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Reflective Piece

PEDAGOGY IN HEALTH PROMOTION

Pedagogy in Health Promotion: The Scholarship of Teaching and Learning
1–18

DOI: 10.1177/2373379916673375
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Turnstile Careers Between Academia and Practice

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Abstract

This reflection on the academic and practice careers—my own and some notable health promotion professors'—supports my suggestions about what makes good teaching and research faculty members in professional schools seeking to prepare next generations of practitioners for health education and health promotion careers. From the perspective of pedagogy in health promotion, the preparation of students for their roles in practice—in whatever blend of policy, planning, management, delivery, or evaluation of programs—should emanate, where possible, from field experience and reality-tested theoretical and evidence-based precepts. Just as usable evidence-based practices need to include practice-based evidence, so too must usable pedagogy for practitioners be built on periodic exposure and experience of instructors in contemporary practice. The concept of "turnstile careers" is introduced to address this need for periodic immersion of faculty in practice positions with responsibility for programs.

Keywords

faculty preparation, practice-based evidence, teaching about practice

With the advent of this new journal, one is drawn to ask, what should be different about "the scholarship of teaching and learning" in health promotion from other fields and from the past of health education? Professors in health education and health promotion carry a burden of *teaching* responsibility, similar to those teaching medical, nursing, dental, and other health professions, to bring their experience from practice to the classroom, and their students into the settings of practice for learning experiences. Other distinguished professions, such as law and engineering, require clerkships and apprenticeships. With the rapid growth of academic programs for Master of Public Health (MPH) and other graduate degrees in health promotion, and even more rapid for undergraduate courses and new baccalaureate degrees, faculty have had to be recruited directly from their own graduate training with little or no experience in the field before being thrust before classrooms of inexperienced students. Sometimes the classrooms include students with more experience than their faculty. Similarly, their *research* as faculty members needs to be informed by firsthand and periodic exposure to the problems, practice, and political circumstances that give rise to the research questions and that present the realities in which the results of their research would be applied. The proposed concept here of "turnstile career" captures this need for periodic immersion (back and forth) as we journey through our teaching, research, practice, policy, and service positions and responsibilities.

Pedagogy and Health Promotion

The teachers of health promotion need preparatory and periodic exposure to these reality-testing experiences to refresh their understanding of the applicability of theories and evidence as the conditions of practice change. Changing sociopolitical, economic, and technological conditions of practice leave professors increasingly out of touch with the dynamic relationships among members of the current "Iron Triangle" of legislatures, bureaucracies, and interest groups (Adams, 1981). As professionals interested in public health policy, health promotion practitioners may assume one or more of the roles of analyst, advisor, or advocate (Fritschler, 1969). This makes exposure of their teachers to these and the related roles of program planner, manager, communicator, and evaluator in real time in real communities important to their effective mentorship of health promotion students.

If the counterargument to making professors more conversant with practice is that they can lean on the published

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literature of public health to provide the real-world examples students need, this is likely to be a poor substitute, as shown by Stover and Bassett (2003) in their critique of, and recommendations to, the *American Journal of Public Health*. Even if the published literature accurately represented the problems, practices, and players in the field, reading about them could never fully compensate for periodic opportunities to observe and experience it in the full trial-and-error process of grappling with it in real time and in living community contexts. Similarly, most of the other journals in health promotion and public health have been found lacking in providing sufficient detail in the description of interventions tested and conditions in which they were tested to enable replication or adaptation in other populations and contexts (Green, 2007a, 2007b, 2008a, 2008b; Green & Glasgow, 2006; Green, Glasgow, Atkins, & Stange, 2009; Green & Ottoson, 2004).

Given these limitations of many of the public health, school health, and health promotion journals, engineering is a model worth emulating (e.g., Livingood et al., 2011) insofar as the methods of engineering begin with an assessment of the setting and circumstances of the practice situation, rather than a "best practice" or evidence-based practice from unrepresentative samples and settings, or studies designed primarily for theory testing with all their hothouse experimental controls (Green, 2001).

Another counterargument to practice exposure is that professors are hired with their ideologies and visions of how practice should be taught, based on their own research and reading, so they should be unfettered in exercising these ideologies as a matter of academic freedom. This view is recently challenged by Rachel Ellaway (2016):

> If . . . we do not acknowledge the ways in which ideology shapes our work then we are acceding to the tendency to present our subjects, questions, methods, and findings as inevitable and intrinsically valuable. Such essentialism (from any quarter) is not simply divisive; it diminishes the very values and beliefs that we do hold in common. Science [like practice] is not a fixed and immutable frame of inquiry; it is an intrinsically dynamic and contested way of thinking about and exploring the world, and about guiding the ways in which we act within it. (p. 503)

As Gambescia reminded me in his preliminary review of this article, "When educators in workforce development combine practice exposure with extant scholarship it gives the instructor language to use in the teaching/learning process and insights into how to impart these health promotion terms and concepts in the classroom." Instructors learn from work in the field how to make the jargon more meaningful, contemporary, and understandable to the learners, rather than sleepwalking through theories and "best practice" guidelines without providing examples and citing exceptions.

Finally, the need for periodic reexposure of faculty to practice and policy settings is evidenced by the frequency of national and international committees to revisit the question of what practitioners need to be able to do. These historical changes are traceable through competency update projects (e.g., Airhihenbuwa et al., 2005), role delineation of health education practitioners (e.g., Cleary, 1988; McKenzie et al., 2016; Taub, Birch, Auld, Lysoby, & Rasar King, 2009; Wolle, Cleary, & Stone, 1989; Zapka, 1985), and certification requirements and accreditation standards (e.g., Allegrante, Airhihenbuwa, et al., 2004; Cottrell et al., 2012; Taub et al., 2014).

In this reflection on the careers of selected health education, behavioral science, and health promotion professors who have rotated periodically or variously to and from their academic and practice and policy positions, I examine the important roles they can convey to their students and insights they can bring to their research and writing based on their varied exposure to problems and solutions in practice settings.

Source of Observations

Reflecting back on the field since my own recent retirement, I have a growing appreciation of how experiences have shaped the triangulated teaching-research-practice field of interactions central to the continuity of careers of many of my mentors, students, and postdoctoral fellows and of others whose work I have observed and admired. These reflections on familiar career trajectories—the most familiar one (my own) in more depth at the early stages where the electronic paper trail is less accessible—add up to a case to be made for the availability, productivity, and survivability, if not the causality, of practice experience enhancing academic careers.

While I have little evidence to offer from the careers of others on the case to be made for improving classroom teaching through field experience of their careers, their success in climbing academic ladders between their experiences in responsible positions in government and voluntary agencies attest to the utility of such experiences in addressing the combined research, teaching, and service criteria of academic advancement. They illuminate, thus, a turnstile pathway to professional development. At the very least, these anecdotal observations attest to the claim I am making for "turnstile academic-practice careers" as having done no harm to advancement of such careers, *probably* having enriched their teaching, and *certainly* having broadened their contributions to the field through their blend of enriched teaching, research, service, publications, and professional leadership.

Personal Case Study

In my own case, teaching first at the University of California (UC) at Berkeley and then at the Johns Hopkins Bloomberg School of Public Health, I leaned heavily on my early-career field placements. I had health education field experiences in local (county health department), state, and federal agencies before my MPH degree, and 2 years in Dacca, Bangladesh, before my doctorate and first academic appointment. The former included field training in the California State Health Department under the supervision of Scott Simonds, DrPH, who had taught at Berkeley and subsequently became a professor and chair of health education at the University of Michigan School of Public Health (see his Society for Public Health Education [SOPHE] Presidential address in Simonds, 1972). His career trajectory was a role model for me, as were those of some of my other faculty mentors at Berkeley: William Griffiths, Dorothy Nyswander, Beryl Roberts, Mayhew Derryberry, Sigrid Deeds, Carol D'Onofrio, Helen Ross, Sarah Mazelas, Paul Mico, Jeannette Simmons, and Jerome Grossman. All brought varied, illustrative, and engaging experiences from practice to their teaching. Griffiths and Roberts provided me the opportunity to serve as a Ford Foundation Project Associate on their Dacca Family Planning Project.

