



Alcohol Clinical Training Project

IMPLEMENTATION AND EVALUATION REPORT

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Executive Summary

This report provides a description of the Alcohol Clinical Training (ACT) Project evaluation results. The Alcohol Clinical Training (ACT) Project, established by the Boston Medical Center and Boston University Schools of Medicine and Public Health, aims to disseminate research-based information and pragmatic clinical skills to increase screening and brief intervention for unhealthy alcohol use.

Practice guidelines of leading professional societies recommend alcohol screening and behavioral counseling interventions in primary care settings.(1;2) Valid, brief, practical screening tools exist for the detection of unhealthy alcohol use in primary care settings, and brief interventions by physicians can reduce drinking and improve health outcomes when delivered to primary care patients with unhealthy alcohol use.(3-6) However, unhealthy alcohol use in primary care is often unrecognized and untreated, as reported in studies performed well after studies demonstrating efficacy and national guidelines were issued.(7-12)

To increase dissemination of research-derived information and pragmatic clinical skills to increase screening and brief intervention for unhealthy alcohol use with attention to health disparities, we have developed two distinct resources and disseminated them to target audiences using novel but well-established and accessible technologies.

- **Alcohol Screening and Brief Intervention Curriculum** - A free online curriculum for generalist clinicians, educators, and trainees that teaches skills for addressing unhealthy alcohol use in primary care settings (including screening and brief intervention)
- **Alcohol and Health: Current Evidence** – A free online newsletter that summarizes the latest clinically relevant research on alcohol and health

Evaluation data indicate that an online newsletter can reach many clinicians with the latest relevant alcohol research. An online alcohol curriculum can reach many physician educators, and in-person training increases alcohol-related teaching. These results suggest that the web is an effective dissemination tool but that additional efforts are needed to increase use of alcohol research and evidence-based practices by generalist physicians.

Alcohol Screening and Brief Intervention Curriculum

Background

The prevalence of unhealthy alcohol use is high in medical settings, in which there is an opportunity to identify unhealthy alcohol use and intervene. But physicians receive little effective education regarding unhealthy alcohol use and often fail to identify it in practice. Educational efforts about alcohol and health disparities are often separated from more mainstream medical topics and marginalized. Efforts are needed to translate existing research findings into practice. Education with effective, culturally sensitive, integrated, audience-tailored methods and materials is one necessary component for improving routine and universal medical practice in this area.

Alcohol health disparities include variations in risk for an alcohol use disorder, in recognition or diagnosis, or in treatment delivery or access, for either the alcohol problem, or for other health care because of the alcohol problem (i.e., liver transplantation). Alcohol has variable effects in different racial and ethnic groups, cultures, and affects the sexes differently. Etiologies include genetics, biologic and socio-cultural differences. Patient perception of risk and of problem use can vary. Poor physician-patient communication across cultures can decrease the effectiveness of key clinical skills such as screening and brief intervention.

Description

The Alcohol Screening and Brief Intervention Curriculum is a freely available, web-based curriculum tailored to primary care physicians. The website is designed primarily for use by generalist physician educators (e.g. those who educate other internal medicine, or family medicine, mainly resident, physicians). It addresses both unhealthy alcohol use and health disparities and delivers pragmatic clinical information to increase screening and brief intervention for unhealthy alcohol use with attention to health disparities.

The curricular goals and objectives include learners' ability to:

- Understand the importance of alcohol screening and intervention.

- Describe and demonstrate a practical approach to screening and brief intervention for unhealthy alcohol use in medical settings with attention to cross-cultural efficacy and health disparities.
- Using a patient-centered, evidence-based approach...
 - o ASK about alcohol use
 - o ASSESS severity and readiness to change
 - o ADVISE cutting down or abstinence, and ASSIST in goal setting, and further treatment when necessary
 - o ARRANGE follow-up to monitor progress
 - o ASSURE cross-cultural efficacy by building trust through respect, eliciting patients concerns and explanatory models, mitigating power differences, and expressing empathy

The online package consists of a *Core Curriculum* and *Related Curricula*. The *Core Curriculum* focuses on skills and techniques regarding identification, assessment and intervention for the spectrum of alcohol use in primary health care settings. The curriculum includes slides with speaker notes and audio narration that neatly break into three sections around trigger videos demonstrating three cases: screening a drinker with no consequences, assessing and briefly counseling a drinker with health consequences, and assessing and briefly counseling a drinker with alcohol dependence.

The *Related Curricula* serve as supplements to the Core Curriculum to provide additional information about selected issues. First, “Health Disparities and Cultural Competence” aims to enhance primary care physicians’ ability to assure cross-cultural efficacy when assessing alcohol use, advising behavior change and arranging follow-up. This curriculum includes slides with speaker notes, a trigger video, and a case for role-play. Second, the purpose of “Pharmacotherapy” is to understand the role of pharmacotherapy in the treatment of alcohol use disorders. This curriculum includes slides with speaker notes and a handout.

Formative Efforts

Curricular Development

General Approach. The curriculum was developed with attention to adult learning principles and current guidelines for medical educators.(13;14) One of the key issues in developing a curriculum for adult learners is that they perceive the materials as particularly relevant to them. Physicians generally want to be in the position to decide whether to incorporate their new knowledge. Teachers and curricula must function more like facilitators of learning, demonstrate respect for the learner's knowledge and build on previous experience, challenge the learner to think and problem solve, incorporate the opportunity to practice new skills, teach what the learner perceives they need to know (or help change their perception), and emphasize what can be used immediately.(15) The learner must believe that the material to learn is important, relevant and possible to master.

The ACT curriculum was developed for generalist physicians, specifically general internists, for several reasons: Most outpatient visits (57% of 85 million visits in 2004) are made to general medicine/primary care.(16) Almost one-third of all persons in the US made such a visit. Almost half of office-based physician visits are to internists.(17) General internists' training in residency on unhealthy alcohol use is known to be inadequate.(18) Yet residency is a time when physicians establish their practice patterns. Another reason for targeting faculty to train resident physicians is that teaching hospitals and their outpatient clinics are known to care for a higher proportion of vulnerable populations than other hospitals.(19) The target audiences included both the faculty who would use the curriculum to train others, and the general internists being trained. In addition, as described in detail below, the ACT curriculum was made available to be viewed directly by learners on the web.

The method, medium and content of the curriculum was designed specifically for these targeted learners. This was done by incorporating clinical cases familiar to these physicians, being familiar with learning styles and formats well received by general internists in training, developing a curriculum that is flexible in its application in a jam-packed general curriculum, being easily available at no cost, and by integrating rather than separating health disparity issues

(to avoid further stigmatization and marginalization of the two topics). The intent of developing and making this curriculum available was to provide faculty with materials they could take “off the shelf” and use to incorporate three hours (all at once or one hour at a time, or condensable to one hour only) of alcohol education to residents. The time required for the module varies primarily due to how much role-play, question and answer is done when implemented in each local setting. One-hour time-slots are available in physician training programs, while longer times are at a premium, and less commonly available. It is important to design a curriculum for the setting in which it will be used. Certainly, more time in the curriculum is desirable, but the availability of multi-module, long curricula has not translated into the inclusion of extensive substance abuse training in generalist residency training programs.

The curriculum was designed for use by faculty who are not alcohol experts. The medium for the curriculum is Powerpoint[®] slide presentations with accompanying text, and video examples of physician-patient interactions. A brief guide is available regarding how to use the role-plays in teaching. In addition, ACT Project faculty are available for consultation and live question-and-answer by faculty implementing the curriculum. Therefore, the curriculum is useable “off the shelf” by physician faculty, or with input desired by them from ACT Project Faculty as needed, ranging from e-mail or telephone questions to attendance at a national training. Resources required to implement the project included a digital video camera, video editing software, and a networked personal computer with video streaming capability, and actors for video clips.

ACT Curriculum Faculty. The developers of the curriculum include Drs. Richard Saitz, Daniel Alford, Sheila Chapman, and Jeffrey Samet, with consultation by Drs. Catherine Dubé and Robert Schadt. This group is comprised of committed and experienced clinical and research educators regarding unhealthy alcohol use and health disparities for physicians using proven and innovative methods. Prior to the launch of the ACT project, they had experience designing alcohol and cross-cultural efficacy curricula. They include active alcohol researchers; they had credibility as experts for the chosen target audience of generalist physicians; and they had been successful in publishing primary research and education articles and clinical review articles in the peer-reviewed scientific literature, including primary care publications. They had

successfully disseminated their work locally and nationally at professional society meetings attended by physicians, and via the Internet.

Curricular Synthesis. The screening and brief intervention materials draw heavily upon materials produced by NIAAA—the curriculum *Training Physicians in Techniques for Alcohol Screening and Brief Intervention*, and an accompanying guide to educating physicians to implement the 2003 *Physicians' Guide to Helping Patients Who Drink Too Much: A Clinician's Guide*. We specifically and purposefully chose NOT to create a separate curricular module on health disparities, minority health or cross-cultural issues. Separating that curricular content would have made it more likely to be viewed as a separate and distinct area, likely to be skipped or not used. We chose to integrate this information with the alcohol curriculum so that it forms one complete integrated package. We did this recognizing that these are separate academic areas and scientific bodies of knowledge. We also chose NOT to provide detailed information on the norms and issues of importance to particular ethnic and minority groups to avoid fostering stereotypes and assumptions. We do not want learners to believe that they can memorize information about an ethnic group in order to be effective across cultures. We did however include information on the epidemiology of alcohol use and problems by ethnic, gender and income groups.

The NIAAA training guide available in 2003 included a slide-based lecture and small group case discussion/role plays. The NIAAA training lecture includes the following general areas: why primary care physicians should be involved with helping patients with unhealthy alcohol use, data on alcohol consequences, and the NIAAA Physicians' Guide approach to screening, low-risk drinking, assessment, and brief intervention. The training guide includes cases that can be a part of the training, time-permitting. The cases are for role-play of screening followed by group discussion of advice to be given.

Alcohol issues. The ACT curriculum modified the 2003 (and subsequently updated 2007 (20)) NIAAA materials to improve the applicability of the training to its intended audience and integrate health disparity issues. First, we added research findings to the beginning of the presentation that show the evidence that brief screening tests are valid, that brief intervention is

effective, and that physicians often miss the diagnosis unless a universal screening strategy is used. Evidence (and guidelines issued by national professional organizations respected by the physician in a particular specialty) helps convince physicians of the utility of adding a task to already busy patient care encounters. Evidence that brief screens exist and are valid supports that end too. Similarly, evidence regarding brief intervention success was added with some detail regarding the content and mechanics of these proven methods.

