Global Health Without Boundaries: Structuring Domestic and International Opportunities to Explore Global Health in a Graduate Internal Medicine Training Program

Marguerite A. Balasta, MD, Yogesh Khanal, MD†, John McGinniss, MD, Peter Moyer, MD, Tracy L. Rabin, MD, SM
Philadelphia, Pennsylvania, and New Haven, Connecticut

Increasing numbers of US medical school graduates transition each year into residency with interests that cut across clinical disciplines, and residency programs are recognizing the need to develop opportunities that support these interests. To meet this need, the Yale Department of Internal Medicine has developed a system of Distinction Pathways open to all Yale internal medicine trainees. These pathways have 2 specific goals: (1) to enrich the general curriculum for all residents by incorporating core content in these areas; and (2) to provide experiential learning opportunities and create mentorship and scholarship linkages in these areas for residents who have a specific interest in a particular area. This paper describes the process of developing the Global Health and Equity Distinction Pathway (GHEDP), which is designed to recognize and support the passion of residents with a strong interest in both domestic and international global health issues.

The development of the GHEDP was a complex process spanning a 2-year period and was officially launched September 2016. As this Distinction Pathway evolved, it became clear that the program should be flexible enough to fulfill the needs of residents with minimal global health exposure before residency, as well as those who enter postgraduate training with extensive prior involvement. One key strategy was to incorporate the learners into the GHEDP development process. It involved residents at all levels from each of the 3 internal medicine training programs (traditional, primary care, and combined internal medicine–pediatrics), as well as chief residents and faculty from various divisions. We expect that the resulting program will satisfy and challenge residents along a spectrum of global health experience.

In keeping with definitions of global health that are not bound by geography and that focus on vulnerable communities with limited resources, our program makes use of both domestic and international opportunities to explore global health concepts. Additionally, we addressed the need to balance the requirements of this new initiative with the administrative regulations that govern postgraduate medical training programs. In summary, the initiative was designed to support and structure resident interests while reflecting the ethos of our residency programs: first and foremost, to foster clinical excellence in internal medicine.

We, the authors of this manuscript, were part of the movement to establish Distinction Pathways at Yale and, in particular, were founding organizers of the GHEDP. Our aim is to describe the process by which the GHEDP was born in the Yale Department of Internal Medicine, our approach to core competencies, and the creation of a structured curriculum designed for medical professionals. This article acknowledges that similar efforts are

† Deceased June 20, 2016.

From the University of Pennsylvania, Perelman School of Medicine, Department of Medicine, Philadelphia, PA (MAB); Yale University School of Medicine, Department of Internal Medicine, New Haven, CT (YK, TLR); Hospital of the University of Pennsylvania, Division of Pulmonary, Allergy & Critical Care, Philadelphia, PA (JEG); and Fair Haven Community Health Center, New Haven, CT (PM). Address correspondence to T.L.R. (tracy.rabin@yale.edu).
developing at other institutions throughout the country, and we hope that a description of our efforts, challenges, and successes may help other programs working toward similar goals.

**HISTORICAL PERSPECTIVE: ROAD TO CREATING A DISTINCTION PATHWAY**

Before this most recent effort to create the GHEDP, there was a rich history of international and local global health activities with congruent goals at our institution. Starting in 1981, Yale was one of the first internal medicine departments in the country to provide funded opportunities for residents to undertake clinical rotations abroad as part of their training. Although the number of international partner sites has varied over the years, Yale started receiving funding from Johnson & Johnson corporate contributions in 2001 to provide administrative support and enable the development of more robust collaborations with a smaller number of partners. The program evolved into the Yale/Stanford Johnson & Johnson Global Health Scholars Program in 2010 and currently collaborates with clinical partners in South Africa, Rwanda, Uganda, Indonesia, Liberia, and Colombia.

Locally, a variety of community initiatives have been established throughout the years with whom our residents have become increasingly involved. For example, one of the Yale resident training clinics houses a resident-run and faculty-supervised adult refugee clinic, which collaborates with a New Haven–based nonprofit refugee resettlement organization. This is an entry point into the medical system in New Haven, where residents evaluate and provide medical care to newly arrived refugees before their integration into the general patient population at our training program clinics. Given the diversity of the population in our community, the range of services that are coordinated through specialty services throughout the Yale New Haven Health system are vast. A current list with descriptions of local and international initiatives that can be accessed by our trainees is outlined in Table 1. Of note, all of these opportunities existed before the establishment of the GHEDP and additional initiatives are in development; thus, a primary goal was to structure and coordinate this assortment of experiences to meet specific educational goals.

