2002 Annual Report
Learning Resource Center Project

Through the health care partnerships program, AIHA has supported the establishment of a total of 138 LRCs since 1995. Of these, 122 are still considered to be active, and 111 have continued to receive at least a basic level of support in FY02.

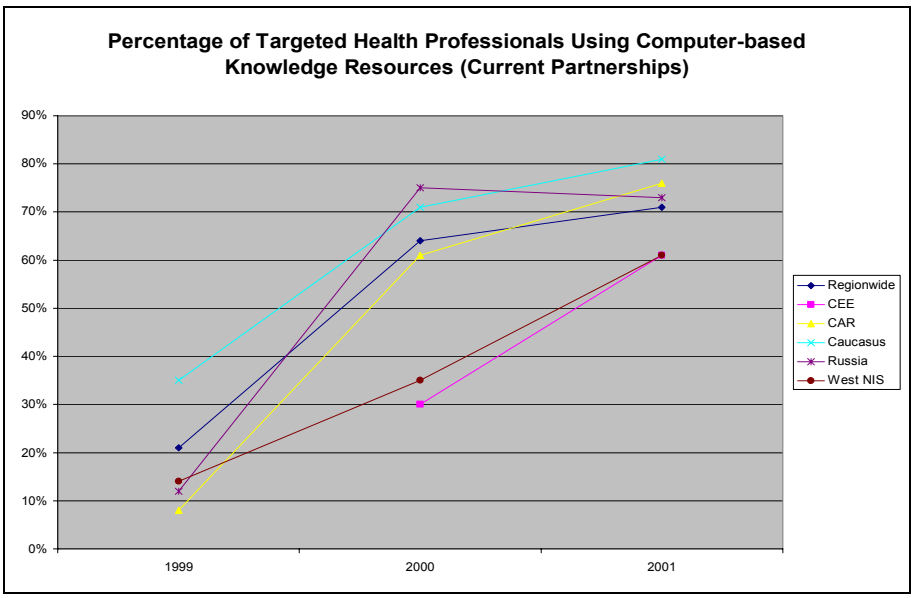
Objective 1: Increased access to up-to-date health care knowledge resources.

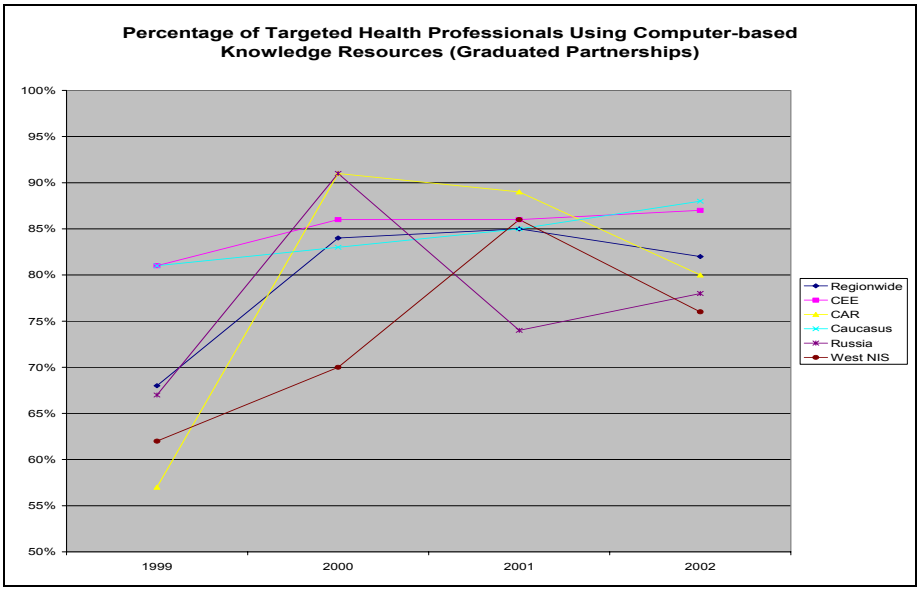
The six charts below show data obtained from annual surveys of staff at partner institutions. The first two show how many of these staff indicated that they are currently using computer-based knowledge resources (including the Internet, CD-ROMs, and on-line databases). The second two show what percentage of the information they receive is obtained from these resources. Finally, the last two charts show how many staff indicate that they have been adequately trained to use computers and the Internet.