One challenge in the field of alcohol screening and intervention has been that discussions about alcohol are more complex than those about another substance commonly addressed in primary care settings, tobacco. The act of smoking is dichotomous and because there is no safe level of use, intervention aimed at abstinence is the main approach. As is clear from the research literature and algorithms in the *Physicians' Guide*, alcohol is more complicated. Some persons can drink safely. Some may benefit from low risk drinking. The amounts associated with safe and even healthy drinking are very close to the amounts at which long-term consequences can be detected. Physician-learners must balance information about negative consequences of alcohol use and possible benefits. And patients and physicians may not recognize alcohol consequences. As a result screening, assessment and intervention for unhealthy alcohol use is much more complex. Presentations that focus exclusively on consequences may be seen as “biased” by physician-learners who are aware of the extensive literature of alcohol’s potential benefits. To address these issues, the ACT curriculum includes research data on the short-term consequences of binge drinking, and a presentation based on the distinction between safe and hazardous (risky) drinking, and the differences between risky drinking amounts, drinking with early or few consequences, and alcohol abuse and dependence.

The ACT curriculum also adds a brief section on the assessment of readiness to change and a stage-of-change-based approach (with specific sample language) to the brief intervention. This section is closely linked to cases for role-play. The section on brief intervention was expanded to include alcohol specialty consultation or referral to specialty treatment when indicated and accepted, and a brief exposure to pharmacotherapy options in the context of psychosocial therapy.

The cases in the NIAAA training guide were replaced. Two major modifications were made. First, rather than use the cases for screening followed by a group discussion of what advice to give, the emphasis was shifted to focus the case role-play on skills building around what to do with the results of screening—i.e. the content of a brief intervention tailored to the patient’s screening responses. The approach to the brief intervention is based on the principles of motivational interviewing and the stages of change. Three cases were developed that address risky drinking, problem drinking/abuse, and alcohol dependence. Faculty physician trainers and physician-learners are able to select from these cases as needed and as time allows. The second modification of the cases addresses health disparities (see below). The cases also form the basis for video clips of patient-physician interactions demonstrating screening and brief intervention, which can be used as “trigger” tapes along with the slides and role-plays. The video interactions serve as departure points for discussion, and demonstrate key skills. These skills include: screening, assessment, brief intervention, communication, empathy, understanding of the patient’s perception of illness, challenging physician assumptions, negotiation of treatment plans, and overcoming barriers to trust, among others.

Health disparities. Health disparities are addressed in the ACT curriculum in an integrated fashion, as previously discussed, based on effective patient-centered interviewing techniques, and anthropologic and cross-cultural research. Health disparities addressed in the curriculum (in addition to disparities because of unhealthy alcohol use per se) include race, gender, ethnicity, culture, and social and economic context (age, income, sexual preference, education). The epidemiology of unhealthy alcohol use by group is addressed with emphasis on breaking stereotypes. It is noted that improving cross-cultural efficacy may lead to better health outcomes, thereby lessening health disparities.

The introductory segment of the presentation includes evidence that physicians identify unhealthy alcohol use preferentially based on stereotypes and therefore often miss diagnosing alcoholism. This evidence supports the notion, and the national recommendation (2) that all adults be screened for unhealthy alcohol use (universal rather than targeted screening based on a risk factor or patient characteristic, assumed or real). Evidence is also presented supporting the efficacy of a patient-centered but directive counseling style that can be used in primary care

settings—motivational interviewing. This interviewing approach requires assessing and understanding the patient’s view, an essential feature of efficacious cross-cultural primary medical care.

In addressing the definitions of alcohol use disorders, it was important to teach physicians self-awareness: to recognize their own cultural outlook, assumptions about others, and the fact that as humans, these perspectives limit us all. The curriculum includes specific skills training for empathy, respect and partnership with those whose perspectives the learner may not share or even understand.

The brief intervention portion of the materials includes practical suggestions on how to implement screening and brief intervention in a manner that has cross-cultural efficacy. For example, one of the keys to a successful brief intervention is the eliciting and welcoming of the patient’s point of view on, and expectations of drinking (what is a drink? what is normal drinking?).

The cross-cultural efficacy content was derived from a model (21) and curricular approach (22) that has been published in the internal medicine literature, and is therefore more likely to be used by internists. These models provided the basis for a mnemonic that summarizes the knowledge, attitudes and skills relevant to addressing racial, socioeconomic and ethnic barriers in patient care encounters—RESPECT. R=Respect, an attitude towards patients demonstrated by both verbal and non-verbal communication. E=Explanatory model, the physician’s and patient’s points of view about their illness. S=Socio-cultural context, their class, education, race, ethnicity, gender, norms, preferences and many others, that influence how patients view health problems and risks. P=Power, the need to recognize its differences between doctor and patient. E=Empathy, making certain the patient feels understood and cared for. C=Concerns and fears, which must be elicited from patients. T=Therapeutic alliance and trust, necessary conditions for any successful patient-physician encounter and for negotiating explanatory models and treatment plans.

The intent is that the cross-cultural efficacy approach be practiced during the associated role-plays. The main task is to understand a variety of explanatory models for alcohol use. For example, a patient may view alcohol as a beverage, while the physician views it as a drug. In fact, regardless of culture, patients in the precontemplation stage of readiness to change alcohol use generally have a different explanatory model for their use than the physician—the patient thinks they have no problem; the physician disagrees. The essential skills in this cross-cultural efficacy approach include three steps: 1) eliciting and understanding the meaning of the patient’s alcohol use, and how they view problem use (as applicable), 2) a social context “review of systems” to help physicians understand the context of alcohol use, and 3) a negotiation of explanatory models between patient and physician to identify areas of agreement and discrepancy in how the patient and physician understand the drinking behavior, and to identify priorities for action. Attention will also be drawn to the fact that assumptions about the physician-patient relationship may need to be open to question. For example, a patient-centered approach may discover that a patient prefers a prescriptive approach to their health care by the physician, or quite the opposite. Examples of how differences between patient and physician understanding can interfere with alcohol screening and brief intervention are included.

The cases for the role-plays all involve cross-cultural challenges in screening and brief intervention. Race or ethnicity is specifically mentioned so that the learner needs to consider the approach to screening. Cases include differing patient beliefs and explanatory models about safe and harmful drinking amounts, about what constitutes a drink, about the susceptibility to problems, and about alcohol as a voluntary or moral problem versus a more biomedical understanding.

Curricular Outline.

1. Selected health consequences of alcohol use
2. The spectrum of alcohol use: safe/healthy vs. risky, and abuse/dependence
3. Epidemiology of alcohol use and problems; socioeconomic and racial, ethnic and gender variability
4. Unhealthy alcohol use often missed, and missed differentially based on race/ethnicity/gender/socioeconomic status

5. Effects of physician culture on doctor-patient communication screening, assessment and intervention
6. Screening:
 - Evidence regarding screening tools
 - Racial, ethnic, age and gender variability in screening tool validity
 - How to screen for unhealthy alcohol use
 - Assessment of severity after screening
 - Readiness to change assessment
7. Brief Intervention:
 - Evidence of efficacy
 - Description of components
 - Cross-cultural efficacy in the care of unhealthy alcohol use (includes eliciting patient's explanatory model)
 - Brief intervention for unhealthy alcohol use (including role-play cases)
 - Stage-based approaches (with specific statements that can be made in counseling)
 - Specialty consultation or referral
 - Pharmacotherapy in the context of psychosocial treatment

Formative Testing and Evaluation Methods

The curriculum was pilot tested in the following three groups of physicians for the purpose of making revisions to the curriculum based on input from learners in real practice settings caring for diverse (economically and culturally) patient populations.

- Primary Care Internal Medical Residents. On February 20, 2004, the curriculum was presented in a 2½-hour seminar as part of an existing series in the Primary Care Internal Medicine Residency Training Program to 11 residents in internal medicine at Boston Medical Center (BMC). Pre- and post-tests were administered and qualitative feedback was solicited.

- Primary Care Residency Program Faculty. On March 31, 2004, the curriculum was presented in a 1-hour session for 15 BMC primary care residency program faculty. Qualitative feedback was solicited from attendees.
- Primary Care Physicians. On October 19, 2004, the curriculum was tested in one half-day session for 30 practicing primary care physicians in the BMC Health Net Plan (HNP). The Plan facilitated the recruitment of physicians caring for minority patients to participate in the pilot, in part because they care for many minority and underserved patients, and in part because minority patients are known to be disproportionately served by minority physicians. Pre- and post-tests were administered.

Implementation

Making the Curriculum Available on the Internet

After producing a quality curriculum, we posted the ACT curriculum and materials on the Internet to make it more likely to be used. All curricular materials were posted on the Boston University Medical Center (BUMC) Clinical Addiction Research and Education website at www.actproject.org and are available free of charge. To access the materials, software that is essentially ubiquitous amongst physician faculty (or free on the Internet) is needed: Powerpoint[®], a web browser (such as Internet Explorer[®] or Netscape Navigator[®]), and RealPlayer[®] or Windows Media Player[®] (for video). Contact information for faculty consultation is also posted at this site.

Training the Trainers Nationwide

Overview. Many curricula are developed and tested but not effectively disseminated. As a result they are not implemented with learners. In addition to the quality and content of the curriculum, it is also essential to address accessibility, ease of use, appropriateness for the targeted learners and availability of role models using the curriculum. The ACT Project has identified and trained key faculty nationwide in the use of the ACT curriculum. The secondary purpose of the training is to provide alcohol and health disparity content in person to interested faculty. However, the primary purpose is to facilitate the dissemination of the ACT curriculum to faculty in residency training programs nationwide. To that end, the ACT Project has introduced key faculty to the

curriculum in an accepted academic forum, where faculty were able to interact with the developers of the curriculum and ask questions.

The ACT Project has conducted faculty development workshops in the use of the ACT curriculum twice each year as a component of or at least linked with three national meetings of the key professional organizations, the Society of General Internal Medicine (SGIM) and the American College of Physicians-American Society of Internal Medicine (ACP), and the Association for Medical Education and Research in Substance Abuse (AMERSA). The budget for this component was developed to support a minimum of 20 trainees at each workshop.

Trainings.