Given increasing levels of resident interest in global health, faculty champions developed a proposal in 2010 for a Global Health/Social Equity Pathway. Similar to the current GHEDP, this original proposal was designed to provide residents with the opportunity to spend dedicated time focusing on the care of underserved individuals, both locally and globally. Although the proposal was evaluated and approved by the internal medicine departmental education committee, this effort did not gain adequate political support to move forward. This was due, in part, to the assessment by departmental leadership that there were more pressing competing priorities at that time. Instructively, however, this first attempt had 2 specific shortcomings: (1) The effort originated from global health faculty and, although the resident training programs were supportive, they were not driving this innovation; and (2) the trainees were not involved in developing the proposal.

With time and growing numbers of incoming trainees with prior global health experience who had a desire to continue exploring this practice, it became important to the residency programs to formally support these aspirations. We wanted to recognize the dedicated volunteerism of our trainees participating in international and local community efforts and continue to cultivate their interests through a structured program.

In an effort to support the diverse passions of trainees outside of typical medical subspecialties, the residency program leadership initiated the development of the Distinction Pathways in 2014. This larger effort to create Distinction Pathways had several goals that the GHEDP strives to meet: provide structured clinical opportunities, enrich the general medical curriculum with didactic core content, and encourage scholarly activities in these areas (Fig. 1). At the time of this writing, the GHEDP (and two additional Distinction Pathways that focus, respectively, on research and medical education) has opened enrollment for the first group of internal medicine residents after 2 years of intensive planning and much anticipation; a fourth pathway focusing on quality improvement and patient safety is currently under development.

**GHEDP PROGRAM DEVELOPMENT**

**Initial Meetings.** Our first step was to define key stakeholders, conduct a needs assessment, establish goals and desired outcomes, and explore how we could leverage existing infrastructure and resources. Our group included a resident advisory committee of trainees representing all 3 internal medicine residency programs, chief residents, and faculty. These initial sessions formed the basis for follow-up discussions during which we established a foundation of meaningful language, a mission statement, and clear objectives of what we wanted to achieve for the
| Experience | Description | Credits |
|------------|-------------|---------|
| **General Clinical Activities** (achieve 10 credits) | | |
| Internal Medicine HIV Training Track | Three-year track within the Yale Primary Care Internal Medicine Residency Program focused on HIV medicine ([http://hivtraining.yale.edu](http://hivtraining.yale.edu)) | 10 |
| Elective in HIV Care/Urban Health | Two-week elective based in a multidisciplinary HIV outpatient clinic | 10 |
| Home Visit Elective | Two-week elective focused on developing skills and comfort with conducting primary care home visits | 10 |
| Community Care Van | Outreach/direct care program for early intervention and linkage to care for individuals in low-income neighborhoods | 2 per session |
| Refugee Clinic | Resident-run clinic that provides care to newly arrived refugees and links them to community providers | 2 per session |
| Center for Asylum Medicine Evaluation | Participation in forensic medical evaluation of asylum applicants | 2 per session |
| HAVEN Free Clinic | Student-run multidisciplinary primary care clinic for uninsured patients | 2 per session |
| **Immersive Clinical Opportunities** (achieve 30 credits) | | |
| Yale/Stanford Johnson & Johnson Global Health Scholars Program | Six-week elective based at 1 of 6 partner sites ([http://medicine.yale.edu/intmed/globalhealthscholars/](http://medicine.yale.edu/intmed/globalhealthscholars/)) | 30 |
| Indian Health Service (IHS) Elective | Rural, cross-cultural experience in providing inpatient and outpatient primary care at a federally supported IHS site | 10 per 2-week rotation |