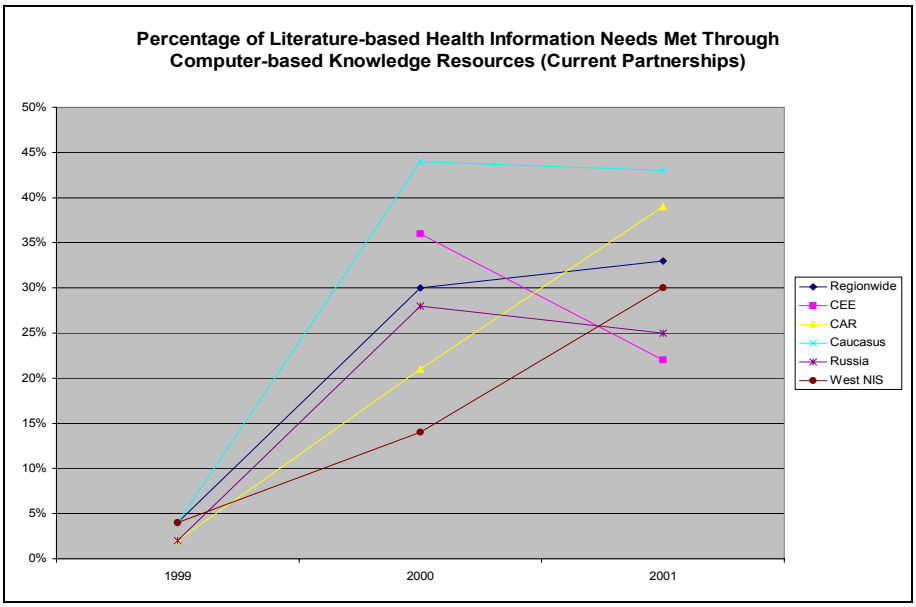
For current partnership LRCs, baseline data indicate that only 10-30% of health professionals at partnership institutions were using computer-based knowledge resources prior to the LRC being established and that these resources represented only about 4% of all information they received. Within three years, the number of staff using the Internet had risen to a range of 60-80%, and the Internet and CD-ROMs were providing between 25 and 40 percent of all information. Similarly, in 1999 the number of staff at current partnerships who felt they had been adequately trained to use the Internet was under 10 percent for all regions except for the Caucasus (which was 17 percent). By 2001, the region-wide average had risen to nearly 50%.

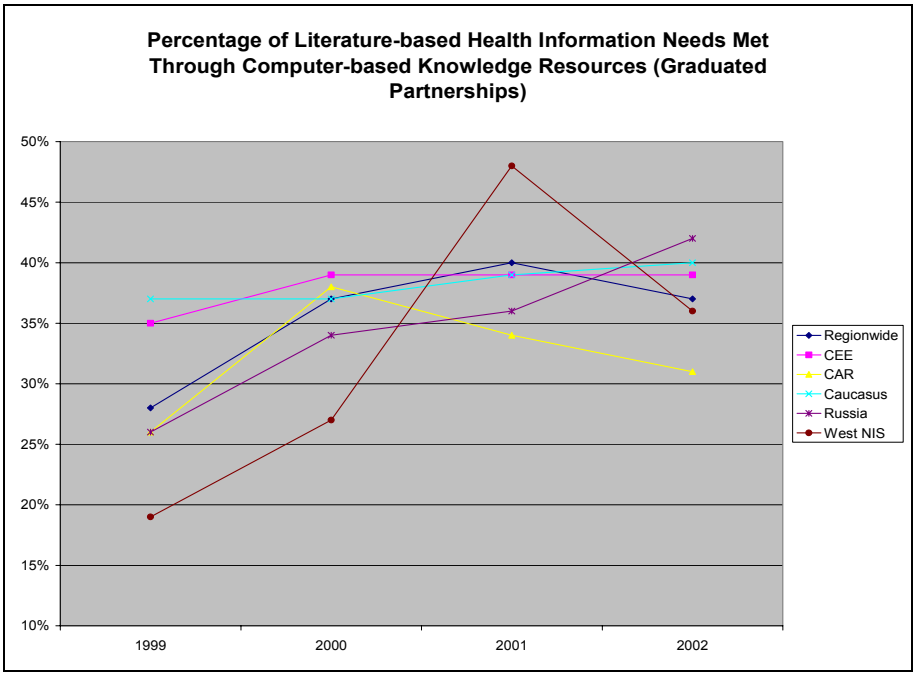
Graduated partnership LRCs, most of which were established three years earlier in 1996, had reached similar levels after three years of activity up to 1999. These institutions have continued to report a steady range of between 60 and 80 percent of health professionals using computer-based resources, which provides between 30 and 45 percent of their information.