My overseas experience working on the design and evaluation of family planning programs in Bangladesh (when it was still East Pakistan) is chronicled in various publications that launched my academic career as a lecturer at Berkeley (e.g., Green, 1968, 1969; Green & Jan, 1964; Green & Krotki, 1966, 1968), and some completed during my assistant professorship at Johns Hopkins (Green, 1970a, 1970b, 1970c; Green, Gustafson, Griffiths, & Yaukey, 1972). These, along with my dissertation on domestic health and methodological research issues (Green, 1970, 1970a, 1970b, 1970c), set the stage for my first independent classroom teaching experience, while creating a curriculum for health education in the departments of Public Health Administration and Population Dynamics at Hopkins. A more compelling reading of this kind of experience is found in a recent book by Al Sommer (2013), later the Dean of the Johns Hopkins Bloomberg School of Public Health, who was instrumental in persuading Michael Bloomberg to focus some of his philanthropic efforts in public health.

Sommer's "10 Lessons for Public Health" from his parallel Bengali experience (Sommer, 2013), include many of the points I have sought to draw and promote from my "turnstile" career, expressed here from his table of contents as his chapter titles (p. viii):

Lesson 1: Go Where the Problems Are
Lesson 2: Get Into the Field
Lesson 3: Forget the Job Description
Lesson 4: Don't Count on Things Staying the Same
Lesson 5: Follow Most, but Not All, of the Rules
Lesson 6: Collect Good Data: Even if You Don't Yet Know What Important Questions They May Answer
Lesson 7: Remember Your Humanity
Lesson 8: Use Data to Set Policy
Lesson 9: If You Think You're Right, Keep Pushing
Lesson 10: Take the Long View

True, both Sommer and I have drawn inspiration and these lessons from our experience in developing countries—lessons that we now seek to impart to public health professionals with an academic and teaching orientation. My purpose in this reflection, however, is not to emphasize the exotic aspects of work in developing countries. I must acknowledge, nevertheless, that the drama and imagery of solving exotic public health problems, were stimulated from my undergraduate reading of Berton Roueché's *Eleven Blue Men* (1953) and *The Incurable Wound* (1954) about the mostly domestic detective fieldwork of epidemiologists. So too can we trace the accelerating wave of new undergraduate and graduate students to schools and programs of public health in part to the fascination and inspiration from Hollywood films (e.g., the 1993 film, *And the Band Played On* about the HIV/AIDS epidemic, the 1995 film *Outbreak*, about a fictional Ebola-like virus in Zaire, spreading to a town in the United States; *Contagion*, a 2011 film in which the Centers for Disease Control and Prevention [CDC] scrambles to find the cause and a way to stop the pandemic of a deadly avian flu–like disease); and news reports about new and rapidly growing diseases, such as Ebola, Zika, and diabetes, and their related social and behavioral risk factors.

After drawing heavily on my Bengali experience for case studies and illustrative examples in my early years of teaching at Johns Hopkins, I found that those examples were getting stale and limited in scope. My first recourse was to open myself to consultations with public health agencies in Baltimore and then, as my confidence grew, to state, national, and international organizations more widely. But for teaching purposes, consultation is a superficial substitute for being actively engaged in and responsible for program planning, delivery, and evaluation.

Grants helped support a second recourse of developing and testing program concepts and interventions; training the interventionists, engaging patients, community groups, and graduate students in shaping the programs; and submitting the programs to rigorous trials to assess both the process and the outcomes. These projects and agency relationships provided our graduate students the opportunities to conduct master's thesis and doctoral dissertation research. Our Hopkins teams of faculty and

students were evaluating theoretical concepts and programs of our own invention through the relationships, so teaching examples and models for planning and evaluation, presentation to the President's Committee on Health Education and even testimony to a Congressional Committee proliferated (e.g., Green, 1974 [first publication of the PRECEDE model]; Green, Kreuter, Deeds, & Partridge, 1980; Green & Lewis, 1986). But our looser connection to nonresearch, nongrant–supported practice for which most of our MPH students were pursuing their classroom studies meant that the gap between faculty experience and students' needs for recent practical examples remained.

Despite our research-generated and National Institutes of Health (NIH)–supported initiatives for producing evidence-based practices, I grew increasingly uneasy with the question of whether the products of such research could be applied in the typical setting or taken to scale across settings. Similarly, with the limitations and fading relevance of my old examples after a decade of teaching, I became less comfortable in my classroom teaching. Seeing this also in other midcareer professors made me aware that I was due for another immersion in the realities of practice. Gambescia et al. (2013) have shown more recently in the opening phase of the advanced certification for health education MCHES (Master Certified Health Education Specialist) examinations that the health education faculty who had much trouble demonstrating actual practice of health education competencies were the ones who were only teaching and not combining this with any practice.

Such is the story of my own early-career foundation in experience, my use of that experience to great advantage in the first 10 years of my teaching at Berkeley and Johns Hopkins, my gradual substitution of consultations and research grants to simulate experience without full-time immersion in program responsibility, and my awakening to the eroding relevance for teaching of my direct experiences from an earlier decade.

In my last years at Hopkins I served as Assistant Dean for Continuing Education, in planning and administering professional education programs, and had the opportunity to carry out a consultation study for the federal Office of Planning and Evaluation, Office of the Assistant Secretary of Health (Green, 1978). The immersion and analyzing the complexities and structures of federal policies and programs in, or relevant to, health education were a wake-up call to my own naiveté and superficial understanding of how health education was perceived, used, and evaluated by federal agencies. As such, it made me susceptible to the offer that followed soon after from the Assistant Secretary of Health and the Director of the Office of Disease Prevention and Health Promotion (ODPHP), Michael McGinnis, to take a leave of absence from my Hopkins professorship to head the federal Office of Health Information and Health Promotion (OHIP). That story is told in another recent invited reflection (Green, 2016).

Since these early turnstile moves from academia to practice and back, I tried to remain receptive to opportunities to leave my academic positions for periodic immersions in policy and practice positions. This has sometimes led to the opportunity to return to the same university and to resume my teaching and research there, as at Berkeley and Hopkins, or to a Visiting faculty appointment for an interim year, as at Harvard for the year following my federal ODPHP/OHIP stint.

My subsequent rotations from practice positions have included (a) going to another university to start a research and development center, as at the University of Texas Health Science Center at Houston (UTHSC; 1982-1988) after ODPHP and Harvard and (b) later starting, at the University of British Columbia (1991-1999), an Institute for Health Promotion Research after a 2-year appointment as Vice President and Director of a national health promotion program for the Henry J. Kaiser Family Foundation (1988-1991). From Vancouver, British Columbia, I returned from academic Canada to the CDC for 5 years before (c) my final rotation back to academia at the University of California at San Francisco (UCSF) for a half-time professorship (the other half devoted to speeches, consultations, state and national committee and board memberships, and my gradually paced retirement).

It might help obviate the fear of some academics that they would not be able to return to academia at the same rank, to know that each of my academic rotations since leaving Hopkins as a professor has resulted in a full professor appointment at another university. All the other cases described below have returned to their same university to resume at or above the rank they left for their practice rotation. As described in some detail in my other recent reflection (Green, 2016), the Intergovernmental Personnel Act (IPA) provides for government agencies to pay universities the full salary and benefits of professors and others they bring to government for time-limited appointments. This IPA arrangement does not obligate the professor to return to that same university, which would likely have paid someone else with that salary release to carry the absent professor's teaching load.