- AMERSA, November 2004 – Drs. Saitz, Alford, and Chapman conducted a 2-hour workshop for 11 substance abuse experts. Post-workshop tests were administered to participants.
- SGIM Regional, March 2005 – Dr. Daniel Alford and Ms. Naomi Freedner conducted a 1.5-hour workshop to 3 general internists with an interest in alcohol. Post-workshop tests were administered to participants.
- ACP, April 2005 – Drs. Saitz and Alford presented a 3-hour Pre-Course to 20 physician educators. To encourage workshop attendance, the Project provided each attendee with \$500 in the form of an honorarium or reimbursement for travel expenses. A time-series quasi-experimental evaluation was implemented.
- SGIM, April 2006 – Drs. Daniel Alford and Peter Smith and Ms. Jessica Richardson conducted a 1.5-hour workshop for 11 general internists. Post-workshop tests were administered to participants.
- ACP, April 2006 – Drs. Saitz, Alford, and Chapman presented two 1.5-hour workshops to groups of 22 and 15 physician educators. Post-workshop evaluations were administered to participants.

Curriculum Evaluation

Formative Evaluation Results

For the purpose of making revisions to the curriculum based on input from learners in real practice settings caring for diverse (economically and culturally) patient populations, evaluations were conducted for each of the three pilot studies described above. Results include:

Primary Care Internal Medical Residents (N=11).

- Qualitative Comments
 - Case 2 & 3 patient debriefs were less helpful; participants felt they already knew everything that was confessed in the debrief. Case 1 debrief was more interesting because they got information they wouldn't have been privy to otherwise.
 - Some participants felt the first video was unnecessary; they all know a bad physician/patient interaction. Others felt that even though they know it, it's still a good reminder.
 - Several people thought the first case was too long
 - Too much information on screening questions and CAGE
 - Case for universal screening was belabored
 - Several of the PowerPoint slides were too wordy; consider revising some slides to mirror the NIAAA pocket-sized pamphlet included with the Clinician's Guide.
- Pre/Post Changes
 - Beliefs: already fairly high, not much room for change
 - Confidence: increased in a) assuring patients they were understood, and b) eliciting patient health beliefs
 - Intention: no change. Of note is that intention to use the CAGE is high at both timepoints, though current use of the CAGE was low (2.8).

Primary Care Residency Program Faculty (N=15).

Qualitative comments/questions:

- What is the effect of non first-degree relatives on risk for developing unhealthy alcohol use?

- Is there any data on the efficacy of self- assessments (ACASI, etc.) for risky drinking?
- Are there mechanisms for interactivity with web-based curriculum use?
- Possibility of an audio overlay for the web module
- Integrate more information about precontemplation/denial. Perhaps another case? A few comments that most patients are in this stage. Some discussion about emphasizing the point that through physician skill building, physician-patient interactions are more likely to move beyond denial. Include the point that readiness is also a quality of the physician; when they are more skilled, both the perception of denial and an actual response of denial may be less prevalent
- Include elderly patients in health disparities information
- Patient-centered and cross-cultural are trigger words. Additionally, curriculum isn't truly patient centered
- Emphasize more to the learner how difficult assessment/BI is. Discuss barriers more
- Case 1: too slick, too bogus (person commenting said while watching he though there was no way this patient didn't have a drinking problem). Will audience feel they were tricked? Consider inserting commentary about what the physician did wrong/could have done differently.
- Worry that the general public will not be comfortable using an entire presentation/curriculum that is someone else's work, despite that being its purpose. Present more as a toolbox? Teachers can choose the pieces they want.
- Reduce video time, especially case 2 and 3 (not sure what video clips were specifically being referred to).
- Good content, well-structured
- Include data on % of patients in precontemplation
- Baer: 2x2 table on confidence/readiness. Include as a concept?

Primary Care Physicians (N=30).

- Demographics
 - Male 68%
 - Mean age: 47
 - Ethnicity/Race: Hispanic 0%, White 71%, Asian 21%, Black 7%

- Non-US born: 43%
- Parents non-US born: 46%
- English first language: 68%
- Fluent in language other than English: 50%
- Year residency completed (mean): 1991
- Type of Practice: Small group 39%, Large group 29%, Academic hospital 18%, Solo practice 14%
- Knowledge
 - Risky drinking limits--Average drinks/week - Percent responding correctly
 - For men: Pre=32%; Post=90%
 - For women: Pre=36%; Post=77%
 - Risky drinking limits--Maximum drinks/occasion - Percent responding correctly
 - For men: Pre=7%; Post=93%
 - For women: Pre=21%; Post=73%
 - CAGE Acronym – Percent responding correctly: Pre=29%; Post=77%
 - Scenarios – Percent responding correctly

<i>Scenario 1</i>	<i>Pre test</i>	<i>Post test</i>
Drinking goal	75	90
Diagnosis	96	97
Stage of change	Action: 32; cont: 61	Action: 57; cont: 40
<i>Scenario 2</i>		
Drinking goal	Cut/abstain: 46 Cut: 29 Abstain: 25	Cut/abstain: 43 Cut: 47 Abstain: 10
Diagnosis	82	73
Stage of change	96	90

- Current Practice (pre-test only) - As with the residents, physicians rarely or sometimes use the CAGE to screen. This item was markedly lower than other current practice items.
- Beliefs – Little change in beliefs, except decrease in response to the question: “I am not interested in patients’ explanations and excuses for drinking at unhealthy levels”
- Confidence – Confidence increased on 4/7 questions
- Intentions – Little change in intentions, except in response to: “Assuring patients that they are understood.”

Website Evaluation

The ACT curriculum and website are evaluated via surveys of individuals who enter the website. The first time a user enters the curriculum download page of the ACT curriculum website, he/she is required to provide an e-mail address. Two weeks later, the website automatically generates and sends an e-mail to that address, requesting that the user fill out a survey evaluation (web link to the survey is provided in the e-mail). Two weeks after that, the user is sent a reminder e-mail if he/she has not completed an evaluation. Responses to the evaluation are summarized below:

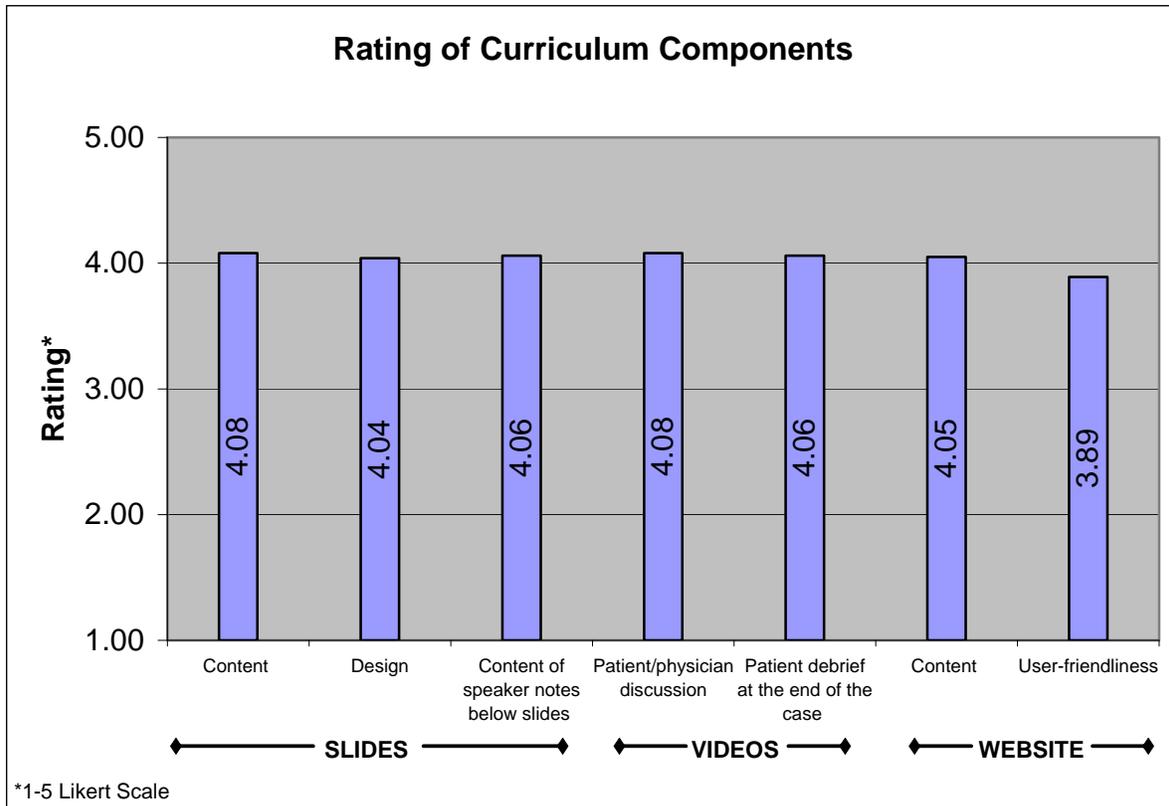
ACT Curriculum Website Evaluation Results

N=316

Characteristics	%
Female	53
White	78
English 1st Language	11
Position	
Addictions Counselor	18
Physician	24
Social Worker	13
Nurse or NP	12
Addictions Specialty	36
Primary Focus	
Clinical Care	37
Education	34
Research	10
Administration	9

Curriculum Use (or planned use) By Setting	
Setting	%
Self-Learning	51
Resident Conference	25
Medical Student Course	14
CME Course	13
Grand Rounds	4
Morning Report	3
Inpatient Rounds	2
Teaching during Patient Care	30
Other	24
Don't plan to use it	3

Curriculum Use (or planned use) by Feature				
	Slides	Notes	Video	None
	N (%)	N (%)	N (%)	N (%)
Case 1 (Ask)	174 (55)	144 (46)	122 (39)	43 (14)
Case 2 (Assess)	167 (53)	141 (45)	124 (39)	42 (13)
Case 3 (Advise)	165 (52)	138 (44)	121 (38)	45 (14)



Website Feedback. In addition to soliciting evaluation surveys from users of the ACT curriculum website, there is also a page on the website where users can send feedback to the site manager. Examples of such feedback include:

- March 2005 - Videos are terrific. Limited access to a projector makes showing them more difficult. Much of the program is based upon the films. Possibly offer a VHS video? Also, spend a little more time on what addiction is, its phases, denial, co-dependency and other topics related to addiction. I think it helps tremendously to have good background knowledge in addition to a screening tool. Many physicians lack this training.
- March 2005 - It will be extremely helpful if you could also do some local meetings in different geographical locations around the country and doing presentations by nationally known speakers.
- March 2005 – I couldn't get to see the curriculum because it became complicated with my computer.
- May 2006 - The National Organization Fetal Alcohol Syndrome and the HRSA Bureau of Primary Health Care are working on a project with five community health centers that will test procedures for screening women for alcohol use in order to prevent fetal alcohol spectrum disorders (FASD) and refer children with prenatal alcohol exposure for assessment. I have reviewed your excellent Core Curriculum on alcohol screening and brief intervention in the primary care setting and think it would be very effective resource for our project participants. We are coordinating a training session in Washington DC on June 12th – 14th and wondered if someone from your group would be available to present at our training session. I apologize about this very short notice; this project was literally “created” two weeks ago! I thank you for your consideration.
- May 2006 - I am interested in learning more about how this curriculum might be used in non-medical settings such as in workplaces to train HR, EAP, Work-life/HP, supervisory and other appropriate staff to effectively conduct SBI. Could someone contact me to set up a time that we can discuss my interest in your training program?
- August 2006 - I went through the training website and it is terrific. It's exactly the kind of site we were looking to create. When you say it's freely available and modifiable without permission, does that mean we can pull which videos and slides that would be

useful for the course and then create a new module geared to first year students? (of course it would be referenced). If instead, we refer students to this website, is there a way to track that each students' use of the site and a way to get the pre and post quiz info? Students have given us very positive feedback on modules we have created and we felt this topic would lend itself well to this. Thanks very much for bringing this to my attention.