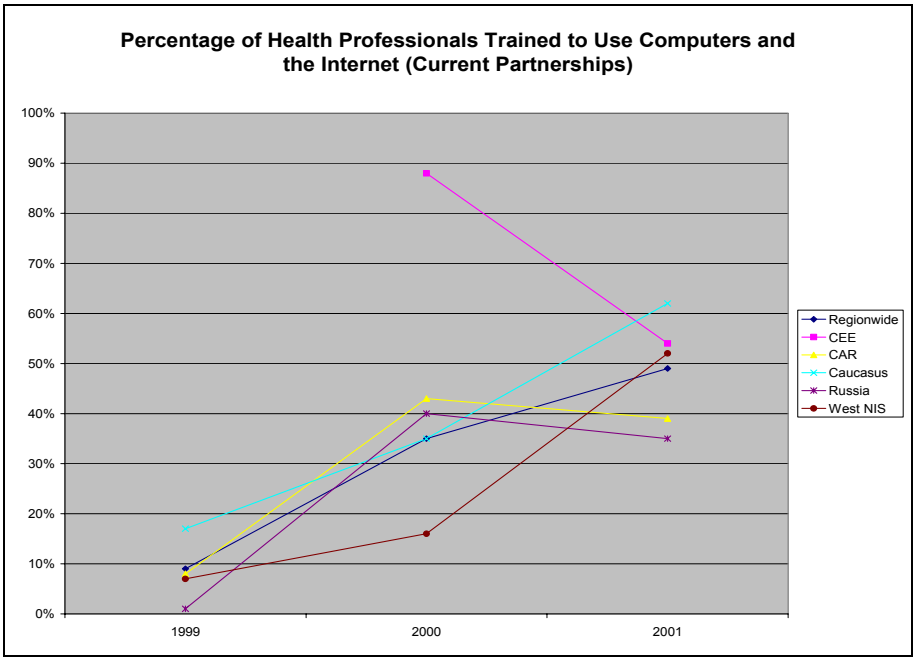
These data appear to indicate that the LRC model can significantly increase access to information for health professionals at institutions where individual desktop access to computers and the Internet is not yet available. Until individual desktop access is available, however, there are practical limits to what the Internet can provide. More critically, the LRCs provide access to information that is more regularly updated and presumably more evidence-based than the print resources that make up the remainder of health professionals' data sources.

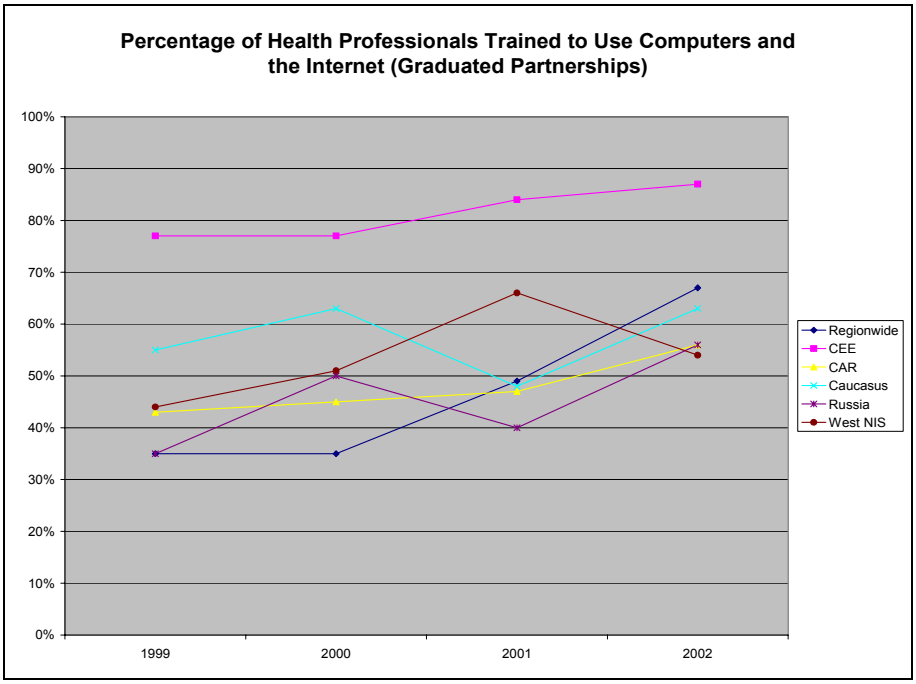



Percentage of Targeted Health Professionals Using Computer-based Knowledge Resources (Graduated Partnerships)
100%
95%
90%
85%
80%
75%
70%
65%
60%
55%
50%
1999
2000
2001
2002
Regionwide
CEE
CAR
Caucasus
Russia
West NIS