| Experience | Description | Credits |
|------------|-------------|---------|
| **B. Didactics** | | |
| Interdisciplinary Seminars (achieve 10 credits) | | |
| Global Health Foundations Seminar | Weekly introductory seminar addressing key issues in global health research and practice | 2 per session |
| Topics in Global Medicine | Weekly student-led, case-based seminar focusing on key clinical issues in global health. | |
| Critical Issues in Global Health Seminar | Weekly seminar focusing on the health of vulnerable communities in LMICs, including the politics and governance of global health, and low-cost solutions | |
| Global Mental Health Program Seminar | Series of lectures focused on key issues in global mental health | |
| Global Health Night Out | Quarterly journal club/discussion sessions bringing together trainee and faculty discussants from different clinical disciplines/health professions around 1 topic | |

| Experience | Description | | |
|------------|-------------|---|---|
| **C. Scholarship: Project and Presentation** | | | |
| Global Health Project | Research OR Curriculum Building | Projects may involve hypothesis-driven, mentored investigation or curriculum development related to ongoing global health activities | Required |

(continued)
residency programs, as well as for the career development of individual trainees.

**Needs Assessment.** A critical aim of the GHEDP is to both guide and cultivate the passions and needs of our residents. The residency programs recognize that residents have a range of exposures in global health from nascent interests in underserved local communities to those with prior advanced training degrees in global health. Both the faculty supervisors and residents emphasized the need to make this distinction very practical so that trainees could graduate from the program with tangible skills and knowledge they could use in future jobs. Through the resident advisory committee, we identified goals that were shared by trainees of variable experiences and with differing career aspirations:

1. Develop marketable skill sets in advocacy, policy, research, and capacity building.
2. Grow clinical skills relevant to caring for vulnerable populations in both low- and high-resource areas (e.g., bedside ultrasound, asylum exam training).
3. Raise awareness of social justice issues.

We also had thoughtful discussions about the logistics of creating a program that could accommodate residents at all levels of interest and training. The Distinction Pathway should allow residents to enter the pathway at multiple points in training, be

---

**Table 1. continued**

| Experience                                      | Description                                                                                           | Required |
|-------------------------------------------------|-------------------------------------------------------------------------------------------------------|----------|
| Presentations                                   | Conference Presentation OR Manuscript Publication                                                     | Required |
| Dissemination Back to Target Community          | Demonstrate an implementable plan for sharing scholarship results with the subjects of that work     | Required |
| Global Health Night Out (Discussion Lead)       | Resident presenter of journal article and discussion lead for 1 multidisciplinary group session       | Required |
| Immersive Clinical Activity Presentation        | Lecture presentation related to immersive clinical activity—focus on linking clinical case to global burden of disease | Required |

**Figure 1.** Three Pillars of the Global Health and Equity Distinction Pathway (GHEDP).
flexible enough to vary effort throughout residency, and not interfere with the overall regulatory expectations of the residency program or lead to burnout.

**The Name and the Mission.** One of the most interesting steps in this process was developing a meaningful language describing global health that would effectively communicate our mission to the health care community and the general public. We reviewed core literature that served as background reading, specifically incorporating efforts that were already underway through the Consortium of Universities for Global Health. After several brainstorming meetings with the resident advisory committee as a whole and in smaller working groups, we named this pathway based on the 2009 Koplan et al definition of global health as

> …an area of study, research, and practice that places a priority on improving health and achieving equity in health for all people worldwide. Global health emphasizes transnational health issues, determinants, and solutions; involves many disciplines within and beyond the health sciences and promotes interdisciplinary collaboration; and is a synthesis of population-based prevention with individual-level clinical care.

The group felt strongly that the inclusion of the word *equity* in the title would indicate that the focus would include domestic as well as international global health issues. The mission statement and objectives of the GHEDP are also inclusive and reflective of these principles (Table 2).

**Evaluation of Existing Infrastructure.** An important task for the GHEDP founders was to identify and create a repository of preexisting opportunities relevant to global health at the university and in the larger local community. Although the Yale Department of Internal Medicine already had a rich history of collaboration with international and local programs, there were also multidisciplinary groups with similar interests operating in parallel silos across the Yale University community. Realizing we could create a richer experience by looking outside the department, we sought partnerships across the Yale health professions schools (Medicine, Nursing, and Public Health), local nonprofit organizations, and the local health department. We catalogued these resources and used them as a foundation for the GHEDP experiential learning requirements.