Train the Trainers Workshop Evaluation

To assess whether the faculty are gaining the teaching and clinical skills addressed by ACT and whether the ACT curriculum is well received and used by physician faculty, evaluations were conducted on the Train the Trainers workshops at professional medical organization national meetings. The evaluations focused on changes in skills, practices and confidence with regard to clinical implementation and teaching of brief interventions for unhealthy alcohol use in primary care settings.

Time-series Quasi-experimental Evaluation.

- ACP, April 2005 – N=33

Objective: To study whether a free web-based alcohol curriculum would be used by physician educators and whether in-person faculty development would increase its use, confidence in teaching and teaching itself.

Methods: Subjects were physician educators who applied to attend a workshop on the use of a web-based curriculum about alcohol screening and brief intervention and cross-cultural efficacy. All physicians were provided the curriculum web address. Intervention subjects attended a 3-hour workshop including demonstration of the website, modeling of teaching, and development of a plan for using the curriculum. All subjects completed a survey prior to and 3 months after the workshop.

Results: Of 20 intervention and 13 control subjects, 19 (95%) and 10 (77%), respectively, completed follow-up. Compared to controls, intervention subjects had greater increases in confidence in teaching alcohol screening, and in the frequency of two teaching practices—teaching about screening and eliciting patient health beliefs. Teaching confidence and teaching practices improved significantly in 9 of 10 comparisons for intervention, and in 0

comparisons for control subjects. At follow-up 79% of intervention but only 50% of control subjects reported using any part of the curriculum (p=0.20).

Conclusions: In-person training for physician educators on the use of a web-based alcohol curriculum can increase teaching confidence and practices. Although the web is frequently used for dissemination, in-person training may be preferable to effect widespread teaching of clinical skills like alcohol screening and brief intervention.

Characteristics of the 33 Enrolled Physician Educators

	Intervention Group (N=20)	Control Group (N=13)	p-value
Male (%)	79	62	0.43
Race (%)			0.85
Asian	37	31	
Black/African American	11	8	
White	37	54	
Other	16	8	
Hispanic (%)	5	8	1.00
English First Language (%)	58	54	1.00
Has Substance Abuse Expertise (%)	50	54	1.00
Mean Age	41	45	0.14
Mean # Fluent Languages	2	1	0.37
Mean # Years Since Residency	10	11	0.56

Baseline to follow-up change in 5 domains of teaching confidence and specific teaching practices

	Intervention (N=18) [†]	Control (N=9) [†]	Between- group P-value
Teaching Confidence[§]			
Alcohol screening	+ 1.24**	+ 0.11	0.006
Assessment of readiness to change	+ 1.00**	+ 0.11	0.06
Counseling about alcohol problems	+ 1.18**	+ 0.44	0.12
Eliciting patient health beliefs	+ 1.29**	+ 0.67	0.23
Assuring patients that they are understood	+ 1.47**	+ 0.56	0.07
Specific Teaching Practice Frequency[¶]			
Alcohol screening	+ 0.56*	- 0.56	0.02
Assessment of readiness to change	+ 0.44	- 0.44	0.09
Counseling about alcohol problems	+ 0.67*	- 0.22	0.08
Eliciting patient health beliefs	+ 0.81**	- 0.33	0.03
Assuring patients that they are understood	+ 0.94*	+ 0.11	0.18

*p<.05; **p<.01; in within-group comparisons of baseline to follow-up change

[†]Baseline data were missing for one subject with follow-up data in each group (1 of 19 in the intervention group and 1 of 10 in the control group)

[§]5-point Likert scale, where 1=Not at all Confident and 5=Very Confident

[¶]5-point Likert scale, where 1=Rarely and 5=Always

Proportion with Curriculum Use at follow-up

	Intervention Group (N=19) N (%)	Control Group (N=10) N (%)	p-value
Any curriculum use	15 (79)	5 (50)	0.20
Slide Use	11 (58)	4 (40)	0.17
Notes Use	7 (37)	2 (20)	0.26
Audio Use	0 (0)	1 (10)	0.39
Video Use	3 (16)	1 (10)	1.00

Post-Test Evaluations

- **AMERSA, November 2004 (N=11)**

Curriculum Ratings (N=11)	Mean[^]
SLIDES	
Content	4.7
Design	4.9
VIDEOS	
Content	4.6
Patient/Physician Discussions	4.6
Patient Debriefs	4.7

[^] Based on 5-pt Likert Scale where 1=Poor, 5=Excellent

Curriculum Planned Use By Feature (N=8)			
	Slides	Notes	Video
	%	%	%
Case 1 (Ask)	63	50	88
Case 2 (Assess)	63	50	88
Case 3 (Advise)	63	50	88

Curriculum Planned Use By Setting (N=8)	
	%
Self-Learning	13
Resident Conference	63
Medical Student Course	50
CME Course	25
Grand Rounds	0
Morning Report	0
Inpatient Rounds	13
Teaching during Patient Care	13
Other	13

Qualitative Results:

- o More explicit articulation of cross-cultural component – i.e., whether power differential is truly mitigated (vs. made benevolent, rather than done away with)
- o The patient reflections are not as good as the rest
- o Excellent examples of good to excellent intervention

- **SGIM Regional, March 2005 (N=3)**

Curriculum Ratings (N=3)	
	Mean[^]
SLIDES	
Content	4.3
Design	4.3
VIDEOS	
Content	4.3
Patient/Physician Discussions	5.0
Patient Debriefs	5.0

[^] Based on 5-pt Likert Scale where 1=Poor, 5=Excellent

Curriculum Planned Use By Feature			
	Slides	Notes	Video
	%	%	%
Case 1 (Ask)	33	33	33
Case 2 (Assess)	33	33	33
Case 3 (Advise)	33	33	33

Curriculum Planned Use By Setting	
	%
Resident Conference	33
CME Course	33

- **SGIM, April 2006 (N= 11)**

Ratings (N=8)	Mean	Anchors of Rating Scale
Overall Session Rating	4.12	1=Poor, 5=Outstanding
Quality of Content	4.11	1=Poor, 5=Outstanding
Quality of Handouts	4.37	1=Poor, 5=Outstanding
Faculty Presenters	4.11	1=Poor, 5=Outstanding
Audiovisual Materials	4.16	1=Poor, 5=Outstanding
Audience Interaction	4.11	1=Poor, 5=Outstanding
Prior Knowledge of Topic	6.55	1=Poor, 10=Expert
Audience Size	1.37	1=Too Small, 3=Too Big
Likelihood of Change	3.25	1=Definitely will not change, 5=Extremely likely to change
Would Recommend	3.82	1=No, 5=Definitely

- **ACP, April 2006**

Session 1

Curriculum Ratings (N=22)	
	Mean[^]
Overall Quality of Session	4.35
Addressed Stated Clinical Question	4.65
Learned Something New, Will Apply in Practice	4.82
Balanced Presentation	4.69
Faculty	4.61

[^] Based on 5-pt Likert Scale where 1=Poor, 5=Excellent

Session 2

Curriculum Ratings (N=15)	
	Mean[^]
Overall Quality of Session	4.67
Addressed Stated Clinical Question	4.92
Learned Something New, Will Apply in Practice	4.92
Balanced Presentation	4.75
Faculty	4.55

[^] Based on 5-pt Likert Scale where 1=Poor, 5=Excellent

Abstract Publications – See Appendix for poster presentations

- 1) Alford D, Chapman SE, Dubé C, Freedner N, Schadt R, Saitz R. The alcohol clinical training project: a free online curriculum for use by generalist clinician educators. SGIM, May 13, 2005, New Orleans, LA (poster). J Gen Intern Med 2005;20(suppl 1):42.
- 2) Alford DP, Richardson JM, Chapman SE, Dube CE, Schadt RW, Saitz R. A Web-Based Alcohol Clinical Training (ACT) Curriculum: Is In-Person Faculty Development Necessary? SGIM, April 27, 2006, Los Angeles, CA and Research Society on Alcoholism, June 26, 2006, Baltimore, MD. Alcohol Clin Exp Res 2006;30(6)[supplement]:102A. J Gen Intern Med 2006;21(supplement):7, and AMERSA, November 2, 2006, Washington, DC.

Discussion

An online alcohol curriculum can reach many physician educators, and in-person training increases alcohol-related teaching. These results suggest that the web is an effective dissemination tool for educational materials but that additional efforts are needed to increase use of alcohol research and evidence-based practices by generalist physicians. The existing website will require continued attention, both for updating as well as for dissemination to educators. Although specific additions or changes are not planned at the moment, there is potential for expansion in several areas. For example, although the curriculum was designed for educators, many learners have used it for self-learning. Adjustments could be made to make the site more appropriate for this use (e.g. CME credits, language aimed at learners rather than teachers). Another expansion that would make logical sense would be to include screening and intervention for other drug problems, and pain management/opioid misuse. Additional modules would include medication management counseling, comorbidity (particularly psychiatric), how to implement screening and intervention in practice, and special populations (e.g. children). But as currently deployed, the curriculum website is a free, usable, useful resource for educators to train generalist physicians in alcohol screening, brief intervention, and cross-cultural efficacy.

Alcohol and Health: Current Evidence

Background

We created the newsletter *Alcohol and Health: Current Evidence (AHCE)* (www.alcoholandhealth.org) to fill an important gap in the medical literature. Before *AHCE*'s inception, no alcohol-related publications directed at primary care physicians (PCPs) focused on the spectrum of alcohol and health issues, including health disparities. Further, available research-summary publications did not necessarily serve all of the needs of practicing generalist clinicians. These publications are often too long for busy clinicians, available by paid subscription only, copyrighted, not tailored to PCPs, and not distributed on the Web. We felt that an evidence-based newsletter that integrated health disparity issues and was distributed by novel—but well-established and accessible—technologies would contribute substantially to the dissemination of research findings into primary care practice.