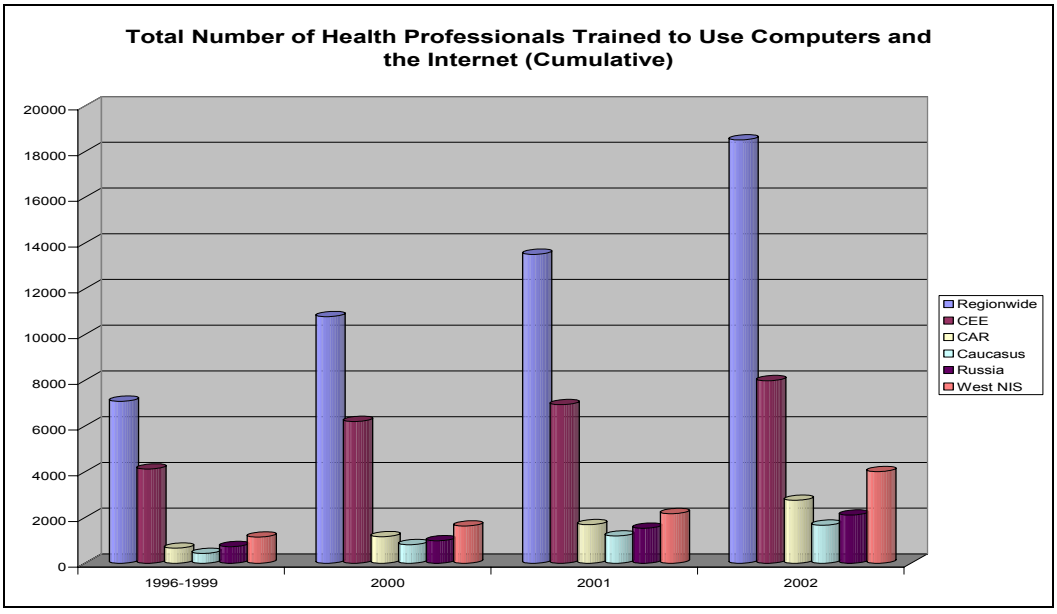

Percentage of Literature-based Health Information Needs Met Through Computer-based Knowledge Resources (Current Partnerships)
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
1999
2000
2001
Regionwide
CEE
CAR
Caucasus
Russia
West NIS


Percentage of Literature-based Health Information Needs Met Through Computer-based Knowledge Resources (Graduated Partnerships)
50%
45%
40%
35%
30%
25%
20%
15%
10%
1999
2000
2001
2002
Regionwide
CEE
CAR
Caucasus
Russia
West NIS

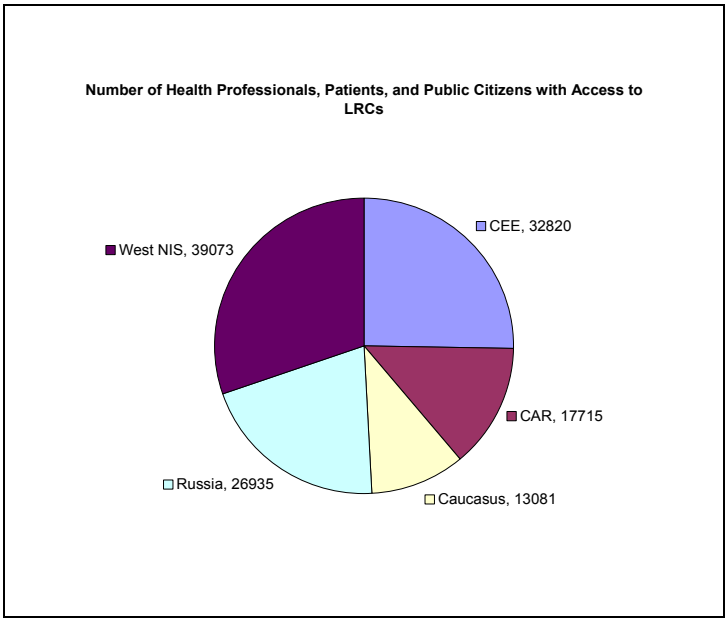

Percentage of Health Professionals Trained to Use Computers and the Internet (Current Partnerships)
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
1999
2000
2001
Regionwide
CEE
CAR
Caucasus
Russia
West NIS



To date, LRC staff have trained 18,511 health professionals to use computers and the Internet. As the chart below indicates, there continues to be a steady growth in the number of people trained each year.



The LRCs currently serve a community of over 129,000 health professionals, patients, and other local citizens. The chart below indicates the breakdown among each region.

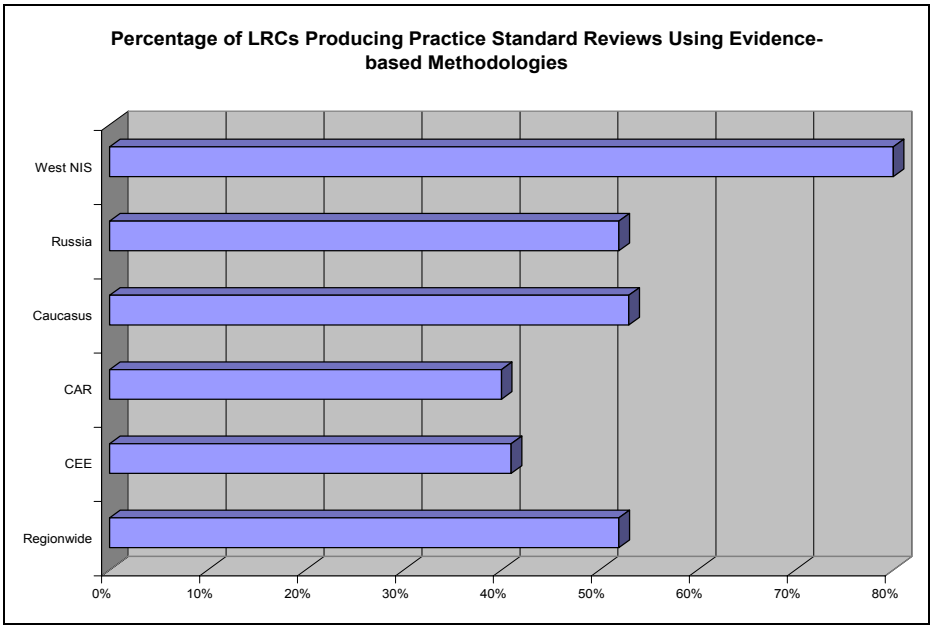


Objective 2: Increased promotion of evidence-based practice.