**APPROACH TO CURRICULAR COMPETENCIES**

The efforts at Yale to support and enhance global health interest among medical trainees have been occurring alongside a larger story of developing standards for global health education. The Global Health Education Consortium was founded in 1991 to improve the global workforce capacity to address vulnerable populations’ needs and set standards for high quality, culturally sensitive global health educational policies. As a separate endeavor, the Consortium of Universities for Global Health (CUGH) was established in 2008 in response to growing interest in global health among academic institutions. Recognizing the degree of common purpose and potential advantages of joining forces, CUGH formally merged with Global Health Education Consortium in 2011, and CUGH was maintained as the name of the organization. In addition to six other standing committees, an Education Committee was created to preserve the focus on developing resources for global health education and to support member institutions’ efforts to develop global health curricula.

Recognizing the wide variation in objectives, expectations, and evaluation systems across academic global health programs, the CUGH Education Committee formed a Global Health Competency Subcommittee in 2013. This group developed an initial set of cross-disciplinary global health competency domains, which were published in 2014. The subcommittee’s report proposed 4 levels of global health competency ranging from basic interest to career-oriented activities: Global Citizen Level (I), Exploratory Level (II), Basic Organizational Level (subdivided into Practitioner-Oriented and Program-Oriented Levels) (III), and Advanced Level (IV). A core set

---

**Table 2. Mission Statement and Objectives**

| The Global Health and Equity Distinction aims to train internal medicine residents to be leaders in health disparities and advocacy both nationally and abroad. Through a combination of immersive clinical experiences in resource poor settings, didactics on public health, and scholarly endeavors, our residents will be informed leaders in ethical and professional healthcare. Our graduates will develop core competencies in leadership, advocacy, ethics, and social justice by: |
|---|
| 0 Exploring definitions and building meaningful language surrounding the practice of global health |
| 0 Understanding population health and geographic burden of communicable and non-communicable diseases |
| 0 Learning to apply multidisciplinary and sustainable methods to issues impacting health globally |
| 0 Demonstrate evidence-based medicine and systems based practice in resource poor national and international settings |

---
of interprofessional domains and competencies that meet the needs of Levels I and III—Program-Oriented were presented in 2015, with the explicit acknowledgement that work remains to be done to develop discipline-specific Level III—Practitioner-Oriented standards, as well as Level IV standards for those who are committed to significant and sustained global health engagement.5

Because a portion of the GHEDP effort focuses on increasing the global health content in the curriculum for all internal medicine residents at Yale, features of the GHEDP are aimed at engaging physician trainees in Levels I, II, and III—Practitioner Oriented. Our expectation is that all residents in the department should have sufficient exposure to this content over the course of their training, that they should possess a solid Global Citizen Level (I) - if not an Exploratory Level (II) - understanding of key issues that affect the health of vulnerable populations around the world. The department has always required that residents returning from international clinical rotations give noon conference presentations to their colleagues about the experience, as part of the general residency curriculum. In order to fulfill the GHEDP requirements (Table 1), these presentations will be structured so as to connect a clinical case from the rotation site to domains and specific competencies at the Global Citizen Level. This change to the conference structure is being initiated in the 2016-2017 academic year, and this system will be evaluated by the GHEDP leadership.

All of our residents provide clinical care in a culturally and socioeconomically diverse setting, and 30%-40% of them will undertake at least 1 clinical rotation abroad during training. Therefore, we expect that many of our residents will achieve the Exploratory level (Level II) of global health competency. Those residents who elect to participate in GHEDP activities are expected to be those who intend to have some degree of future professional activity with colleagues from a variety of disciplines in the field of global health. For those trainees dedicated to pursuing significant careers in global health, defined as the Advanced level (Level IV) in the CUGH competency model, the GHEDP curriculum gives them the foundation and opportunity to expand those skills. To justify the time spent on these activities as part of residency training in general internal medicine, however, it is helpful to reconcile these global health competencies with the existing system of residency training competencies.