From Vancouver, British Columbia, I returned to a practice position at the CDC to codevelop with Michael Eriksen a WHO (World Health Organization)–CDC Collaborating Center on Tobacco Control, and then became Acting Director of the CDC Office on Smoking and Health while Eriksen took a leave to go to WHO Geneva (a rotation worthy of another reflection as Eriksen has since become the founding Dean of a new School of Public Health at Georgia State University). While at CDC, I was appointed by the William Clinton Administration to represent CDC on the U.S. delegation to the Framework Convention on Tobacco Control, I but resigned when the

George W. Bush Administration arrived before the third convening of the delegations in Geneva and changed our negotiating positions. My last roles at CDC were as Director of the Office of Science and Extramural Research and Associate Director for Prevention and Academic Partnerships under the Public Health Practice Program Office. It was in the later role that I began reflecting more broadly on the academic–government relationships (e.g., Baker et al., 2005; Green, 2001, 2007a, 2007b).

From CDC, thinking I was ready for retirement, I engaged two half-year Visiting Professorships and returned home to the San Francisco Bay Area to a part-time adjunct professor role at the UCSF Department of Epidemiology and Biostatistics, and as Program Leader for Social and Behavioral Sciences, which morphed into a coleader role with Rena Pasick, DrPH, of the Society, Diversity and Disparities Program of the Cancer Center at UCSF. But at this point, my academic role had involved little classroom teaching. My practice rotations, however, served me well in mentoring of PhD students, postdoctoral fellows, and junior faculty. These variations on classroom teaching are part of what has shaped my reflections on this topic.

Other Case Studies and Rewards for Their Efforts in Practice

Beside the observations and potential lessons I have drawn from the turnstile of my own career between academia and practice, I have observed the rich content of the writing by, and students' response to, others in this field as they have brought their experience from practice to the classroom and to their academic research. Examples of these will be described briefly below. The scope of their work raises the question of the academic rewards in promotion and tenure for their efforts outside their university, in addition to or in spite of their improved teaching. The question has been debated in the academic literature (e.g., Aday & Quill, 2000; Council of Public Health Practice Coordinators, 1999; Nora et al., 2000), but I intend to show here that these individuals not only returned to academia from practice and policy roles but also completed their careers at the top of their academic ladders.

Variations on the Uprooting Rotation

Community-Based Participatory Research. Beside turnstile rotations described in my own and others' careers that involved absences from and returns to academia, alternatives to leaving academia for immersion in field research and practice have been demonstrated by faculty who have served, and "embedded" themselves in, community practice situations with community-based participatory research (CBPR). Prominent examples include Meredith Minkler and Robin Baker at Berkeley, Margaret Cargo and Mark Daniel at the University of South Australia, Ann George and James Frankish at the University of British Columbia, Nina Wallerstein and Magdalena Avila at University of New Mexico, Bonnie Duran at the University of Washington, Robert Aronson formerly at the University of North Carolina (UNC) at Greensboro, Vivian Chávez at San Francisco State University, Stephanie Ann Farquhar at Portland State University, Stephen Fawcett at University of Kansas, Scott Olds at Kent State University, Jane Springett at Liverpool John Moores University in England, and Carolyn Wang at the University of Michigan (see their respective chapters and appendixes in Minkler & Wallerstein, 2008).

Similar examples include Guadalupe X. Ayala, then at UNC Chapel Hill, now at San Diego State University as Associate Dean for Research in the College of Health and Human Services, Professor in the Graduate School of Public Health, and Co-Director of the Institute for Behavioral and Community Health, where she was presented with the Outstanding Faculty Award for the College of Health and Human Services; Elizabeth A. Baker at St. Louis University School of Public Health; Adam Becker at Tulane University School of Public Health and Tropical Medicine; Linda Burhansstipanov from California State University at Long Beach and University of California–Los Angeles (UCLA); Barbara Israel, Amy Schulz, and Edith Parker at the University of Michigan; Eugenia Eng at UNC Chapel Hill; and Ellen D. S. López at University of Florida College of Public Health and Health Professions. All these describe their varied CBPR experiences in their respective chapters in Israel, Eng, Schulz, and Parker (2005).

Evaluation and Case Studies of Programs. Many others have substituted community-based evaluations of existing or collaboratively developed programs for their field experience or at least field exposures. These are to be encouraged as the mainstay and distinguishing feature of an underappreciated literature of our journals. The tendency of the behavioral health science journals is to favor theory-testing studies with random assignment of often-unrepresentative subjects to controlled trials designed mainly to test theories or produce "evidence-based practices" rather than practice-based evidence (Green, 2001, 2006, 2007b; 2008a, 2008b; Green et al., 2009). For this reason, I surely would not want the theme of this reflection on the need for turnstile careers from academia to practice and back to discourage continued commitment of the field to evaluations producing practice-based evidence. A variation on formally constructed evaluations, faculty observation, and case study of practice (assessment of needs, program planning, management of personnel and agency partnerships, program implementation, and various forms of quality control and evaluation) can enrich the teaching by the faculty conducting such case studies and the building of a stronger case study teaching tradition in academic programs (Cleary, Kichen, & Ensor, 1985; Kreuter, Lezin,

Kreuter, & Green, 2003; Livingood et al., 2013; Pluye, Potvin, Denis, Pelletier, & Mannoni, 2005; Richard et al., 2004; Yin, 2009).

University-Based, Community-Focused Centers and Institutes

A prominent hybrid of community-engaged careers in recent decades has been in community-engaged research centers or technical assistance providers to health agencies in their communities. The most institutionalized of these in public health has been the congressionally mandated university-based Centers for Research and Demonstration of Health Promotion and Disease Prevention (Green, 2006, 2007a; Stoto, Green, & Bailey, 1997). The Prevention Research Centers, as they have come to be called, have provided many faculties with opportunities and at least partial funding to be engaged more actively with community agencies, programs, policies, and populations.

William Livingood, PhD. William Livingood's faculty appointment at the University of Florida, College of Medicine-Jacksonville, included Director of the Institute for Health, Policy and Evaluation Research at the Duval County Health Department. It provides a prime example of this form of institutionalized university- and community-based turnstile (Livingood, Goldhagen, Bryant, Harmon, & Wood, 2014). He has been a principal or coprincipal investigator on numerous grants from NIH, CDC, HRSA (Health Resources & Services Administration) and nongovernment foundations funding community-based, applied research, and evaluation projects. In addition to applied community studies in tobacco control, HIV/AIDS, maternal and child health, obesity prevention, and workforce development, his recent work has been with practice-based research networks (Livingood, et al., 2015), which merge management science-based "quality improvement" with social science–based evaluation (Livingood et al., 2013; Woodhouse et al., 2013) and provide important innovations in practice-based and implementation research. This combination of academic and practice roles has led to his leadership in examining how the academic preparation, experience, and professional practice of other relevant professions can inform how health education can emulate some of the most successful models of professionalization, research, and practice (e.g., Livingood et al., 2011).

Consulting and Career-Long Single Rotations to Senior Administrative or Policy Positions

Others have gained an ongoing or at least periodic refresher on problems and solutions in policy and practice through consulting and serving on community, state, national, and international boards and advisory committees. But the fuller immersion in practice without the repeated turnstile rotations can be seen in some who have left academia and immersed themselves more extensively over most of their careers in a single voluntary health or other agency leadership positions, then finally returned to academia as a capstone to their careers to write and teach about their experiences for the field. Their ultimate return, of course, made them the senior, go-to faculty member of their departments on matters of policy and practice.

John Seffrin, PhD. John Seffrin, for example, as a professor of health education at the Indiana University (IU), dedicated himself to decades of voluntary work at local, then state regional, and national Cancer Society committees, and eventually as full-time National Director and CEO of the American Cancer Society (ACS; Seffrin, 2013; Seffrin et al., 2011). He finally returned to IU to bring his turnstile career full circle.