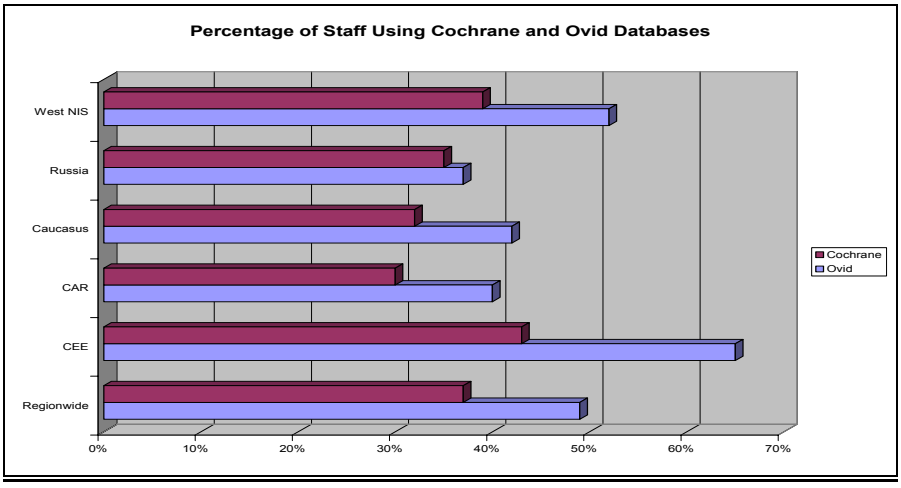
As part of AIHA's efforts to promote evidence-based practice, AIHA began requiring each LRC to produce something called a "Practice Standard Review" (PSR) in 2001. These were designed with the intention of helping partners to critically evaluate the literature on a particular topic of the partners' own choosing, related to clinical practice, health and social policy, or educational methodologies. In designing the PSR template, AIHA sought to create a simple step-by-step process that would guide partners through the process of posing an appropriate query, finding and reviewing the available evidence, and determining whether the evidence is consistent with existing practice.

Although many LRCs have been heavily involved with AIHA's clinical practice guidelines (CPG) initiative as well as efforts by some partnerships to develop guidelines, the PSR is not intended to serve as a simplified clinical practice guideline. Rather, the objective is to change the way many individual health professionals think about their own practice and the evidence which may or may not support it. Through the process of determining whether their own practice is consistent with current research evidence, it is hoped that they will gain a better understanding of the principles of evidence-based practice and learn how to apply this on a day-to-day level. This, in turn, should promote increased demand for the LRC's resources.

Although all LRCs have produced PSRs, these are not always prepared in a manner that is consistent with evidence-based practice. However, as the chart below shows, by 2002 nearly half of all LRCs have been able to demonstrate their ability to apply evidence-based methodologies. In making this evaluation, AIHA reviews each PSR to determine whether (a) the literature selected by the partners demonstrates that they have done a critical quality assessment, (b) that the partners showed an ability to tie the evidence to an existing practice, and (c) that at least one individual outside the LRC was involved in conducting the review.



Aside from the Internet itself, two of the most significant resources that LRCs provide to partners are the Cochrane and Ovid databases. The Cochrane Database of Systematic Reviews is one of the most widely respected producers of evidence-based literature reviews. The Ovid database includes a collection of over 30 full-text major medical journals as well as an easy-to-use MEDLINE interface. Together, these resources provide partners with an easy way to find evidence-based information. The data in the chart below was collected from annual surveys of AIHA partner institutions and represents the most current data for FY02. Prior to the LRC project, the number of partners with access to these resources was negligible.



Out of the 122 active LRCs, information coordinators from only 61 have received formal training in evidence-based practice/critical information quality assessment from AIHA. This is due largely to staff turnover at the LRC, in particular for information coordinators from graduated partnerships who were last trained in 1999. AIHA is planning to conduct a remedial training workshop in FY03, including a module on evidence-based practice, which is expected to add approximately 40 more information coordinators to these statistics.

Number of active information coordinators trained in evidence-based practice/critical information quality assessment

CEE	20
Central Asia	11
Caucasus	6
Russia	13
West NIS	11
Total Regionwide	61

Objective 3: Demonstrated ability to sustain access to knowledge resources independent of AIHA funding.