The Accreditation Council for Graduate Medical Education (ACGME) is a nonprofit organization that sets quality standards for graduate medical training across all specialties and subspecialties for physicians with an MD degree. Training programs undergo a voluntary evaluation and review process based on published standards in order to achieve ACGME accreditation. As a key component of the Common Program Requirements, the ACGME requires that all programs integrate the following 6 core competencies into their curriculum: Patient Care, Medical Knowledge, Professionalism, Interpersonal and Communication Skills, Practice-based Learning and Improvement, and Systems-based Practice.6 Our important task as medical educators was to align the ACGME core competencies for training in internal medicine7 with the CUGH global health competencies in designing the core curriculum and experiential learning opportunities of the GHEDP. See Table 3 for our proposed areas of alignment.

**DISTINCTION DESIGN AND REQUIREMENTS**

As mentioned earlier, the design of the GHEDP is based on 3 educational pillars with separate requirements: hands-on clinical experience, participation in didactics on core curricular topics, and completion and dissemination of scholarly endeavors. To provide objective and fair evaluation of resident effort, all of the Distinction Pathways use a credit-based system to track participation in these requirements.

The Distinction Pathways are meant to be rigorous but attainable during a 3-year residency. Meeting the current ACGME duty hours requirements for internal medicine training programs requires that residents work no more than 80 hours per week (inclusive of in-house call and moonlighting) and have at least 1 day off per week, averaged over a 4-week period.8 Additional requirements specify the minimum amount of time off between clinical shifts and the maximum duration of clinical duty periods.

All internal medicine trainees have the opportunity to participate in the GHEDP; however, residents are not asked to make a commitment until the fall of their second year. Because participation in a Distinction Pathway is voluntary, the time spent in meeting the nonclinical GHEDP requirements (such as attending lectures or completing scholarly projects) does not technically count toward ACGME duty hours. However, this program was developed to support and grow the personal interests of our residents, so we feel strongly that participation in the GHEDP should enhance resident...
wellness and not contribute to burnout. Thus, resident participants will be required to be in good standing and meet the requirements of their individual programs in order to ultimately receive departmental recognition for successful completion of Distinction Pathway requirements.

Rather than being burdensome, we designed the GHEDP to supplement and bolster the professional excellence of our trainees. We have a support network of individuals to assist with administrative issues (including monitoring of work hours and program standing), provide career guidance, and facilitate mentorship connections. The Office of Global Health has faculty and administrators who support this educational mission through existing funding mechanisms, and we are working to secure dedicated funding for the GHEPD from the Department of Medicine.

### Table 3. Aligning Competencies

| ACGME Competency Domains | CUHG Competency Domains (Level I—Global Citizen and Level III—Program Oriented) |
|--------------------------|---------------------------------------------------------------------------------|
| **Patient Care and Procedural Skills:** Provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. | **Globalization of Health and Health Care:** Focuses on understanding how globalization affects health, health systems, and the delivery of health care. |
| **Medical Knowledge:** Demonstrate knowledge of established and evolving biomedical, clinical, epidemiological and social-behavioral sciences, as well as the application of this knowledge to patient care. | **Health Equity and Social Justice:** The framework for analyzing strategies to address health disparities across socially, demographically, or geographically defined populations. |
| **Professionalism:** Demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles. | **Global Burden of Disease:** Encompasses basic understandings of major causes of morbidity and mortality and their variations between high-, middle- and low-income regions, and with major public health efforts to reduce health disparities globally. |
| **Interpersonal and Communication Skills:** Demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals. | **Social and Environmental Determinants of Health:** Focuses on an understanding that social, economic, and environmental factors are important determinants of health, and that health is more than the absence of disease. |
| **Practice-based Learning and Improvement:** Demonstrate the ability to investigate and evaluate the care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and lifelong learning. | **Ethics:** Encompasses the application of basic principles of ethics to global health issues and settings. |
| **Systems-based Practice:** Demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care. | **Professional Practice:** Refers to activities related to the specific profession or discipline of the global health. |
| **Sociocultural and political awareness:** Conceptual basis with which to work effectively within diverse cultural settings and across local, regional, national, and international political landscapes. | **Collaboration, Partnering, and Communication:** The ability to select, recruit, and work with a diverse range of global health stakeholders to advance research, policy, and practice goals, and to foster open dialogue and effective communication with partners and within a team. |
| **Systems-based Practice:** Demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care. | **Program Management:** The ability to design, implement, and evaluate global health programs to maximize contributions to effective policy, enhanced practice, and improved and sustainable health outcomes. (Level III only) |
| **Systems-based Practice:** Demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care. | **Strategic Analysis:** The ability to use systems thinking to analyze a diverse range of complex and interrelated factors shaping health trends to formulate programs at the local, national, and international levels. (Level III only) |
| **Capacity Strengthening:** Sharing knowledge, skills, and resources for enhancing global public health programs, infrastructure, and workforce to address current and future global public health needs. (Level III only) | **(Level III only)** |

