

## Domain 5. PHLI and the Future Direction of Public Health Leadership Development

This section describes respondents' thoughts concerning the future of leadership development. These thoughts came primarily from the eighteen "key informant" interviews, though the seventeen "graduate" interviewees also reflected briefly on this topic during their interview. Some data for this domain also came from survey respondents who answered one close-ended question ranking options for the future purpose of PHLI, and from comments in the final open-ended question in the survey.

Respondents offered thoughts about a wide variety of topics ranging from how to re-design the National PHLI to lifelong learning, network development, and the roles of graduates as advocates and leaders. Although respondents varied in how they conceptualized the future of leadership development, they maintained a strong consensus that public health leadership development is needed and has value.

### **Summary of Findings - Graduates Suggested:**

- Individual leader development and network development are important synergistic efforts that have helped to create a common public health framework and a fertile ground for diffusion of innovation
- Offer a continuum of cutting edge development opportunities including a national institute as well as continuing education and informal development activities to build a culture of lifelong learning and to sustain vibrant networks
- Consider how to support a more integrated and coordinated system of leadership development at the national and state levels
- Consider strategies to strengthen networks beyond the current methods, including enhanced connections to support succession planning and to facilitate opportunities to work on issues of national importance
- Build in an on-going evaluation system, focusing on both process and outcome measures
- Adequate and on-going funding is needed in order to support innovative programming and to enhance the existing leadership development foundation

## Leadership Development: Visions and Goals

Respondents expressed a broad vision for the future of leadership development, asking that it be “re-engineered” from its current state into something more “contemporary” and “cutting edge.” They requested a program that has an eye toward emerging national health issues, looks toward the future, and offers the latest thinking. Some also asked for a program that reflects the global, diverse, and interwoven nature of public health, that is, a program that gives a “national” or even “worldwide” view of public health leadership, and through that perspective inspires new thinking about the work of leaders. A few suggested a program that creates a national “system improvement” with a broader focus on developing leaders at national, state, and local levels. Many individuals considered leadership development as a multi-level, evolving field that would benefit at this juncture from a more systematic, coordinated approach among the existing programs – such as National PHLI, the State and Regional programs, PHLS, and the internal leadership development program at CDC - and any new leadership activities.

Future leadership development efforts should concentrate on developing and sustaining both leaders and networks, according to most respondents. Influencing national policy, practices and developing leaders who will in turn develop others – to ensure an adequate cadre of leaders in the future - were also named. Each is described below, with further elaboration later.

Respondents described leader development in related ways, saying that we should “identify,” “enhance,” and “develop” leaders. As one key informant stated, “I think [PHLI’s] first focus as a development institute would be to focus on the individuals’ capabilities of enhancing or developing their leadership skills.” Others linked individual leader development specifically back to competencies. As one put it:

*Leadership is one of (the core) competencies, one of the eight. And to me, the goal should be for someone, when they finish ...that they will be competent in the leadership competency.*

Respondents recognized the importance of collegial relationships, and developing and maintaining networks were goals named hand-in-hand with developing individual leaders. Some respondents believed that a leadership institute should be charged with facilitating the development of networks, while several specifically discussed the importance of keeping networks connected over time as a way to enhance leadership. One commented:

*What I think needs to be more thought through with the Institute is more how it can affect and how it can be a leader in developing a network. And I don’t think it’s played as much of a role as I think it could... (for) example, connecting the state and regional leadership institutes, connecting the management development programs, identifying individuals who may be the “best and brightest” to move*

*I think (PHLI’s) main goal should be to strengthen the leadership skills of top level public health professionals, and to facilitate the development of public health networks for the purpose of affecting state and national public health policy.*

*up into higher level leadership development...and keep(ing) people networked and connected.*

Many believed that leadership program graduates should use their talents and professional networks as a means to take action and affect public health policy and practices. They felt strongly that the leaders and the networks that emerge from leadership development need to have a purpose and commitment in “strengthening the public health system in the US” and “mak(ing) things happen.” Interviewees described a host of potential ways that graduates could be active, including influencing state and national policy and leveraging resources and connections. One individual stated:

*I think what would be most helpful...is to regularly involve [graduates] in national level policy initiatives ... you have something that really needs to be worked on – managed care, perinatal health, or some area like that - to utilize them in that way.*

Another suggested that National PHLI graduates contribute to the field through mandatory participation in professional organizations such as PHLS, ASTHO, or NACCHO:

*Getting people to join PHLS and using that as a vehicle to create a national network is very important ... I'd like to have people commit up front to participate in a national network of leaders – PHLS or ASTHO or NACCHO – that [they] will contribute to the field.*

Finally, a few respondents specifically thought future workforce development should be a goal for the National PHLI. Noting the projected shortfall of public health workers in the coming years, they described this goal as a “succession planning piece.” One key informant explained:

*I definitely think the future National Public Health Leadership Institute needs to be one of the many solutions for succession planning in our public health governmental organizations. They need so much help ... leaders should be developed in not only why [succession planning] is important, but how to do it – tools for doing it.*

Another commented, “[A PHLI goal should be to] develop a cadre of ongoing public health leaders to replenish a pipeline that is constantly being drained.”