Marshall Kreuter, PhD. Marshall Kreuter provides another example of having an established academic position, climbing the academic ladder from Assistant Professor to Associate Professor and head of the health education division at the University of Utah, winning the campus-wide teaching award twice, but then deciding in midcareer that he needed a retooling in practice-based research and evaluation methods. He came to Hopkins for a midcareer postdoctoral fellowship with me. This led to our collaboration on the first edition of *Health Education Planning: A Diagnostic Approach* (Green et al., 1980), and our continued development of the PRECEDE–PROCEED model over the subsequent four decades and three editions of the textbook (Green & Kreuter, 2005—see the preface for the model's history of development, testing, and application, and other faculty and students involved). On his return to Utah, he was recruited to the Utah State Department of Public Health to head the Bureau of Health Promotion, where he led and launched one of the forerunners of CDC's Behavioral Risk Factor Surveillance System. Soon after returning to his university to chair his department, he was recruited to CDC to head the Bureau of Health Education, which was transitioning to a new Center for Chronic Disease Prevention and Health Promotion. Under the new Center, Kreuter became head of the unit developing and overseeing the Planned Approach to Community Health, based partly on PRECEDE–PROCEED and chronicled in Kreuter (1992; Green & Kreuter, 1992). The national mission of his Division of Chronic Disease Control and Community Intervention was to conduct surveillance, carry out epidemiologic studies, and provide technical assistance to all states in the delivery of effective health promotion and disease prevention programs in the areas of cardiovascular disease, cancer,

and other diseases affecting the elderly. This involved approximately 100 professional staff and an annual budget of over $70 million. Following an Institute of Medicine (National Academy of Science) report reviewing the first 10 years of the legislatively mandated, university-based Prevention Research Centers (Stoto et al., 1997), CDC assigned Kreuter to head a unit to guide the centers to a more community-based practice rather than their overly academic research orientation. Under Kreuter's leadership, the Prevention Research Centers returned to their original mandate of a more community-based, practice-based research orientation (for a commentary on this, see Green, 2007a).

During another turn of the turnstile, Kreuter set up a private consulting firm, Health 2000, and led an effort to produce a second edition of his widely used textbook *Health Promotion Ideas That Work* (Kreuter et al., 2003). This is emblematic of his storytelling skills and his translation of his years in practice to the benefit of students trying to imagine what practice is like, the problems encountered, the solutions explored, and the implementation and evaluation of programs to address them.

In a final return to academia, at Georgia State University, Kreuter became a professor in the new Institute of Public Health, which he helped Michael Eriksen (see below) take to an accredited School of Public Health. He received one of the first and largest NIH grants on CBPR, "Accountable Communities: Healthy Together" and another on "Intervention to Reduce the Non-Emergency use of 911/EMS in Urban Atlanta." He resumed his always-appreciated teaching from a practice-informed perspective before retiring.

Repeated Rotation Turnstile Careers

Another pathway of turnstile careers that have repeatedly brought health promotion faculty to responsible practice positions and then back to their university teaching and research warrants the remainder of the space of this reflection. Here are some more detailed cases to illustrate the pattern and the contributions their service has made to pedagogy in health promotion.

Lloyd Kolbe, PhD. Lloyd Kolbe acquired his PhD from the University of Toledo, started his career as an assistant professor in health science at the University of Northern Colorado, became Director of School Health Education for the National Center for Health Education (NCHE) in San Francisco, and then became Director of Evaluation for the federal ODPHP/OHIP. I subsequently recruited him to the UTHSC Houston Center for Health Promotion Research and Development as an associate director for schools and an associate professor in the UT School of Public Health. The pull of federal government service later took him from Houston to Atlanta to create and head CDC's Division of Adolescent and School Health for the next 18 years. He then returned to academia as Professor of Applied Health Science at IU, where he helped faculty there establish the IU School of Public Health at Bloomington. Kolbe (2016) has recounted how his research and development efforts in each of the above academic institutions serially led to, then resulted from, his federal policy and program practice experiences first at ODPHP, then at CDC; he has suggested that academic institutions might more purposefully prepare faculty and doctoral students to work within federal government public health agencies.

One more hybrid example spans the type of careers of Kolbe, Kreuter, and Seffrin but on the other side of the same coin: Where Professors Kolbe, Kreuter, and Seffrin maintained long-term commitments to the government or voluntary agencies to which they devoted themselves, they did so as full-time employees of those external organizations and put their academic prospects on hold for much longer periods before ultimately returning to universities and to help establish a new School of Public Health, Kolbe and Seffrin at IU, Kreuter at Georgia State University. These nomadic sons of academia were promoted to high-level permanent positions in government and voluntary agencies that became their new professional homes, before they returned, or in Kreuter's case, retired from government, to help start a new academic program. The opposite hybrid example, illustrated by Gary Gilmore, PhD, is the academic who never uproots from the university but extends his or her reach into practice through special arrangements of divided university time and institutional functions and outreach.

Gary Gilmore, PhD. Gary Gilmore provides an example that is the opposite of Kolbe, Kreuter, and Seffrin in that it illustrates this pattern of continuously rotating practice and practice-based teaching but without leaving his university. This pattern would characterize many faculty hired through grants and contracts to staff research projects or other university functions that have special relationships with their community or state to provide or supplement services to their constituencies. Since 1974, Dr. Gilmore has held a joint appointment with the University of Wisconsin–La Crosse and the University of Wisconsin-Extension. Professor Gilmore directs the Graduate Community Health/Public Health Programs, and the Community Health Programming in Continuing Education and Extension. Like Seffrin, Gilmore served on the ACS National Board of Directors almost continuously from 1986 to 2002, and he then took a Fulbright Senior Scholar stint at the All India Institute of Hygiene and Public Health in Kolkata, India. On his return to the University of Wisconsin, Gilmore was appointed by the Governor of Wisconsin to the state's Public Health Council, which advises the Legislature and Administration on

progress in implementing the State health plan. He now chairs the Council, while retaining his full-time professorship. To address credentialing and professional development needs for health promotion and health education specialists in the Midwest, the Wisconsin Health Education Network was formally established in 1986, with Gilmore serving as its continuing chair from its inception to this date. He has also led delegations of academic and practitioner participants on study tours of Canadian and British universities, public health, health care, and health promotion program sites.

As evidence of Gilmore's effective teaching drawdown on these links to practice, he received the 2001 University of Wisconsin Board of Regents Teaching Excellence Award and the 1998 Award for Excellence from the University of Wisconsin-Extension. The MPH program he established was ranked sixth in the nation by the 2004 *U.S. News and World Report* rankings of the Best Graduate Programs in Community Health. He chaired the 6-year National Health Educator Competencies Update Project, which sought to validate the entry- and advanced-level competencies for health education specialists (Gilmore, Olsen, Taub, & Connell, 2005). An example of his pedagogical application of the cumulative lessons from these experiences is his four editions of *Needs and Capacity Assessment Strategies for Health Education and Health Promotion* (Gilmore, 2012). Since 2006, he has served continuously as a member of the National Council on Linkages Between Academia and Public Health Practice.

Other Cases of Turnstile Academic-Practice Careers

Here are a few mini case studies of selected leaders in health promotion who have distinguished themselves in the broader field of public health and in health promotion with their combination of academic and government or other service contributions where blocks of time have been devoted to each. Each of these cases can be studied further with their CVs or biographical sketches on their institutional websites, or on online PubMed abstracts and other sources. This selection of examples of career trajectories is limited and admittedly biased by my personal familiarity with careers of people I have known, and students and postdoctoral fellows who rotated from graduate degree and postdoc programs at UC Berkeley, Johns Hopkins, and the Universities of Texas, British Columbia, and San Francisco where I have taught and mentored, and a few with whom I have shared health promotion workplaces or encountered in policy and practice.

First among these, and before most were launched in their careers, were two of the founding fathers of health education and their grounding of it in behavioral and health sciences.

