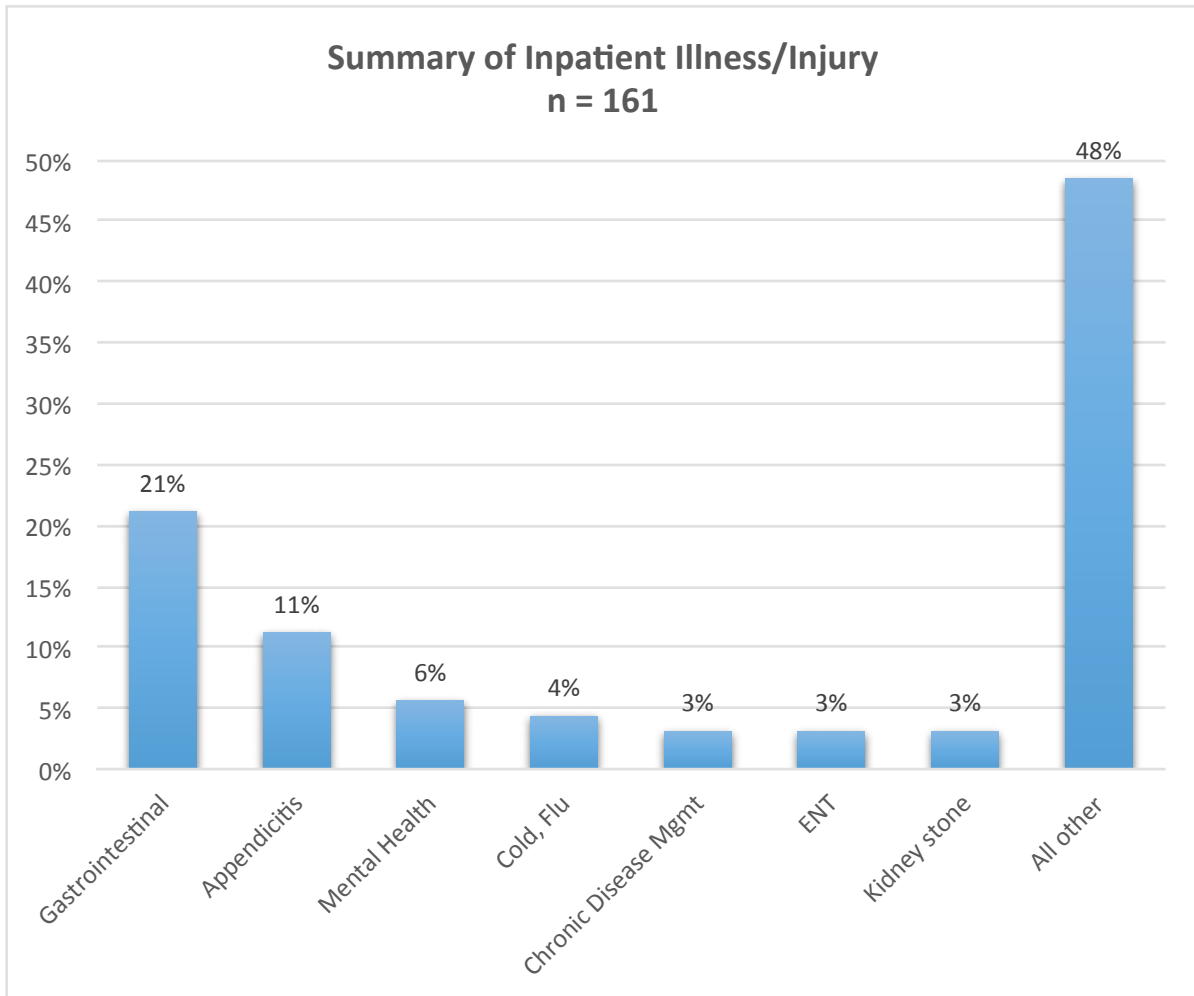
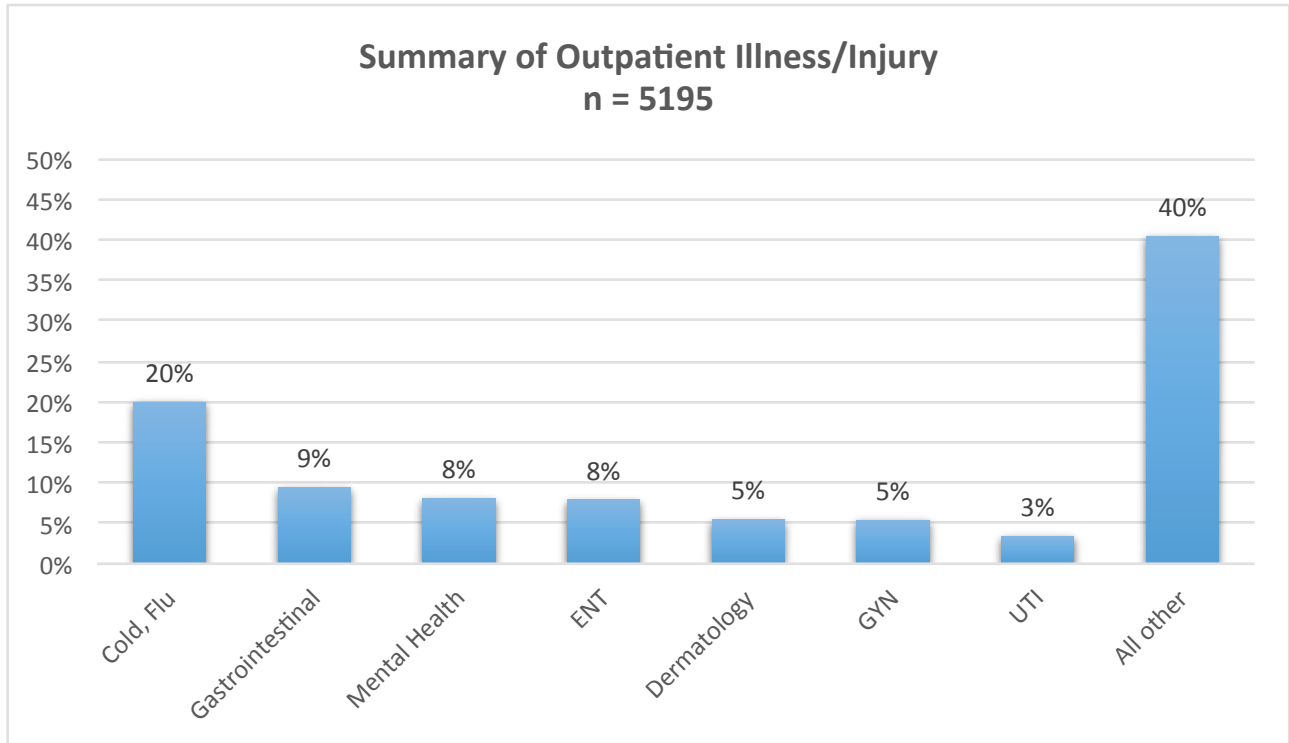
The claims data were grouped into eleven global regions to determine if there were any major regions of the world in which a disproportionate number of claims were filed. Ninety-five percent of all students studying abroad were accounted for in the following five regions: Western Europe, Asia, Latin America & Caribbean, Oceania, and Eastern Europe. The numbers of claims were too small in other regions to make a meaningful analysis. An analysis of variance (ANOVA) was used to test whether or not there was a difference in the proportion of the four primary patient classifications among the five major global regions. The p-values for the ANOVA tests are shown in the table below. From these results we can conclude that for the five most popular education abroad regions, there was no significant difference in the rate of any of the major patient classifications.