By creating and distributing this evidence-based newsletter, we hoped to raise the “status” of unhealthy alcohol use in both academic and clinical practice culture. PCPs often miss the diagnosis of unhealthy alcohol use. Also, because of the effects of alcohol on adherence to medical care and physician-patient relationships, patients with unhealthy alcohol use may receive less than adequate treatment for other conditions. Furthermore, physicians sometimes perceive alcoholism as less satisfying to treat and less treatable than other medical conditions and thus delegate responsibilities for screening and intervention to others. We hoped that a research-based newsletter would emphasize the importance of addressing alcohol issues and provide information of the same quality (to which physicians have become accustomed) as that available on other illnesses, such as asthma, heart disease, diabetes, and cancer.

Description

Alcohol and Health: Current Evidence is a free online newsletter that summarizes the latest clinically relevant research on alcohol and health. Through its summaries and other features, the newsletter aims to highlight alcohol issues and provide valuable information that can be applied in clinical teaching, practice, and research.

Published every two months, the newsletter includes the following features:

- Succinct and timely summaries of important alcohol research published in peer-reviewed journals; these summaries, which include commentary relevant to primary care practice, are written by physicians with clinical, research, and educational expertise in alcohol-related issues
- Particular focus on the latest research on alcohol and health disparities (e.g., gender, race, ethnicity, age, socioeconomic status)
- PowerPoint slide presentations that can be downloaded and used as teaching tools:
 - Update on Alcohol and Health, a “grand-rounds-like” presentation of the research summaries in the newsletter
 - Journal Club, which critically appraises a study highlighted in the newsletter using the *User's Guides to the Medical Literature*
- Free Continuing Medical Education (CME) credits
- Other Web-specific features to enhance the users’ experience, including a PDF version of the newsletter’s content, an option to subscribe to receive an “e-mail alert” each time a new issue of the newsletter is published, a search function, feedback form, and links to educational resources

For a “snapshot” of how some of these features appear on the newsletter site, see Appendix C1.

Implementation

Editorial Board and Other Staff

The following Editorial Board provides content for each issue of *AHCE*, including research summaries and questions for CME tests:

Richard Saitz, MD, MPH, FASAM, FACP

Editor

Professor of Medicine and Epidemiology

Associate Director, Youth Alcohol Prevention Center

Director, Clinical Addiction Research and Education Unit

Section of General Internal Medicine

Boston Medical Center

Boston University Schools of Medicine and Public Health

R. Curtis Ellison, MD

Co-Editor

Professor of Medicine and Public Health

Chief, Section of Preventive Medicine and Epidemiology,

Evans Department of Medicine

Director, Institute on Lifestyle and Health

Boston University School of Medicine

Joseph Conigliaro, MD, MPH, FACP

Associate Editor

Director, Program for Quality, Safety and Patient Rights

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Division of General Internal Medicine

Rhode Island Hospital

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Associate Professor of Medicine and Health Policy and Management

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University of Pittsburgh Schools of Medicine and Public Health

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Associate Editor

Professor of Medicine and Social and Behavioral Sciences

Chief, Section of General Internal Medicine

Boston Medical Center

Boston University Schools of Medicine and Public Health

Rosanne T. Guerriero, MPH

Managing Editor

Boston Medical Center

In addition to the above Editorial Board, various consultants at Boston University and Boston University School of Medicine have contributed to the newsletter. Rob Schadt, Ph.D., John McCall, the Data Coordinating Center, and Network Information Systems helped to design the site and create its databases (e.g., for subscriber information and feedback).

Editorial Process

Each member of the Editorial Board is assigned journals to review. From those journals (approximately 170 reviewed overall; see Appendix C2), editors generally choose 2 noteworthy alcohol-related articles to summarize. In addition, the Editor and Managing Editor run queries of various databases (e.g., Web of Knowledge) to identify important alcohol research and will notify the other editors if they identify an article “worthy” (relevant to primary care practice) of coverage.

The Editor and Managing Editor edit the “research summaries” (described further below) and send them to the Editorial Board for final review. Once finalized, the summaries are ordered according to “importance” (e.g., clinical soundness of the article, relevancy to primary care) and categorized by topic (e.g., Alcohol and Health Outcomes, Assessments and Interventions). Finalized research summaries are then used to create other website features, including the Update on Alcohol and Health presentation, the Journal Club presentation, and the Continuing Medical Education activity (each described below).

All features are uploaded to the website via Contribute, a content management software, and Dreamweaver, a web design and development software. Content of the research summaries is also entered into a database to allow visitors to search the site by various fields (e.g., keyword, date).

Newsletter Features

Research summaries. *AHCE* research summaries are based on high quality articles that are relevant to practicing clinicians. These articles report on primary or synthesis research in human subjects (e.g., systematic reviews, decision and cost-effectiveness analyses, clinical trials, epidemiologic and health services research studies) or promising basic and animal research that has clear implications for patients now or in the future. Articles on health disparities are given special consideration by the editors as they choose content for the newsletter.

Each issue of *AHCE* (which is published every 2 months) has about 12-14 research summaries. Research summaries are generally 250 words or shorter and contain a title, brief introduction, methods, results, commentary to put the study in practical clinical context, and a reference. Generally, the summaries fall into one of the following categories: Alcohol and Health Outcomes, Assessments and Interventions, Special Populations, and Journal Alerts (which alert readers to a recent journal that has dedicated an issue to an alcohol-related topic). For a sample research summary, see Appendix C3.

Update on Alcohol and Health slide presentation. Update on Alcohol and Health is a "grand-rounds-like" PowerPoint presentation that mirrors the content of each newsletter. Each

presentation generally includes 45–65 slides. Visitors can download the presentations and make any changes they deem necessary to fit their teaching needs.

Journal Club slide presentation. These presentations are geared towards anyone who leads a Journal Club session. They provide a critical appraisal, based on recommendations from the *Users' Guides to the Medical Literature*, of a study summarized in the newsletter.

The types of Journal Club presentations include the following: harm, therapy, prognosis, diagnostic tests, using review articles, subgroup analyses, and economic analysis of clinical practice.

Continuing Medical Education (CME) activities. Each issue of the newsletter offers a free CME activity. The activity involves reading a specific issue of *AHCE* and then completing a multiple-choice test of 6 questions that assesses comprehension of the information presented in that issue. CME credit (a maximum of 1.5 *AMA PRA Category 1 Credits*[™] and commensurate with the extent of participation in the activity) is awarded to participants achieving a score of 70% or better. Non-physician healthcare professionals can receive a certificate of completion.

After successfully completing a CME activity, participants will be able to

- recognize the importance of addressing unhealthy alcohol use in primary care settings;
- state the latest research findings on alcohol and health;
- when possible, incorporate the latest research findings into their clinical practice;
- articulate and increase their sensitivity to issues of alcohol and health disparities.

For information on CME utilization, see Evaluation.

Dissemination

Visitors to the site can subscribe for E-mail Alerts, which will notify them each time a new issue of *AHCE* is published. The Editor has also distributed the PDF version of the newsletter at various national meetings related to alcohol. Further, the content of *AHCE* summaries and/or the link to www.alcoholandhealth.org are also provided on related websites, including

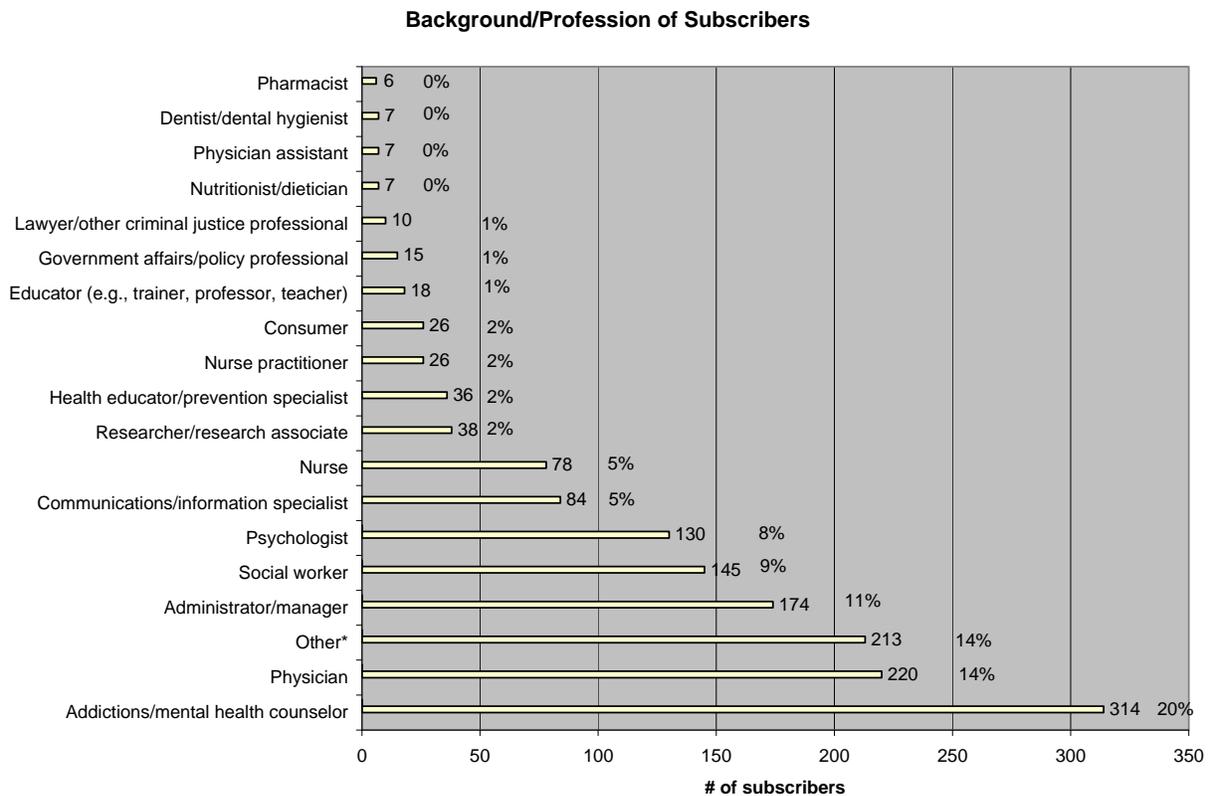
www.jointogether.org (the website for Join Together). For an additional list of websites that link to ours, see Referring Sites under Overall ACT Evaluation.