Clair Turner, DrPH. Clair Turner founded the first program leading to the MPH degree in health education, jointly at MIT and Harvard School of Public Health in 1914, and later taught at the UC Berkeley School of Public Health in 1945-1946 where he recruited *Dorothy Nyswander* to build the health education program there. Between these, he rotated to service and administrative positions in the Sanitary Corps of the U.S. Army Reserve (1924-1934), Chief Health Education Officer, Institute of Inter-American Affairs (1944-1945), Assistant to the President of the National Foundation for Infantile Paralysis (1946-1948), Chief of Health Education for WHO in Geneva (1962-1964), and variously as health education consultant to WHO and UNESCO (United Nations Educational, Scientific and Cultural Organization) in developing countries such as Egypt, Iraq, and several Asian countries. His memoire, *I Remember* (Turner, 1974), offers an engaging trip through the origins and development of health education in the United States and internationally with his role as chair of the committee that created the Society of Public Health Educators, now Society for Public Health Education, in 1949, and served as its first president with Derryberry as its President-Elect.

Mayhew Derryberry, PhD. It was a visit in 1962 along with my cohort of COSTEP (Commissioned Officer Student Training and Extern Program) health education trainees to the offices of the Health Education Division of the Public Health Service in Washington, DC, that I met Mayhew Derryberry, founding Director of that first federal Division of Health Education. He had hired a band of health educators and behavioral scientists to populate the first federal presence of an organized unit devoted to health education (Allegrante & Sleet, 2004). Most of these later fanned out to become professors at various universities, mostly in schools of public health: Derryberry and Andie Knutson at Berkeley, Godfrey Hochbaum at UNC Chapel Hill, Irwin Rosenstock at Michigan, Stephen Kegeles at the University of Connecticut, Howard Leventhal at Rutgers, and Ruth Richards at UCLA. These members of the early staff of Derryberry's federal office are mentioned because they conceived, developed, and tested in practice settings what came to be known as the health belief model, probably the most widely tested and applied theoretical model in the field (Becker, 1974; Harrison, Mullen & Green, 1992).

Derry, as he was called by his friends, had started his health career at the New York City health department, brought that local agency experience, together with his subsequent federal experience, eventually to Berkeley where I had the opportunity to study under his practice-informed gaze, always preparing myself to answer his inevitable "so what" questions of my research findings. Little more needs to be said about him here as so much of his work has been reprinted, expounded on, and studied by students since the editing and publication of

Derryberry's Educating for Health: A Foundation for Contemporary Health Education Practice (Allegrante & Sleet, 2004; see also Allegrante, Sleet, & McGinnis, 2004; Griffiths, Merrill, & Nyswander, 1980; Means, 1990).

Michael Eriksen, ScD. Michael Eriksen, with all three of his degrees from Johns Hopkins, served as Health Educator for the Rural Dental Health Program in Pennsylvania during his ScM and ScD graduate studies at Hopkins and completed a project for the Maryland Department of Health and Mental Hygiene with a classmate, Andrea Gielen, on seat belt promotion for young children (Eriksen & Gielen, 1983). But his postdoctoral career has been even more intensely and broadly influential in policy and practice. At Pacific Bell Telephone Company (later renamed Pacific Telesus), he bravely led one of the earliest worksite health promotion policy and program initiatives in HIV/AIDS prevention (Glantz & Balbach, 2000). He was fired, which provides a brave, inspiring story on an internal corporate battle, recounted in David Kirp's (1989) article in the *Harvard Business Review*.

His subsequent position at the MD Anderson Cancer Center included Associate Professor in health promotion in the UTHSC School of Public Health. His turnstile career then took him to CDC where he became Director of the Office on Smoking and Health, the lead federal agency on tobacco control, with a more than $100 million annual budget from 1992 to 2002. Beside providing guidance to state local health agencies on tobacco control and carrying primary oversight responsibility for numerous CDC publications of that office, including the frequent Surgeons' General Reports on Smoking and Health, he served as CDC's consultant to WHO in Geneva, leveraging CDC's support for a Global Youth Tobacco Survey (Warren et al., 2000) and became coeditor of the global *Tobacco Atlas*, now in its fifth edition (Eriksen, Mackay, Schluger, Gomeshtapeh, & Drope, 2015). He also served as President of SOPHE and is editor in chief of *Health Education Research*.

Now Founding Dean of the School of Public Health at Georgia State University, he continues to provide consultation to CDC, FDA (Food and Drug Administration), WHO, and ACS; has given testimony to Senate and House committees; and heads a tobacco policy center funded by the FDA.

Barbara Rimer, DrPH. Barbara Rimer, now Dean and Alumni Distinguished Professor at the Gillings School of Global Public Health, UNC Chapel Hill, served at National Cancer Institute (NCI)/NIH in a health education staff position between her MPH at Michigan and doctoral studies in health education at Johns Hopkins, and served later at the Fox Chase Cancer Center in Pennsylvania and at the NCI as Director of the Division of Cancer Control and Population Science between her professorships at Duke and Chapel Hill. Together with Karen Glanz, she has coedited five editions of the standard-setting text, *Health Behavior and Health Education: Theory, Research, and Practice* (Glanz, Rimer, & Viswanath, 2015). A recent reflection on her practice experience at NCI is elegantly presented in Rimer (2016), with inspiring accounts of her government work and conviction about "Government Service: The Power to Transform." She also acknowledges how her development with Robert Hiatt of a new NCI vision for cancer control and population science (Hiatt & Rimer, 1999) "changed what people studied, put efforts into place that influenced not just the NCI but also other NIH institutes and cancer organizations, and . . . enabled citizens, organizations and legislators to get a more accurate picture of the cancer burden" (Rimer, 2016, p. 243).

Dr. Rimer is the author of more than 250 publications and serves on several journal editorial boards. Her numerous awards and honors include the Fries Foundation Award for Health Education (2004), the Secretary's Award for Distinguished Service from the U.S. Department of Health and Human Services (2000), the Director's Award from the NIH (2000), and the ACS Distinguished Service Award (2000). Dr. Rimer was the first woman and behavioral scientist to lead the NCI's National Cancer Advisory Board, a Presidential appointment. In 2011, President Barack Obama announced his nomination of Barbara Rimer to chair the President's Cancer Panel. The three-member panel monitors the activities of the National Cancer Program. It reports directly to the president on barriers to program implementation. Members serve 3-year terms, and at least two of the three panel members must be distinguished scientists or physicians. She also recently served as Vice-Chair for the Task Force on Community Preventive Services at CDC.

Robert S. Gold, PhD, DrPH. Robert Gold has capped his turnstile career, like Eriksen and Rimer, as a Founding Dean of a new School of Public Health, at the University of Maryland, College Park. He now serves as Head of the Department of Epidemiology and Biostatistics, Professor in the Department of Behavioral and Community Health, and founding Director of the Public Health Informatics Research Laboratory. In 1984, he rotated from academia to Director of the Prevention Policy Branch in the federal ODPHP. On his return to academia, he had a 5-month consultation at WHO in Geneva as CDC liaison. With his 40 years experience in public health and health promotion, Bob Gold is nationally recognized for his application of advanced communications technologies to health education, ranging from interactive video and computer software, particularly for minority and other underserved audiences, to knowledge management, decision support, and expert systems technology. He has served in both public and private sector positions and has been responsible for planning, directing, and evaluating local through international programs. He resigned

a tenured full professor position at the University of Maryland to go to a Vice President position at ORC Macro International, a for-profit company, where he directed the Applied Human Technologies Division, the principal component of the organization responsible for public health technology development, and 7 years later was able to return to University of Maryland as a full professor.

Dr. Gold, an elected Fellow of both the American Academy of Health Behavior and the American School Health Association, received the Honor Award of the national health education honorary association, Eta Sigma Gamma, and the John P. McGovern Medal for Distinguished Contributions to Health Education from the American School Health Association. He served as President of SOPHE and received its Distinguished Fellow Award in 2012.