ANOVA Test: Proportions for Major Global Regions

Patient Classification	ANOVA p-value
Outpatient	0.2189
Inpatient	0.3825
Evacuation	0.7973
Other	0.4427

With just 4 deaths, it was not appropriate to conduct an ANOVA test for the proportions among the major global regions.

The data from HTH provided additional detail regarding the diagnoses for both "Outpatients" and "Inpatients." This information is summarized in the charts below. In both of the charts, the category "all other" captures a long list of unique entries, thus representing a large proportion of the illnesses and injuries. For example, there are 38 different instances of a "fracture," but many different fractures were listed (e.g., leg fracture, wrist fracture, etc.). The same is true for "sprain," "pain," "lacerations," and many claims that are listed as an "injury" to some specific part of the body.



In the claim category of “Evacuation,” there were a total of 27 claims; however, these were provided only in the HTH data. Evacuation claims involved incidents that led to students needing to return to their home countries. 56% (15) of the evacuations were classified as having to do with “mental health” issues. 15% (4) were due to fractures, dislocations, or joint injuries. 11% (3) were altitude-related illness. The remaining 15% (4) evacuations were single medical cases listed as cold/flu, asthma, vasculitis, and appendicitis. Sixteen of the evacuations were conducted on commercial flights, 8 were on commercial flights with a medical escort, and 3 were evacuated by air ambulance.

It would be of interest to conduct comparisons of the various types of illnesses and incidents that were revealed in the insurance claims data and which are also detailed in the Critical Incident Database reports, but, unfortunately, comparison data for students on U.S. campuses is not available at this time. Further study that seeks to compare education abroad illness and incident data with data for students on U.S. campuses would provide information about whether or not students abroad are more or less likely to seek outpatient care or be hospitalized than students on U.S. campuses.

Conclusion

Comparing the analysis of education abroad insurance claims data with the 2013 Turner Study on causes of mortality for students studying at U.S. campuses reveals that student deaths related to education abroad are less common. This conclusion is based on a comparison of mortality rates which demonstrates that students enrolled on U.S. campuses are more than twice as likely to die as students studying abroad. While year-to-year variations may alter the results to some extent, the sensitivity analysis performed above should provide some measure of comfort in concluding that, at the very least, study abroad does not carry a greater risk of death than does study on U.S. university campuses.

The data reported here support the conclusion that study abroad is not more risky, in terms of the likelihood of death, than university study in the U.S. Still, it remains the responsibility of the field of education abroad and its professionals to maintain and continuously strive to improve student health and safety abroad. This can be achieved by offering high quality education abroad programs, providing training for education abroad professionals and students, and regularly reviewing health and safety policies and procedures and adjusting them as necessary. The Forum’s *Standards of Good Practice for Education Abroad* provide a roadmap for professionals in the field to evaluate and improve these policies at their own organization, and The Forum’s online resources and professional training and events offer a rich collection of perspectives and identified best practices to support an institution or organization’s implementation of the *Standards*. Data collection alone is not enough to ensure student safety abroad. Only by the application of field-wide *Standards* and best practices and continuing conversations and data collection and analysis on these topics can education abroad constituents work to maintain and improve student safety abroad.

Thank You

The Forum thanks William L. Gertz, President and CEO of AIFS, for proposing the idea for this study to The Forum. The Forum is grateful to Carol Foley of HTH Worldwide and to Cultural Insurance Services International for their cooperation. The Forum is also grateful to Professor Stephen Erfle, Dickinson College, for assisting with the analysis of the data. Finally, The Forum thanks the numerous colleagues who provided feedback on the drafts of this report before its publication.

THE FORUM ON EDUCATION ABROAD MISSION STATEMENT

The Forum on Education Abroad develops and disseminates comprehensive Standards of Good Practice for the field of education abroad. It promotes best practices and excellence in curricular design, engages in data collection and research, conducts program assessment and quality improvement, and advocates on behalf of its members and the field of education abroad. The Forum serves institutions and organizations that sponsor and support education abroad programs for students enrolled at U.S. colleges and universities. The Forum also collaborates with international member institutions and organizations to identify and facilitate best practices and standards for education abroad.

ABOUT THE FORUM ON EDUCATION ABROAD

Hosted by the campus of Dickinson College in Carlisle, Pennsylvania, The Forum on Education Abroad is the higher education organization for education abroad. Recognized by the U.S. Department of Justice and the Federal Trade Commission as the Standards Development Organization (SDO) for education abroad, The Forum's *Standards of Good Practice* are recognized as the definitive means by which the quality of education abroad programs may be judged.

The Forum's Quality Improvement Program for Education Abroad (QUIP) uses the *Standards* as part of a rigorous self-study and peer review quality assurance program that is available to all Forum institutional members. Forum members include U.S. colleges and universities, overseas institutions, consortia, agencies, and provider organizations.

The Forum's Professional Certification in Education Abroad program is intended for any and all colleagues in the field who want to certify their knowledge and expertise in the *Standards of Good Practice for Education Abroad*.

The Forum focuses on developing and implementing standards of good practice, encouraging and supporting research initiatives, and offering educational programs and resources to its members. Its mission is to help to improve education abroad programs to benefit the students that participate in them. It is achieving this goal by establishing standards of good practice, improving education abroad curricula, and promoting data collection and outcomes assessment, all to advocate for high quality education abroad programs.

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