Evaluation

We collect a wide range of data to help us evaluate the newsletter and website:

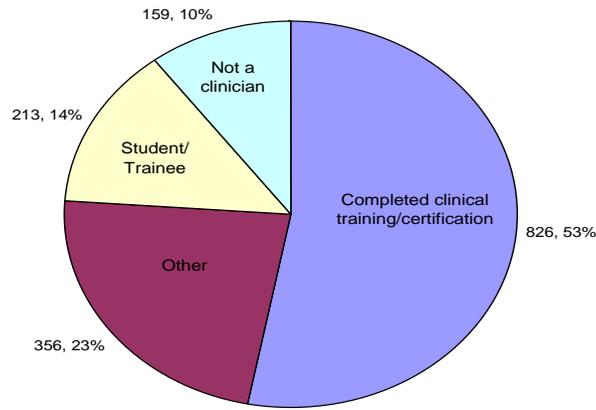
Subscriber Demographics

Approximately 1550 people subscribe to the newsletter. The most common groups of subscribers include the following: addictions counselors (20%), physicians (14%), and administrators/managers (11%). Most consider addictions as their specialty, completed clinical training/certification, and focus on clinical care.

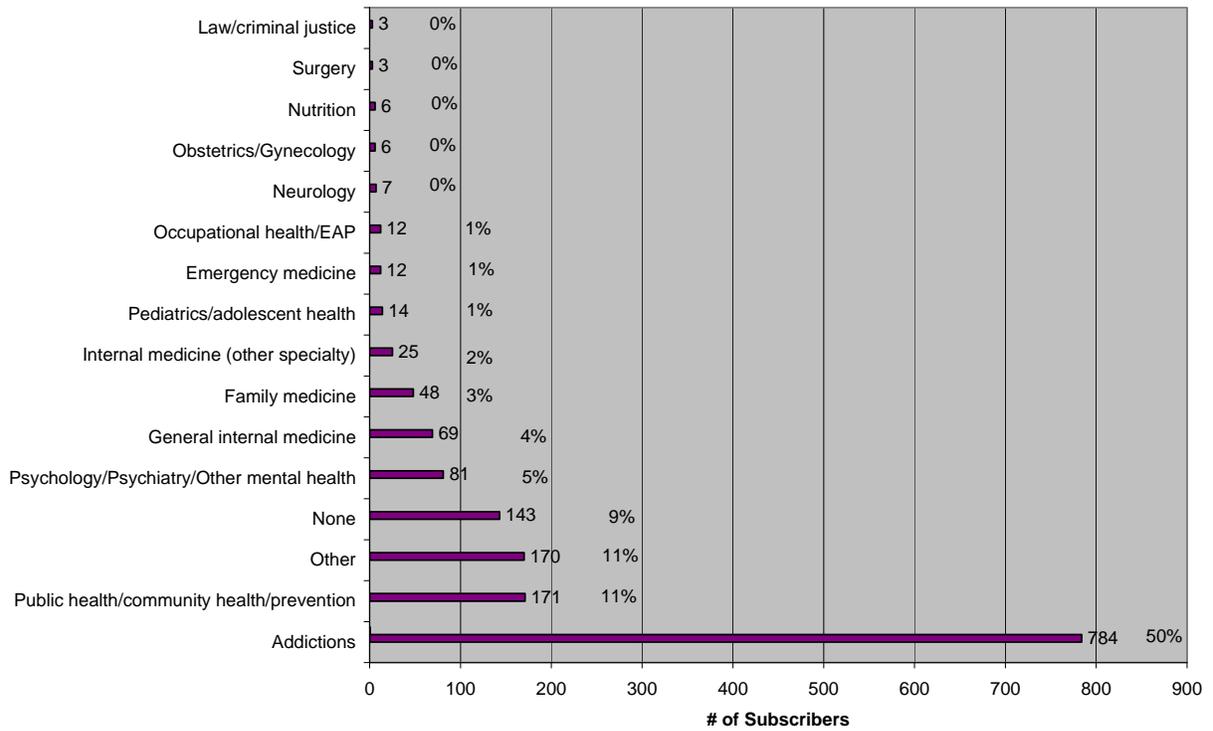


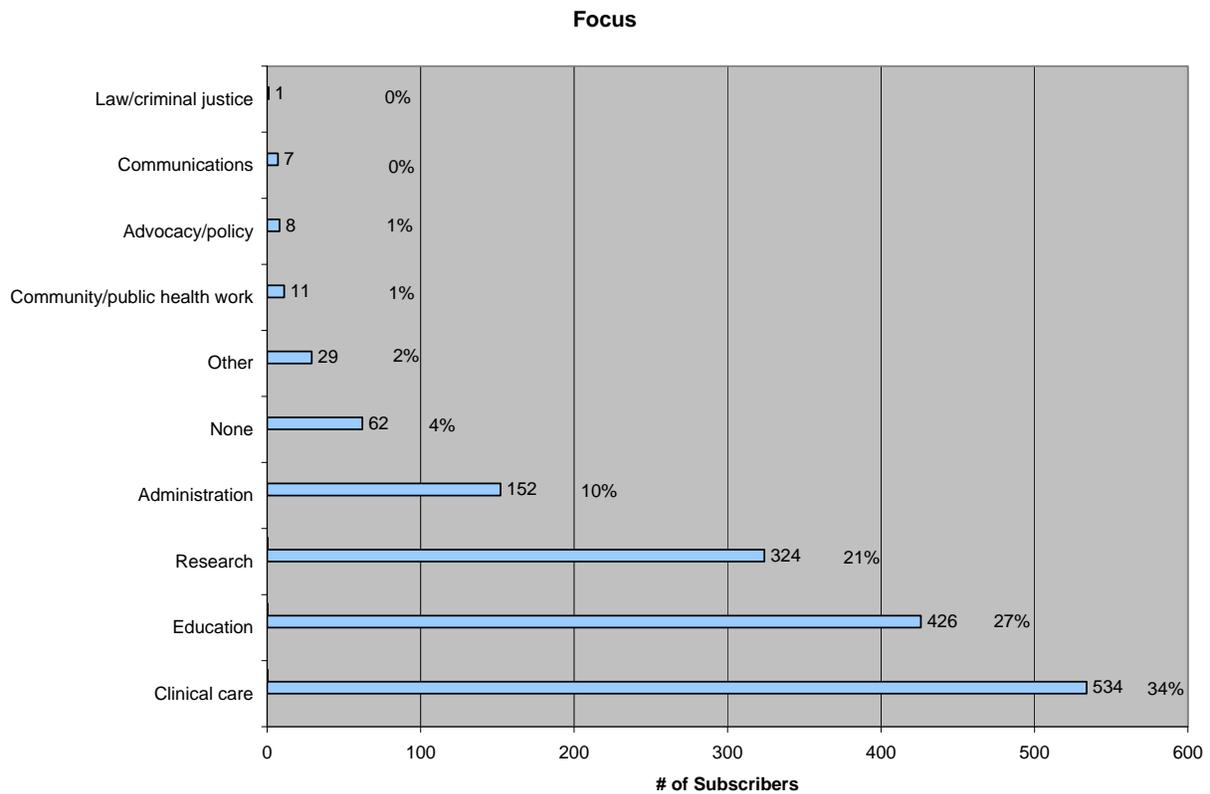
*Data on other was collected only after September 2004.

Training



Specialty





Subscriber Feedback from Survey

In November 2006, we surveyed subscribers to collect their feedback on the newsletter. About 12% (176) of all subscribers completed the survey. As indicated below, feedback was overwhelmingly positive:

- 81% were very or extremely satisfied with the website content
- 92% felt the research summaries were very or extremely useful.
- Almost all reported the newsletter was useful to their clinical practice, research, or teaching.
- Almost one-fourth of respondents have used an Update on Alcohol and Health or Journal Club presentation while teaching or presenting.
- Over 60% read at least half of the summaries in each issue.
- Comments included the following:
 - This is one of the most helpful newsletters I receive.
 - This is one of the few reliable sources for information on alcohol.

- This is an amazing resource, and I hope that you can continue it.
- It's a great resource that is quick and easy to use.
- I love this newsletter! Because it is a succinct summary of timely research, I share it with generalist physicians who have not been formally trained in alcohol screening, intervention, and referral.
- Excellent resource with the perfect balance for me of concise information but with enough detail to allow me to determine whether or not
- I need to examine the original source or not.
- Excellent content, very useful. Best online material I receive.

For more detailed survey results, see Appendix C5.

General Feedback

We have received approximately 70 e-mails and comments via an online feedback form about the newsletter. These e-mails can be grouped into the following categories:

- Recommendations for specific articles/topics to include in *AHCE* (e.g., GHB addiction, alcohol and injuries)
- Requests to add a link to *AHCE's* "Links" page (e.g., academic sites, recovery sites)
- General/technical questions about the site (e.g., requests to reproduce materials)
- Requests for additional information about one of the research summaries
- Requests for specific alcohol-related information (e.g., screening tools, experts to interview)
- General feedback, such as...
 - Just looked at *Alcohol and Health: Current Evidence* and you did an outstanding job.
 - This is a very informative online newsletter. I will be using the newsletter when I teach research to the nursing students...
 - I have just found your excellent alcoholandhealth website and newsletter. Can't quite believe I had not come across this before as it is very good.