He earned his Master of Science degree in health education from the State University of New York at Brockport, his PhD in Health Education with major emphases in computer science and research design from the University of Oregon, and his DrPH in Community Health Practice from the University of Texas School of Public Health. He quotes his academic adviser for his master's degree, William (Bill) Zimmerli, who told him in 1970, "Universities are filled with people teaching about things they've never really experienced." Bob followed this advice several times during his career to quit whatever he was doing to "do something you want to teach about."

Collins O. Airhihenbuwa, MPH, PhD. Collins Airhihenbuwa has recently been appointed as one more Dean among these notable turnstile careers, this one illustrating the devotion to a social cause as the pathway to accumulating practical, administrative, and social change experience. While serving on Penn State's faculty for more than three decades, he became chair of his department and took on the directorship of the Pan-University Network for Global Health, a consortium of 13 U.S. and international higher education institutions working together to address global health concerns. Building on his international and intercultural research, he developed the PEN-3 model, a cultural-centric framework that has been used to guide diverse health interventions worldwide, from malaria prevention in Africa to diabetes management in the United States (Airhihenbuwa, 1995, 2007a). His advocacy work in addressing health disparities and social inequities has engaged him in WHO and the United Nations (Airhihenbuwa, 2007b). His work has been recognized also by SOPHE (for which he served as President in 2007), the American Association for Health Education, the American Academy of Health Behavior, and the Academy of Behavioral Medicine Research.

Patricia Dolan Mullen, DrPH. Patricia Mullen, following her Peace Corps service and her MPH and doctoral degrees at Berkeley, worked with the Health Education Department of what is now the Northwest Kaiser-Permanente. She returned to academia for a postdoctoral year at Johns Hopkins and went on to work with OHIP/ODPHP in the federal Office of the Assistant Secretary of Health. In a later pivot back to Academia, she brought her health maintenance organization and federal experience to the University of Texas Center for Health Promotion Research and Development as Associate Director for Medical Care Settings (Green, Mullen, & Maloney, 1984; Mullen, Hersey, & Iverson, 1987). She has led numerous NIH and other grants, served as a founding member and Vice-Chair of the Community Preventive Service Task Force, and maintained an NIH-funded doctoral and postdoctoral training program for almost three decades. Today, Pat is decorated as University of Texas System's Distinguished Teaching Professor and the UTHSC at Houston President's Scholar, with the American Public Health Association's (APHA) Public Health Education and Health Promotion Section's Distinguished Career Award, and with SOPHE's Mentor Award.

Chris Lovato, PhD. Chris Lovato, with a PhD in educational psychology from UT Austin, and mentored by Michael Eriksen, Nell Gottlieb, Lloyd Kolbe, Guy Parcel, Pat Mullen, and me at the University of Texas at Houston, went on the become Director of Health Promotion at the Student Health Services for San Diego State University, as well as an associate professor in the School of Public Health. She then moved to the University of British Columbia as an associate professor, where she helped establish the Institute for Health Promotion Research and is now a professor in the School of Population and Public Health where she teaches courses in program planning and evaluation and collaborates with government on evaluation research related to health services. She also served for several years as Director of Evaluation for the Faculty of Medicine assessing the impact of medical education programs on the physician workforce.

Donald Morisky, DSc. Donald Morisky, after a stint in the Peace Corps and an MSPH in health education from the University of Hawaii, came to Hopkins for a Doctor of Science degree in health education and a postdoctoral year on our NIH grant analyzing the long-term follow-up of patients who had been the subjects of our experimental tests of health education interventions with poor, inner-city patients with hypertension. His analyses showed a 54% decrease in mortality over the 5 years following exposure to the educational interventions (Morisky et al., 1983; Morisky, Green, & Levine, 1986;). Don went on to take an assistant professorship at UCLA School of Public Health and has trained several generations of students in health education and health promotion there, engaging many of them in his international work in Taiwan, the Philippines, Thailand, and other countries in

Southeast Asia. He has been honored as SOPHE Distinguished Fellow and the APHA Early Career Award and served as APHA's Public Health Education Section Chair.

Judith Ottoson, EdD. Judith Ottoson, with an MPH degree in health education from the University of Hawaii, worked in New England for a rehabilitation hospital and then for the New England Board for Higher Education, conducting and evaluating a regional continuing education program, then pursued her doctoral degree at Harvard with a focus on the issues of policy and practice implementation and evaluation. She joined Don Iverson, Pat Mullen, Henry Montes, and me as a consultant (referred by Helen Cleary) at OHIP/ODPHP during a summer between semesters at Harvard. She later served as an evaluator for the Texas Medical Center Library (Ottoson & Green, 1987, 2005), then rotated back to academia as an assistant professor promoted to associate professor at the University of British Columbia, then at Georgia State University's Andrew Young School of Policy Studies, and most recently lecturer teaching evaluation in the MPH health education program of San Francisco State University, and conducting health promotion evaluations for the Robert Wood Johnson Foundation (e.g., Ottoson et al., 2009; Ottoson & Hawe, 2009; Ottoson, Ramirez, Green, & Gallion, 2013) and the UC Davis Center for Nutrition Policy at Berkeley.

David Sleet, PhD. David Sleet has been a model of bridging the injury prevention and control science and the field application, teaching, and implementation of it in policy and practice (Ramirez, Chalela, Gallion, Green, & Ottoson, 2011; Van Olphen et al., 2011). After completing a dual undergraduate degree and master's program at San Diego State University (SDSU), he trained in a flexible PhD program at the University of Toledo where Don Iverson (below) enabled him to get reciprocal credits offered at the University of Michigan and Bowling Green State University. Returning to SDSU as faculty member in health science, he helped establish their Graduate School of Public Health. His first rotation from academia to practice and policy was to the U.S. National Highway Traffic Safety Administration in Washington, D.C., first on sabbatical, then as an IPA (described below and in Green, 2016) for 2 years, extended to an additional 2 years. He returned to San Diego State and spent various summers in Belgium and Finland assisting academic and government programs in health promotion and injury prevention. Still in his academic position, he traveled to Australia for 2½ years (leave without pay) to become the acting director of a Road Accident Research Unit at the University of Western Australia where he taught and worked half-time at the State Health Department of Western Australia building their injury prevention program. After another rotation teaching at SDSU as a tenured full professor, he pursued another IPA assignment, this time at the CDC, where he stayed for 4 years, before returning to teach classes again. His current position is with the CDC's Injury Center Division of Unintentional Injury Prevention where he is Associate Director for Science, and the senior advisor to the Division on matters of science and policy, planning, and managing injury research programs (Sleet et al., 2012). His turnstile life garnered him a U.S. Public Health Service Commendation for Global Road Safety, The Elizabeth Fries Health Education Award and Prize, the MADD President's Award, the Mayhew Derryberry Award from APHA for contributions to theory, a Department of Health and Human Services Secretary's Award for Distinguished Service, the Royal Order of Sahametrei Medal from the King of Cambodia, and in 2016 the Governor's Highway Safety Association's Trailblazer Award. He was named one of the top 20 most influential leaders in injury control, and he attributes this and other successes to his "periodic exposure to alternative ways of thinking about public health, diverse environments in which health promotion is practiced, and immersion in policies and programs through field experiences at home and abroad" (D. Sleet, personal communication, September 29, 2016; Sleet & Shaw, 2016).