ACGME, Council for Graduate Medical Education; CUHG, Consortium of Universities for Global Health.
Each participating resident is responsible for maintaining a portfolio of their activities. Residents will complete reflections to document their participation in required activities and connect those experiences to the CUGH global health competencies (as detailed earlier). For this purpose, all of the Distinction Pathways will use the existing system for tracking resident progress, an online portal that provides access to curricular information, allows residents to register duty hours and procedure logs, facilitates resident evaluations, and allows training program leadership to review and manage all of these data. Additionally, residents will be asked to provide feedback on the GHEDP requirements and process in an ongoing manner.

Resident progress toward the distinction will be reviewed semiannually by the GHEDP Faculty Board, which is composed of faculty leaders of the GHEDP, two global health chief residents representing all 3 training programs, and the scholarly mentors of the individual residents. This board acts similarly to a thesis committee that supervises resident progress, reviews the completed portfolio of each resident, and assesses whether she or he has met the expectations of the GHEDP. Successful achievement of the Distinction in Global Health and Equity is contingent on final approval by the Executive Education Committee of the Department of Internal Medicine. This committee is headed by the vice chair for education and academic affairs and includes the program directors and associate program directors of all 3 residency programs, as well as other education leaders within the department.

**MOVING FORWARD**

After 2 years of planning, the GHEDP has enrolled the first group of residents. Although the coming years will certainly bring to light unanticipated lessons and challenges, we look forward to them. Throughout this process, we were often reminded of the importance of multidisciplinary partnerships and the advantages of using existing resources to structure a balanced program. We recognize that we should continually examine the rationale and support for the existence of a program like this. Because this GHEDP was driven forward largely by the trainee and faculty champions, we will have to do frequent monitoring and evaluation to ensure we are meeting resident needs. Because trainees themselves played integral roles in designing the mission and structure of the GHEDP, we look forward to their feedback, to their continued involvement in refining the program, and to assessing the impact of the GHEDP on their career paths in the years to come.

**REFERENCES**

1. Gupta AR, Wells CK, Horwitz RI, Bia FJ, Barry M. The International Health Program: the fifteen-year experience with Yale University’s internal medicine residency program. Am J Trop Med Hyg 1999;61:1019–23.

2. Terasaki G, Annamalai A. Caring for refugee patients: an exceptional education. SGIM Forum 2015;38(2):9–11.

3. Koplan JP, Bond TC, Merson MH, et al. Towards a common definition of global health. Lancet 2009;373:1993–5.

4. Wilson L, Callender B, Hall TL, Jogerst K, Torres H, Velji A. Identifying global health competencies to prepare 21st century global health professionals: report from the global health competency subcommittee of the consortium of universities for global health. J Law Med Ethics 2014;42(Suppl 2):26–31.

5. Jogerst K, Callender B, Adams V, et al. Identifying interprofessional global health competencies for 21st-century health professionals. Ann Glob Health 2015;81:239–47.

6. Accreditation Council for Graduate Medical Education (ACGME) Common Program Requirements. Chicago, IL: ACGME. Available at: http://www.acmg.org/Portals/0/PFAssets/ProgramRequirements/CPRs_07012016.pdf; 2016. Accessed August 16, 2016.

7. Accreditation Council for Graduate Medical Education (ACGME) Program Requirements for Graduate Medical Education in Internal Medicine. Chicago, IL: ACGME. Available at: http://www.acmg.org/Portals/0/PFAssets/ProgramRequirements/140_internal_medicine_2016.pdf; 2016. Accessed August 16, 2016.