Given current economic conditions in CEE and NIS countries, AIHA believes that it is not possible at this time for many of its partner institutions to be able to afford a reasonably high quality Internet connection that can support sufficient access to knowledge resources for its staff. Nevertheless, AIHA does encourage its partners to try to share some of the costs and/or find other sources of support for the LRC and its capabilities. Partner institutions currently cover the costs of staffing the LRC as well as furniture and most supplies. Also, AIHA has tried to support Internet connectivity at a relatively low cost (between $50 and $150 per month, depending on local conditions) in the expectation that many partner institutions will be able to take over all or part of these costs on their own after AIHA/USAID funding ends. AIHA has also made sure that partners understand that support for Internet connectivity will not be able to continue indefinitely and therefore they should be working to find other ways to fund this.

At the end of FY02, 42 out of 122 (or 35%) of all active Learning Resource Centers were paying fully for Internet connectivity on their own. The majority of these (28) are from CEE where economic conditions are generally better and many of the partnership institutions are universities, large hospitals, or government health departments, which generally have a greater ability to obtain funding for resources like Internet connectivity. In other regions, some partner institutions have indicated that because they are state-funded organizations, they are not legally able to use money for expenses such as the Internet. As the potential of the Internet becomes more evident to leaders in this part of the world, it is hoped that national and local health authorities will increase their willingness to provide this kind of support—as some leading countries have already started to do.