John P. Allegrante, PhD. John Allegrante, Professor at Teachers College and the Mailman School of Public Health, Columbia University, used his first early sabbaticals to spend time at the RAND Corporation as a Pew Fellow at the RAND/UCLA Center for Health Policy Studies, as President of SOPHE in Washington, D.C., and as President of the NCHE where he oversaw the repatriation of NCHE and its remaining assets to SOPHE. While he was President of SOPHE in 1997-1998, he launched the Campaign for the 21st Century that raised $170,000 for SOPHE in its first year, was a key leader in organizing and convening the first Health Education Advocacy Summit in Washington, D.C., and later was a key negotiator of the contract to publish a new SOPHE practice journal, *Health Promotion Practice*. He has also used successive Fulbright Scholar and Erasmus Mundus awards to facilitate his turnstile opportunities in several other rotations abroad, most recently at the Ecole des Hautes Etudes en Santé Publique in France, and at Reykjavik University, where he was Acting Dean. He has worked with Icelandic and European behavioral and social scientists to forge what is today an ongoing 10-year program of multidisciplinary research that is supported by a grant from the European Research Council to investigate risk and protective factors in child and adolescent development. His role as editor in chief of SOPHE's flagship research journal, *Health Education & Behavior*, and his continuing support of SOPHE as a senior statesman and fund raiser for its Campaign for the 21st Century have helped pave the way for several new initiatives, including SOPHE's lead role in promoting standards and quality assurance in professional preparation, and for Stephen Gambescia's launch of

SOPHE's newest journal, *Pedagogy in Health Promotion*. In recognition of his work, he has received the Distinguished Fellow Award of SOPHE and the Mayhew Derryberry Award of APHA, and an Honorary Doctorate from the State University of New York, his alma mater, among others.

Donald Iverson, PhD. Donald Iverson, after receiving his PhD in Health Education from the University of Oregon in 1971, taught at the University of Toledo where Lloyd Kolbe, David Sleet, and Barry Portnoy were among his protégés. All three of them fit the model of turnstile careers, Kolbe and Sleet noted above, Portnoy at NIH and the University of Maryland. Iverson moved in and out of academia, to government organizations, NGOs, and private sector organizations. He joined me and other health educators (Patricia Mullen, Judith Ottoson, Henry Montes) in the federal OHIP to codevelop the national health promotion program of the U.S. Department of Health and Human Service. He returned to academia at the University of Colorado, where he led the development of a curriculum for U.S. family medicine residents to enable them to identify and address unhealthful behaviors in frontline practice, and managed a practice-based research network; then, in Canada, he became the first director of the Centre for Behavioural Research and Programme Evaluation at the National Cancer Institute of Canada. A more complete account of his continuing international turnstile from North America to Australia, where he developed and headed a medical school at Wollongong University, is recounted in his obituary and tribute (Green, Green, Portnoy, Sanson-Fisher, & Ashbury, 2016). Iverson is quoted there reflecting on his career:

> "I truly believe moving amongst sectors is incredibly valuable in that it allows/forces one to look at issues from a very different perspective. In my case I was fortunate to have worked at the national (OHIP and NIH) and state (Connecticut) government levels, a national NGO (NCIC) and the private sector (OpTx) as well as a few universities. I learned something in each of these positions, especially from a policy and decision-making perspective. I have also concluded that the "easiest" positions are in universities as the demands, especially time-sensitive demands, pale in comparison to those experienced by government employees and in the private sector, and the hours for which they are accountable is minimal. I have spent some time over the past decade trying to understand why places like Singapore, Taiwan, Israel and a few other select countries are doing so well in the discovery-translation-application arena and what I have observed is that they have porous boundaries between universities, government agencies and the private sector." (Quoted in Green et al., 2016, p. 3680)

In the year before he died of cancer in 2016, Don was appointed to establish and direct a research institute at Swinburne University in Victoria State, Australia, which now carries his name as the Iverson Health Innovation Research Institute.

L. Kay Bartholomew, MPH, EdD. Kay Bartholomew was another recently (2016) and tragically lost colleague whose career illustrates the pedagogical value of field experience in practice. Kay began her health education and health promotion work with a decade in a city-county health department following her graduation from Austin College and then had a spectacular stretch of patient education work at Texas Children's Hospital and Baylor College of Medicine. She developed there, in collaboration with Guy Parcel and others, a series of interventions on cystic fibrosis in children (Bartholomew et al., 1997; Bartholomew, Seilheimer, Parcel, Spinelli, & Pumariega, 1989) and another from her work at Children's Hospital on juvenile rheumatoid arthritis (Bartholomew, Koenning, Dahlquist, & Barron, 1994), both of these applying the PRECEDE–PROCEED model. The juvenile arthritis project won the Program Excellence Award of the SOPHE in 1997. Her move to the University of Texas School of Public Health resulted in her opportunity through teaching from these projects to codify the procedures for using theory in conjunction with the PRECEDE–PROCEED model to produce her "intervention mapping approach" to health promotion planning, now in the fourth edition of a textbook widely used in graduate degree programs (Bartholomew et al., 2016; Bartholomew, Parcel, & Kok, 1998). She became Distinguished Teaching Professor, and Associate Dean for Academic Affairs at the UT School of Public Health, building on her designation as Fellow of the Association of Schools of Public Health/Pfizer Public Health Academy of Distinguished Teachers.

Behavioral Scientists

Mention of at least a few behavioral scientists whose turnstile careers brought them from government research positions to faculty positions in schools of public health is warranted in this context. This because I have argued elsewhere (Green, 2006, 2008b) that schools of public health, faced with their mid-century failure to shift sufficient attention from communicable to chronic diseases, had to hire many behavioral scientists to their faculties beginning in the 1960s. Many, if not most, of them were fresh from their newly minted PhD degree programs, with little or no experience. These are examples of the exceptions:

Godfrey M. Hochbaum, PhD. Godfrey Hochbaum, from the 1950s in Washington, D.C., made extraordinary contributions to the profession of health education from his work under Derryberry with his widely applied health belief model, further developed by Irwin Rosenstock, Marshall Becker, and others. Hochbaum was roundly

acknowledged for these contributions by SOPHE as a Distinguished Fellow of SOPHE. He inspired generations of health educators and left an indelible legacy through his pioneering research, publications, and teaching at the UNC's School of Public Health at Chapel Hill. He enlivened the professional discourse as a member of the editorial board of SOPHE's journal, *Health Education & Behavior*, and helped earn the journal's respect among the country's leading social and behavioral scientists. He mentored many individuals at UNC's Department of Health Education and Health Behavior. Following his death in 2000, SOPHE dedicated its 51st annual meeting to the achievements of Godfrey Hochbaum.

Irwin T. Rosenstock, PhD. Irwin Rosenstock, a collaborator with Hochbaum in the U.S. Public Health Service, also left the federal government for a professorship, his in the Department of Health Education at the University of Michigan. He later headed what became the Department of Health Behavior and Health Education. He continued elaborating on the health belief model with applications to chronic diseases. Among his PhD students was Marshall Becker, who carried on the tradition of wider applications and tests of the health belief model at Johns Hopkins University and published a compilation of studies and reviews testing and reviewing applications of it (Becker, 1974; see also Allegrante & Sleet, 2004; Harrison et al., 1992).

Andie L. Knutson, PhD. Andie Knutson came to Berkeley from Derryberry's U.S. Public Health Service Division to develop a Behavioral Sciences unit at the UC School of Public Health. He was an engaging and well-received teacher in our public health education classes. His lectures and insights were compiled in his textbook, *The Individual, Society, and Health Behavior* (Knutson, 1965), in which his preface says, "What is presented represents an attempt to unite theory, research, and practice in a way meaningful to the public health practitioner" (p. 9). What more could we ask of behavioral scientists helping to prepare us for practice?

William Darrow, PhD. William Darrow, now a professor of health promotion in the Stempel College of Public Health and Social Work at Florida International University, was one of the central figures in the CDC history and film adaptation of the book portraying it, *And the Band Played On: Politics, People and the AIDS Epidemic* (Shilts, 1987). Bill began his career with CDC as a Public Health Advisor, returned to university to study sociology, and applied what he had learned when given the opportunity to trace most of the initial network of contacts whose relationships revealed and helped confirm the sexual transmission of a lethal retrovirus (Darrow, 1998).