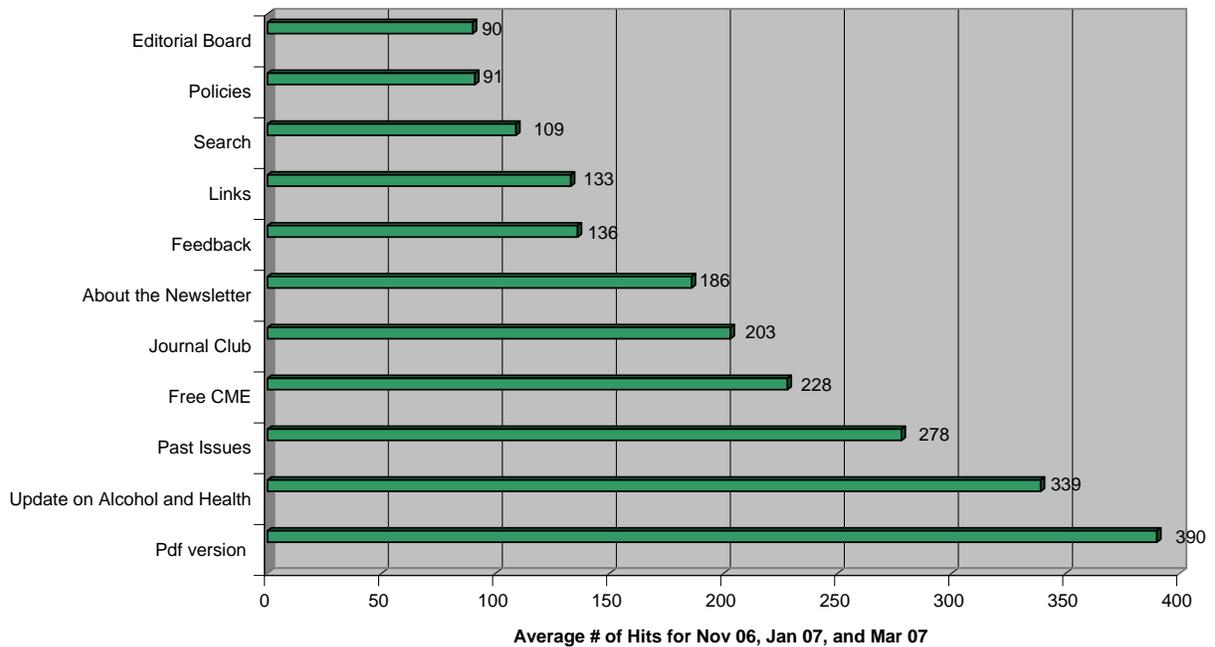
- Congratulations on the new “Alcohol and Health” issue. A great selection and nice summaries.
- Just want to tell you what a great service the letter is. Please keep up the good work.
- This was great—thank you.
- This is an excellent resource which I’ve been forwarding to everyone I know.
- Thanks for providing this service...it is very helpful!
- Congrats on getting this up and running. The site looks great.
- This is a great resource...
- This is awesome what your group is doing. Please keep this going strong...I especially find the updates and journal club presentation section most helpful.
- I work in a parole agency and learn so much from your articles. We have substance abuse problems with the majority of our parolees and I print out your articles for others to read. Keep the good work coming!
- Thanks for your useful info on characteristics of those who exceed the risky drinking limits...
- Thanks so much for your wonderful work!
- Just wanted to let you know that your *Current Evidence* service is a valuable resource to me in my practice as a doctor...

Web trends

The number of website pages visited has steadily increased since the newsletter’s inception—from 6,625 pages in May 2004 (the date of our first issue) to 44,948 in March 2007 (the month in which the last issue was published). Given that 5,426 individuals viewed www.actproject.org (either the newsletter *or* the curriculum) in April 2007, the average number of page views per viewer is at least 8.

The chart below indicates the most popular features, other than the research summaries, on average per month (based on data from November 2006, January 2007, and March 2007, months in which a new issue was published):

Most Popular Features



On average, one research summary receives about 520 hits over 2 months. Below is a listing of the most popular research summaries for the last 3 issues of *AHCE*:

March-April 2007

- All Relapses Are Not The Same (422 hits in March)
- Alcohol Intake Triggers Recurrent Gout Attacks (313 hits in March)
- Early-Onset Drinking May Increase Later Stress-Related Drinking (278 hits in March)

January-February 2007

- Brief Intervention in Primary Care: Does It Really Work in Practice? (351 hits in January)
- Moderate Drinking Lowers MI Risk in Men With Healthy Lifestyles (339 hits in January)
- Early-Onset Alcohol Dependence Is More Severe (322 hits in January)

November-December 2006

- Study Does Not Confirm Brief Intervention’s Efficacy (488 hits in November)
- Primary Care Clinicians Lack Comfort and Skills in Discussing Alcohol Use (465 hits in November)
- Moderate Drinking Impairs the Ability to See (437 hits in November)

For more information on web trends, please see the Overall ACT Evaluation.

Continuing Medical Education

Since we began to offer tests for CME credit in July of 2004, 110 people have taken a total of 468 tests. While most test takers are MDs, Doctors of Osteopathic Medicine, Physician Assistants, or Certified Nurse Midwives (63%), many are from the substance use and mental health counseling fields.

Interestingly, 51% of test takers have taken more than one test. Of tests taken, 96% have been passed on one or two tries. Seventy-five percent of the tests were completed in 1.5 or more hours; 21% were completed in about 1 hour.

Test takers appear to be pleased with the CME offerings, according to feedback on survey questions:

- This box describes the confidence of test takers on a number of variables related to the CME offering (5 indicates the highest level of confidence).

	1	2	3	4	5
I am confident that I can recognize the importance of addressing alcohol problems in primary care settings. (n=340)	1%	4%	12%	48%	36%
I am confident that I can state the latest research findings on alcohol and health. (n=337)	1%	4%	21%	51%	23%
I am confident that I can incorporate the latest research findings into my clinical practice, when appropriate. (n=336)	1%	5%	15%	52%	28%
I am confident that I can articulate issues of alcohol and health disparities. (n=336)	1%	2%	20%	51%	26%

- When asked which types of research summaries covered in a particular CME activity were *most* interesting, test takers offered a range of responses. Some topics listed more than once included alcohol and pregnancy/fetal alcohol syndrome, adolescent issues, elderly issues, alcohol and cancer risks, and interventions.
- When asked which types of summaries were *least* interesting, test takers generally stated most of the summaries were useful.
- In 125 instances, test takers indicated that they would change their practices as a result of a particular CME activity; in 146 instances, they would not change their practices. When asked how they would change their practices, many test takers stated they would increase or improve their screening and counseling efforts. In particular, test takers would increase/improve these efforts in the following groups: adolescents, women, minority women, emergency-department patients, and different ethnic groups.
- Test takers suggested the following when asked which types of research articles they would like to see summarized in the future: summaries similar to current offerings, latest screening methods, co-existing disorders, other substance use, interventions, youth issues, and special populations.
- Lastly, most test takers stated they had no suggestions for improvements. Some added the following comments:
 - Excellent
 - Great publication
 - More of the same
 - Very good
 - The summaries are clear and to the point
 - This is a very nice service. Thanks!

Discussion

Alcohol and Health: Current Evidence has been a success with readers who value its concise, expert-reviewed content. It has filled a niche.

While an online newsletter can reach many clinicians with the latest, relevant alcohol research, additional efforts are required to specifically reach generalist clinicians/primary care physicians. Further, although the web can effectively disseminate information, other strategies are needed to increase generalist physicians' use of alcohol research and evidence-based practices. Efforts to bolster use of the newsletter's educational tools (e.g., slide presentations) are also important. These tools are valued highly by the few educators who use them but can prove valuable to even a larger audience.

Future strategies to disseminate the newsletter should also target nonphysician readers, who already make up a substantial proportion of our current readers. One concrete step to increase value to other audiences would be to award continuing education units for professions other than medicine. Lastly, a broader content focus, including coverage of tobacco and other drugs, may be of interest to readers.

With support from the National Institute on Drug Abuse and NIAAA, we are able to continue the newsletter in an expanded form. In May 2007, *Alcohol and Health: Current Evidence* became *Alcohol, Other Drugs, and Health: Current Evidence* (www.aodhealth.org). This newsletter summarizes the latest clinically relevant research on *both* alcohol and other drugs (but not tobacco). Additional dissemination efforts are planned for this expanded website.

The editorial board for *Alcohol, Other Drugs, and Health: Current Evidence* includes the following:

Richard Saitz, MD, MPH, FASAM, FACP

Editor

Professor of Medicine and Epidemiology

Associate Director, Youth Alcohol Prevention Center

Director, Clinical Addiction Research and Education (CARE) Unit

Section of General Internal Medicine

Boston Medical Center

Boston University Schools of Medicine and Public Health

David A. Fiellin, MD

Co-Editor

Associate Professor of Medicine

Section of General Internal Medicine

Yale University School of Medicine

Julia H. Arnsten, MD, MPH

Associate Editor

Associate Professor of Medicine, Epidemiology, and Psychiatry

Chief, Division of General Internal Medicine

Albert Einstein College of Medicine

Montefiore Medical Center

R. Curtis Ellison, MD

Associate Editor

Professor of Medicine and Public Health

Chief, Section of Preventive Medicine and Epidemiology

Evans Department of Medicine

Director, Institute on Lifestyle and Health

Boston University School of Medicine

Peter D. Friedmann, MD, MPH

Associate Editor

Associate Professor of Medicine and Community Health

Director, Program to Integrate Psychosocial and Health Services in Chronic Disease and Disability

Providence VA Medical Center

Division of General Internal Medicine

Rhode Island Hospital

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Marketing of the ACT Curriculum and Online Newsletter

In addition to making the curriculum and newsletter available online and conducting Train the Trainers workshops on using the curriculum, we have disseminated and marketed these resources through various other modes.

National Meetings – Exhibits and Poster Presentation

The ACT curriculum and newsletter were presented and demonstrated as an exhibit at the April 2004 national meeting of the Society of General Internal Medicine (SGIM) (see Appendix for banner). Exhibits at SGIM are education and practice oriented, generally attended by nonprofit exhibitors. The project was also displayed as an exhibit at the national annual meeting of the Association for Medical Education and Research on Substance Abuse (AMERSA).

Diffusion Among Key Faculty

E-mail Notices

Short e-mails advertising the ACT products have been sent to program directors nationwide. These directors were asked to distribute our message (either by forwarding the e-mail or through another mechanism) to appropriate faculty in their program.

- Boston Medical Center Medicine Faculty –E-mail sent from the ad interim Chairman of Medicine in 7/2005
- Chief Resident Immersion Training (CRIT) Program –E-mails sent to all alumni from CRIT Program Manager in 8/2004 and 10/2005. As of 2007, all CRIT participants receive an automatic subscription, thereby reaching a sample of chief residents (educators) and their trainees nationwide.
- SGIM Substance Abuse task force –E-mails sent to the listserv from the list manager in 6/2004 and 7/2006
- Association for Medical Education and Research in Substance Abuse (AMERSA) –E-mail sent to members from the Executive Director of AMERSA in 7/2004 and 8/2006. E-mail sent to interested subscribers who signed a sign-up sheet at 2004 national meeting in 10/2004
- Research Society on Alcoholism (RSA) –E-mail sent to members in 10/2004 and 8/2006

- American College of Physicians (ACP) –E-mail sent to the ACT Weekly Observer list in 7/2004
- Association of Program Directors in Internal Medicine (APDIM) –E-mail sent to members from the president of the organization in 7/2004 and 8/2006
- National Institute on Alcohol Abuse and Alcoholism (NIAAA) –E-mail sent to members in 10/2004
- Join Together- E-mail sent to listserv in 10/2004
- BU CME listserv/CME events –E-mail sent to members in 10/2005

Advertisements

Advertisements were placed in several online and print journals (see Appendix for example).