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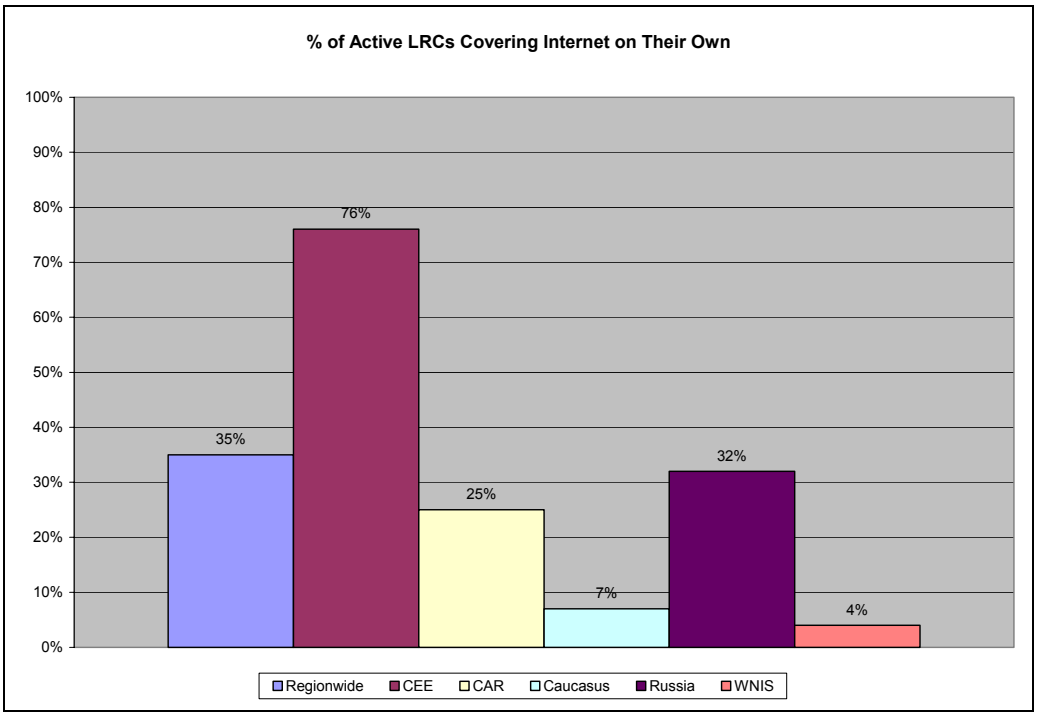
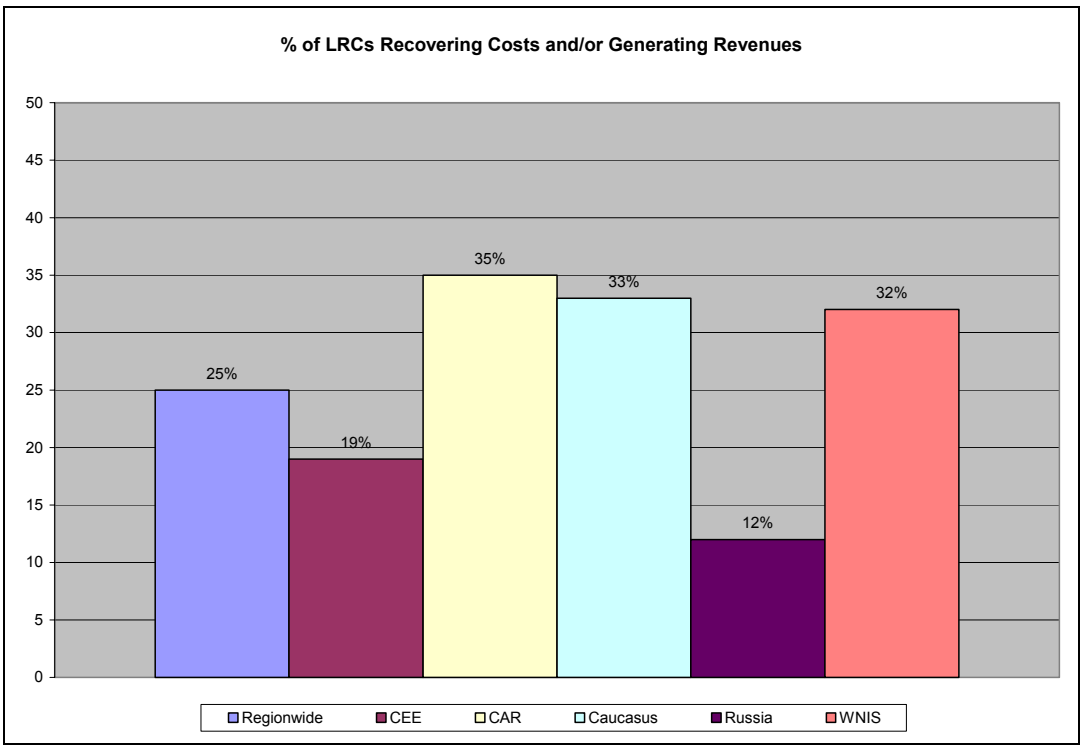
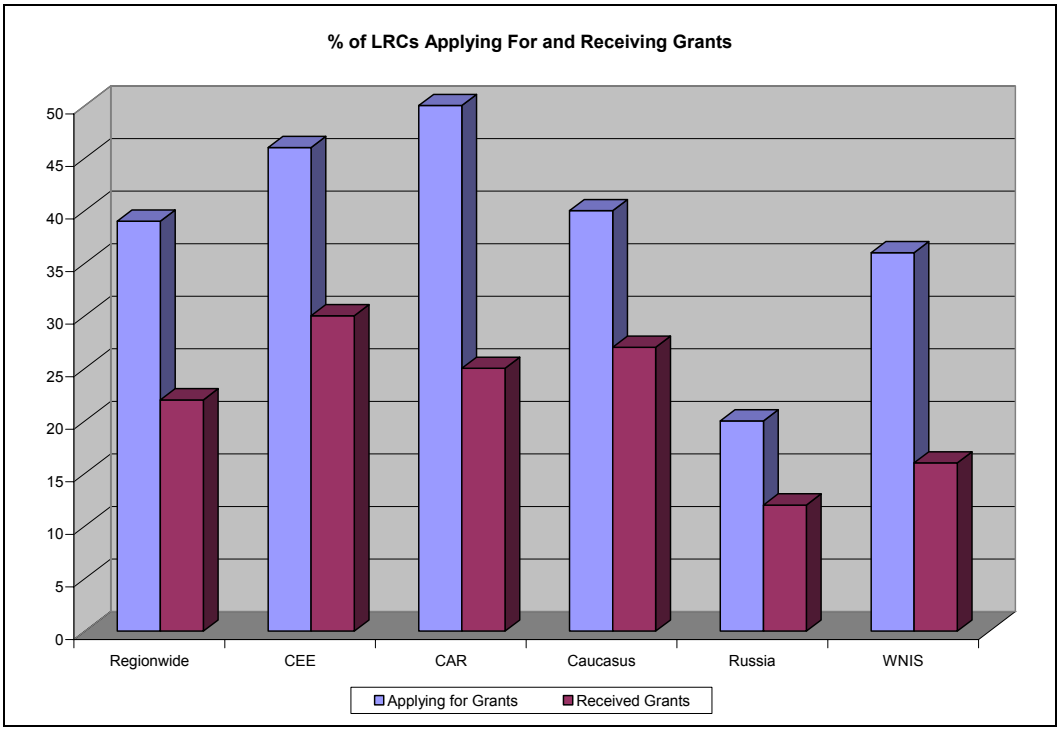


By FY02, 25% of all active LRCs have implemented various mechanisms for cost recovery and revenue generation from outside sources. The examples of such activities include fees for copying, e-mail, information searching and other services; equipment and room rentals; professional services such as Web design, desktop publishing and programming; and Web hosting and Internet provider services. It should be noted, however, that none of these LRCs have been able to generate sufficient revenues to fully recover the costs of the Internet connectivity, nor is it expected that they would be able to raise enough money by charging for these types of services given that these are health institutions. Ultimately, AIHA expects that the only long-term model for sustainability is for partner institutions to find ways to cover these costs out of their existing budgets.



Another possible solution to the sustainability problem for LRCs is grants from foundations and other organizations. AIHA has provided several training modules on grant proposal writing and overall sustainability strategies. These have been attended by staff at 73 out of the 122 currently active LRCs.