Other Cases Lost to Space Limitations

This review began with a set of criteria for inclusion of cases, based largely on space limitations and my personal familiarity with individuals of my generation and subsequent ones with whom I had the privilege of working or knowing. The unsystematic sample that emerged on these pages omitted many whose academic productivity built on significant full-time exposures in the field but were not (yet) repeated in the turnstile mode I have tried to illustrate here. Examples of prominent and productive health education careers in this vein include Andrea Gielen, with a predoctoral stint at the Maryland State Department of Health and Mental Hygiene, now Professor of Health and Society and Director of the Johns Hopkins Center for Injury Prevention with extensive collaborations with CDC and a recent recipient of APHA's Excellence Award and the Fries Foundation Prize for Health Education; Edward Roccella, Bruce Simons-Morton, Richard Windsor, and others with long-term commitments at the NIH; and Jay Bernhardt, Elizabeth Howze, Leonard Jack, Liandris Liburd, Shawna Mercer, and others at CDC. Readers are encouraged to explore these and other careers via bibliographic and online searches.

Reflections on the Push and Pull of Turnstile Careers

Cause or Effect?

Does experience produce better teachers, or do better teachers with their academic preparation in theory and research get better opportunities for significant influence in policy and practice? Clearly, a common complaint about doctoral training by those now teaching in health education (as in many other professions) is that doctoral degrees did not prepare them for teaching, as addressed in the Message from the editor in chief of this issue (Gambescia, 2016). If not comfortable with their teaching, as I was increasingly uncomfortable in the 1970s, they might be drawn to and benefit from a turnstile opportunity.

The Opportunity Hypothesis

With either their strong academic preparation and productivity or their strong public service track record, the turnstile would be an open invitation to the other side for a person with potential to contribute what most others in the academic health promotion or practice setting are not so well qualified to contribute. Many of us have taken advantage of a program that enables academics to serve in temporary government positions. Since 1971, the IPA of 1970, Public Law 91-648, permits the temporary assignment of personnel back and forth between federal agencies, state and local governments, Indian tribes or tribal organizations, institutions of higher

education, and other eligible organizations. Assignments are for specific work beneficial to both of the eligible organizations. Assignment agreements are for 2 years but can be extended for 2 additional years. Academic personnel continue to receive their regular salary and all benefits including tenure and retirement, and the university bills the government for the costs. Some have used the IPA mechanism for sabbaticals, while others have extended sabbaticals using the IPA for an additional 2 to 4 years. The turnstile can work in both directions.

The Reciprocal Influence Hypothesis

Each side of the turnstile produces a complementary strengthening of the health promotion experiential, pedagogical, and relevant research capabilities of a health promotion professional. In the case of a temporary assignment, sabbatical, or IPA arrangement, both parties learn from one another, and the candidate returns to a position with added skills, contacts, and new competencies.

Fear, Doubt, or Inertia?

Does the prospect of leaving academia for an opportunity in policy or practice or vice versa produce fear of interrupting one's progress up the academic ladder and uprooting from the comforts of academic home, or losing one's government seniority in the service world, or displacing one's family, or is it merely complacency, smug inertia, concern about what others may think, or doubt about one's ability to cope with the other world? One solution for overcoming this fear or doubt is to negotiate an IPA or a similar arrangement, such as a sabbatical leave, with a state, federal, or tribal organization to "try out" the new position without loss of employment status at the home institution.

The Stereotyping Hypothesis

Whether it produces fear or doubt, the tendency for academics to stereotype practitioners and their service agencies of government, and for practitioners to stereotype academics as ivory tower dwellers, produces inertia: "Why interrupt the position I'm in for a dubious role in a dubious place?" The answer to that "why" question is the growth opportunity and the impact that cannot be had where you are now. Secondary to that are the improved productivity and value you can bring back to your students or the constituent population served by your previous position.

The Fear of Lost Momentum in One's Research Agenda

The fallacy of this fear is illustrated by most of the cases described above, but it has a practical solution for many positions: The IPA and similar provisions in some state governments and voluntary agencies allow academics to go to agencies with their full university salary and have their benefits paid by the government to their university to preclude any interruption or alteration in their pay. Some professors take a leave of absence from their universities in return for paid temporary positions in government, voluntary, or foundation positions.

But faculty at many institutions face increased university pressures to raise portions of their own salaries from grants and contracts. The concomitant reductions in federal research grant funding has made distractions from their research focus unwelcome. Professional schools at universities cannot abandon their valuing of practice experience for incoming junior faculty and need to hire experienced senior faculty. Accrediting agencies and certification guidelines need to help protect the practice experience requirements for faculty and students, and the provisions for active sabbaticals away from the confines of the university (Aday & Quill, 2000; Commission on Community-Engaged Scholarship in the Health Professions, 2005; Steckler & Dodds, 1998), while also expecting published products from the experience.

Reflections on the Limitations of the Research, Teaching, and Writing of the Field

The Research Literature

Most of our journals are dominated by impact factor scores and NIH-funded, academically centered or controlled, theory-testing studies in unrepresentative populations (Glasgow et al., 2006; Glasgow, Green, & Ammerman, 2007; Green, 2001, 2006, 2007a; Green et al., 2009; Green & Mercer, 2001). The theories that lend themselves most conveniently to testing and qualifying for these journals are ones that focus on the following: simplistic interventions, psychological mediators, and individual-level behavioral or proximal health outcomes, with homogeneous samples to minimize variance and dropouts and with highly controlled protocols to limit variance in the intervention, regardless of variable needs or preferences of the participants.

Even when more complex interventions are evaluated in real-time community or institutional settings, the studies are more likely to be published if they are reported in the foregoing traditions, limiting their utility to policy makers and program planners and to students learning the art and science of policy and practice. SOPHE has sensibly struck a better balance in its journal offerings in adding *Health Promotion Practice* and *Pedagogy in Health Promotion*, while retaining the essential theory- and research-to-practice emphases of *Health Education & Behavior*.

The Academic Workplace

What stands as the prevailing barrier to implementing a more balanced research- and practice-relevant teaching capability and delivery of our university faculties are the university demands and reward systems for appointments, promotion, and tenure. Deans and department chairs need clear delineation of our needs and priorities for the balanced academic and practice acumen as required by the certification and accreditation requirements of the profession. But even with those increasingly codified for the field, the deans and department chairs must also reconcile them with sources of funding, which have become all too dependent at research-intensive universities on research grants and contracts, and those in turn on increasingly competitive funding. Greater use of "clinical" and "adjunct" tracks in the hiring of faculty can help strike this balance. At the same time, encouraging and supporting more opportunities for those on the research and teaching tracks to get periodic immersions in policy and practice through turnstile opportunities can produce both greater relevance and utility of their teaching and research.

Some Lessons and Conclusions: A Field of Practice Calls for Teachers With Practice Experience

Other fields in the health professions require this of their teaching faculty. They make allowances for some "basic" science teaching by PhDs without field practice experience, but those instructors, too, benefit from exposure to and observations from students in practice and practicing professionals. Practice experience shown here has influenced not just faculty teaching but also how teachers think about problems and in turn the relevance and utility of their research.

Experience can most effectively translate to teaching if it comes from exposure to and responsibility for the demands of assessing population needs, planning programs or policies to address them, and implementing and evaluating programs.

A field that seeks to leverage health education to upend the ecological model of health promotion (Golden, McLeroy, Green, Earp, & Lieberman, 2015) calls for teachers with personal experiences that can bring the real world of policy and practice to life for their students.

Acknowledgments

I am indebted for their corrections and permissions to all the people whose case histories I have drafted and used, and to some—especially Collins Airhihenbuwa, Julia Alber, John Allegrante, William Darrow, Michael Eriksen, Lloyd Kolbe, Marshall Kreuter, Liandris Liburd, Chris Lovato, Donald Morisky, Patricia Mullen, Judith Ottoson, Barbara Rimer, and David Sleet—for valuable elaborations and reflections on some of the inferences I have drawn from them. I thank, especially, Stephen F. Gambescia for his invitation, encouragement, advice, and support for this writing and publication.

Declaration of Conflicting Interests

The author declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author received no financial support for the research, authorship, and/or publication of this article.

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