- Eye on the Field- Free advertisement in online newsletter in 11/2004
- American Association of Patients and Physicians –Free advertisement in online newsletter in 3/2005
- Association of Teachers in Preventive Medicine (ATPM)– Free advertisement in online newsletter in 8/2005
- SGIM eNews –Free advertisement in online newsletter in 1/2006
- Society for Teachers of Family Medicine (STFM) and American Academy of Family Physicians (AAFP) - Sent ACT Postcards (see Appendix) to 20,500 members via postal mail in 3/2006
- SGIM Forum –Paid advertisement in online/print journal in 5/2006
- Family Medicine –Paid advertisement in print journal in 5/2006
- Journal of General Internal Medicine –Paid advertisement in print journal in 6/2006

Along with the advertisements that we have placed, the newsletter and curriculum are publicized by various websites who choose to link with us. For more information see Referring Sites.

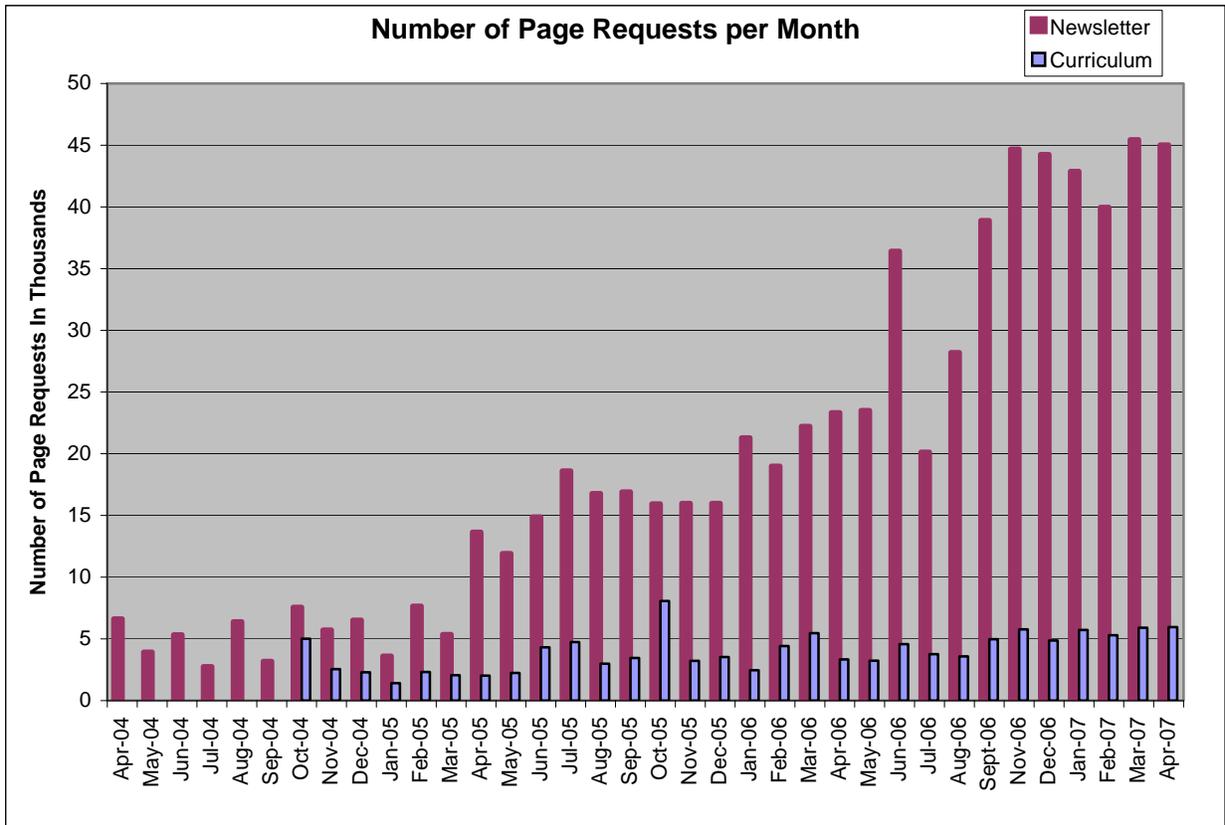
Promotional Items

We purchased and disseminated: Postcards (see Appendix for examples), post-its, and pens to promote the ACT products.

Overall ACT Evaluation – Curriculum and Newsletter

We collected website statistics/trends for the overall ACT website (i.e., inclusive of both the curriculum and newsletter sites). The Page Requests outcome can be separated for the two projects and is described below for each.

Page Requests



Referring Sites

Many visitors to both the curriculum and newsletter websites were “referred” by search engines. The search engines that generated the most “hits” to our websites, on average in February, March, and April 2007, include the following:

<i>Search engine</i>	<i># of hits to our websites based on search activity</i>
http://www.google.com	843
http://search.yahoo.com	183
http://search.msn.com/	40
http://www.ask.com	34
http://aolsearch.aol.com	9

A range of other websites link to the curriculum and/or newsletter websites. Visitors who found our websites indirectly were most frequently referred by the below websites (on average for February, March, and April 2007):

<i>Website</i>	<i># hits to ACT websites from the referring website</i>
http://www.alkoholpolitik.ch/ - (highlights world news on alcohol)	92
http://en.wikipedia.org/ - (the “free encyclopedia that anyone can edit”)	88
http://sbirt.samhsa.gov/ - (information about SBIRT, a SAMHSA initiative)	69
http://www.jointogether.org/ - (information on alcohol and other drug prevention and treatment)	57
http://alcoholreports.blogspot.com/ - (blog serving as an international clearinghouse for alcohol information)	22
http://www.ozrecover.net/ - (a site for people in recovery)	17
http://healthyhorns.utexas.edu/ - (university health services at the University of Texas)	9
http://www.dailydose.net/ - (“the world’s leading drug and alcohol news services”)	7
http://www.facesandvoicesofrecovery.org/ - (“organizing the recovery community”)	5
http://www.nhtsa.gov/ - (National Highway Traffic Safety Admin.)	5

References

- (1) United States Preventive Services Task Force. Screening and behavioral counseling interventions in primary care to reduce alcohol misuse. Recommendation Statement. April 2004. Agency for Healthcare Research and Quality, Rockville, MD. Accessed at <http://www.ahrq.gov/clinic/3rduspstf/alcohol/alcomisrs.htm> on May 9, 2006.
- (2) United States Preventive Services Task Force. Guide to Clinical Preventive Services. 2 ed. Washington, DC: Office of Disease Prevention and Health Promotion, 1996.
- (3) Fleming MF, Barry KL, Manwell LB, Johnson K, London R. Brief physician advice for problem alcohol drinkers. A randomized controlled trial in community-based primary care practices. *JAMA* 1997; 277(13):1039-1045.
- (4) Kristenson H, Ohlin H, Hulten-Nosslin MB, Trelle E, Hood B. Identification and intervention of heavy drinking in middle-aged men: results and follow-up of 24-60 months of long-term study with randomized controls. *Alcohol Clin Exp Res* 1983; 7(2):203-209.
- (5) Ockene JK, Adams A, Hurley TG, Wheeler EV, Hebert JR. Brief physician- and nurse practitioner-delivered counseling for high-risk drinkers: does it work? *Arch Intern Med* 1999; 159(18):2198-2205.
- (6) Allen JP, Maisto SA, Connors GJ. Self-report screening tests for alcohol problems in primary care. *Arch Intern Med* 1995; 155(16):1726-1730.
- (7) McGlynn EA, Asch SM, Adams J, Keesey J, Hicks J, DeCristofaro A et al. The quality of health care delivered to adults in the United States. *N Engl J Med* 2003; 348(26):2635-2645.
- (8) The National Center on Addiction and Substance Abuse at Columbia University. Missed Opportunity: National Survey of Primary Care Physicians and Patients on Substance Abuse. Conducted by the Survey Research Laboratory, University of Illinois at Chicago. New York, NY: Josiah Macy, Jr. Foundation, 2000.
- (9) Buchsbaum DG, Buchanan RG, Poses RM, Schnoll SH, Lawton MJ. Physician detection of drinking problems in patients attending a general medicine practice. *J Gen Intern Med* 1992; 7(5):517-521.
- (10) Coulehan JL, Zettler-Segal M, Block M, McClelland M, Schulberg HC. Recognition of alcoholism and substance abuse in primary care patients. *Arch Intern Med* 1987; 147(2):349-352.
- (11) Rydon P, Redman S, Sanson-Fisher RW, Reid AL. Detection of alcohol-related problems in general practice. *J Stud Alcohol* 1992; 53(3):197-202.
- (12) Saitz R, Mulvey KP, Plough A, Samet JH. Physician unawareness of serious substance abuse. *Am J Drug Alcohol Abuse* 1997; 23(3):343-354.

- (13) Kern DE, Thomas PA, Howard DM, Bass EB. Curriculum Development for Medical Education: A Six-Step Approach. Baltimore, MD: The Johns Hopkins University Press, 1998.
- (14) Green ML. Identifying, appraising, and implementing medical education curricula: a guide for medical educators. *Ann Intern Med* 2001; 135(10):889-896.
- (15) Quirk ME, Hatem D, Keller D. Teaching of Tomorrow. Goals, Needs, Objectives, Methods, Evaluation (GNOME). Worcester, MA: The University of Massachusetts Community Faculty Development Center, 2001.
- (16) Middleton KR, Hing E. National Hospital Ambulatory Medical Care Survey: 2004 Outpatient Department Summary. Advance data from vital and health statistics; no.373. Hyattsville, Maryland: National Center for Health Statistics. June 23, 2006.
- (17) Hing E, Cherry DK, Woodwell DA. National Ambulatory Medical Care Survey: 2004 Summary. Advance Data from Vital and Health Statistics; No. 374. Hyattsville, Maryland: National Center for Health Statistics. June 23, 2006.
- (18) Isaacson JH, Fleming M, Kraus M, Kahn R, Mundt M. A national survey of training in substance use disorders in residency programs. *J Stud Alcohol* 2000; 61(6):912-915.
- (19) Rogers DE, Blendon RJ. The academic medical center: a stressed American institution. *N Engl J Med* 1978; 298(17):940-950.
- (20) National Institute on Alcohol Abuse and Alcoholism. U.S. Department of Health and Human Services. *Helping Patients Who Drink Too Much: A Clinician's Guide. Updated 2005 Edition.* NIH Publication No. 07-3769. 2007.
- (21) Kleinman A, Eisenberg L, Good B. Culture, illness, and care: clinical lessons from anthropologic and cross-cultural research. *Ann Intern Med* 1978; 88(2):251-258.
- (22) Carrillo JE, Green AR, Betancourt JR. Cross-cultural primary care: a patient-based approach. *Ann Intern Med* 1999; 130(10):829-834.