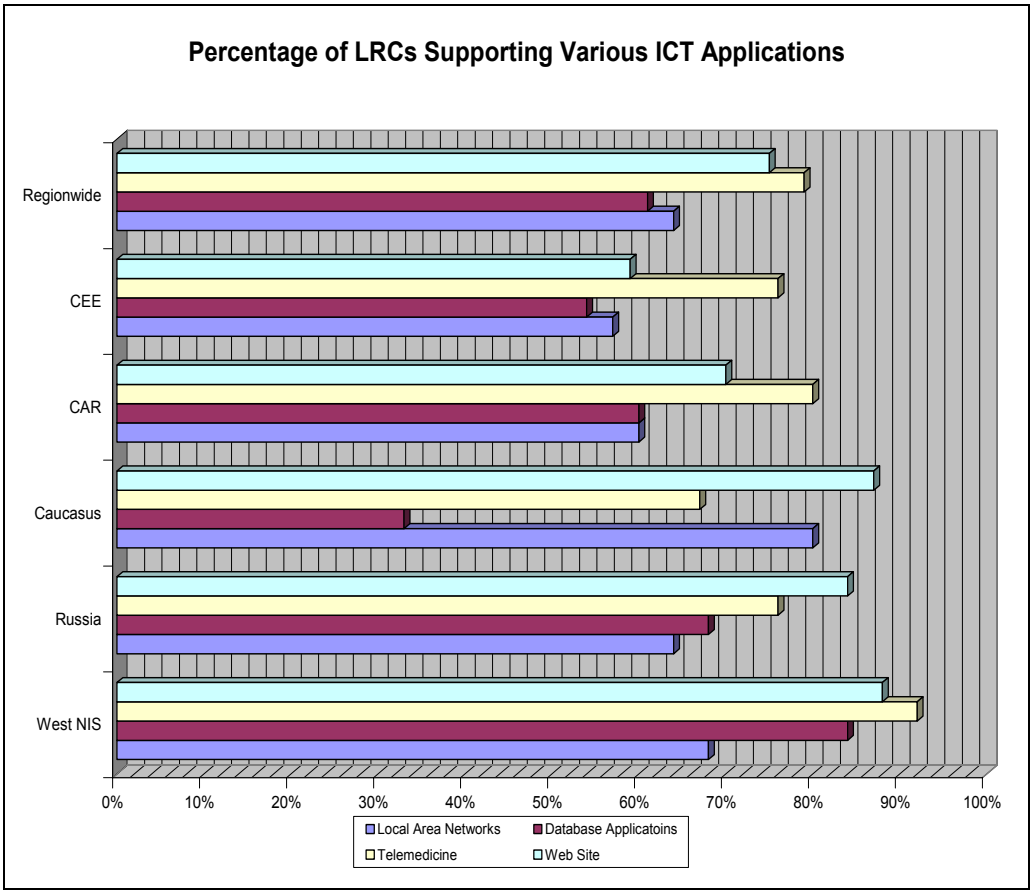
In part as a result of this training, 39 percent of partnership institutions have applied for grants that would specifically support continued access to knowledge resources and other Learning Resource Center functions. (Note that this figure does not include grants that partners may have submitted for other types of projects.) Of these LRCs, 57 percent have been successful, meaning that 22 percent of all active LRCs have had at least one successful grant proposal. These grants vary widely in nature and scope. Some include a one-time provision of equipment, whereas others have been able to support multi-year projects in areas such as telemedicine or information systems development.



Objective 4: Increased development and use of information and communication technology tools and applications.

In addition to providing access to information and promoting the principles of evidence-based practice, the LRCs often have the effect of stimulating or supporting the adoption of other information and communication technologies that can help to improve the quality and efficiency of health care delivery. This includes the development of local area networks (LANs) and databases, which help to improve the ability of staff to share and access information (clinical, educational, financial, and administrative). It also includes the use of e-mail and the Internet to support telemedicine, including consultations related to the diagnosis and treatment of specific patients. Partner institutions have also been encouraged to develop an institutional Web page, which, in addition to improving visibility and access for patients, can serve to promote the overall reputation and prestige of the institution. The adoption of all of these applications can also serve as an added incentive to support the long-term sustainability of the LRC—as the administration sees an increasing value and role for ICT and the Internet.

Since the beginning of the project, 61% of partnership institutions have developed and are using databases to manage administrative and/or health care information; 63% have set up local area networks that enable expanded access to knowledge resources; 80% are using their LRCs for telemedicine purposes, including remote e-mail-based teleconsultations; and 75% have established institutional Web sites. Learning Resource Center staff have received training in all of these areas and played a critical role in these activities at their institutions.


Percentage of LRCs Supporting Various ICT Applications
Regionwide
CEE
CAR
Caucasus
Russia
West NIS
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
Local Area Networks
Database Applicatoins
Telemedicine
Web Site