Survey respondents were not asked to comment on future program goals, but they provided additional insight by answering a single closed-ended question about the purpose of PHLI (Table 7). As Table 7 shows, survey data are consistent with interview data in supporting individual leader and network development as key priorities, and shed some additional light on target audience in particular, which is discussed below. Particular results we notice in Table 7 are the following:

- When forced to make a choice, respondents tended to choose developing and forming networks among “emerging” leaders – which we defined as “less experienced, high potential” – more highly than developing and forming networks among “senior” leaders – which we defined as experienced and in senior positions. This result is somewhat artificial, because some interviewees explained the value of having both senior and more emerging leaders together in the program. But it does point out that many graduates believe that the program should serve high potential leaders with less experience as well as those who have been in senior positions for some time and are very well established.
- “Developing networks” was nearly as important in rank as developing individual leaders – whether among emerging or established leaders. This might be interpreted to mean that programs of the future should consider it a very strong priority to build strong relationships among their scholars, between their scholars and alumni networks, and perhaps between scholars, alumni, and public health agency and association leaders.
- While “to teach leaders how their agencies can develop other leaders (e.g. through programs, mentoring, networks)” was only in the top two for 27% of respondents, it was in the top four for 69% of respondents, on a par with the numbers for developing senior leaders and networks of senior leaders. In other words, this possible goal was very important to many respondents. This is in line with the interviewees’ emphasis on ensuring that a robust leadership pipeline is in place.
- Only 41% had “to develop solutions to problems through action learning teams” as one of their top four PHLI purposes. This does not mean that this potential purpose is not important, but rather that most participants believed it was less important as a *primary* purpose of leadership development. Many interviewees, as we shall see, stated that the leaders of public health associations and networks at the national, as well as those who organize leadership development programs nationally and regionally, should themselves collaborate to enroll the individual leaders and networks in efforts to improve public health programs and systems.

### **Promoting Leadership Development**

Discussions mainly focused on two types of national leadership development; a formal system similar to the existing PHLI model and a system for on-going leadership development. There are some important differences between existing national leadership programming and what is envisioned for the future; for example, some interviewees suggested that new programming be guided by a “central hub” to help coordinate various leadership development efforts. Secondly, they consistently asked for expanded opportunities for “lifelong learning,” explaining that as leaders, they need periodic refreshers beyond what is currently offered by PHLI or PHLS to stay current in the field. This section describes ideas for formal leadership development, lifelong learning, and thoughts about the relationship between national and state/regional development.

Table 7. Ranked responses to the survey question: What should be the main purpose of PHLI?

Possible Purpose of PHLI	First choice (%) (N = 374)	Second choice (%) (N = 378)	Third choice (%) (N = 365)	Fourth choice (%) (N = 368)	Rank and percentage of leaders who chose the option as one of their top two choices	Rank and percentage of leaders who chose the option as one of their top four choices
To develop the capabilities of individual *emerging* leaders (less experienced, high potential).	30	23	15	13	1 (53%)	1 (81%)
To develop a national network of *emerging* leaders who can share knowledge and collaborate on national priorities.	18	20	19	19	2 (38%)	2 (76%)
To develop the capabilities of individual *senior* leaders (experienced and in senior positions).	21	16	14	13	3 (37%)	5 (64%)
To develop a national network of *senior* leaders who can share knowledge and collaborate on national priorities.	15	18	15	22	4 (33%)	3 (70%)
To teach leaders how their agencies can develop other leaders (e.g. through programs, mentoring, networks)	11	16	24	18	5 (27%)	4 (69%)
To develop solutions to problems through action learning teams	5	7	13	16	6 (12%)	6 (41%)
Total (%)	100	100	100	100		

## Respondents' Recommendations for the Future of a National PHLI

This section describes suggestions for a future national-level public health leadership development program that would be similar in nature to the current PHLI model. A later section describes other kinds of continuing education programs that interviewees recommended.

For the major National PHLI, we discuss respondents' suggestions for program components including target audience, class size, curriculum, learning methods, and certification.

### Who should be Developed?

Respondents offered somewhat divergent visions for whom should attend a future national leadership institute, and offered suggestions according to multiple criteria including an individual's level in the organization, work sector, and personal attributes. They were split on whether the Institute should target senior level leaders or emerging leaders. Many believed the Institute should focus on governmental public health leaders, but include other non-governmental parties as well such as healthcare and advocacy organizations. Some suggested focusing on "potential" as a criterion for attendance rather than an individual's position level or sector. These criteria are described in more detail below.

#### *Level in the Organization*

Quantitative data from survey respondents (Table 7) suggest respondents' thoughts are somewhat divergent regarding whom the institute should develop, with a greater percentage ranking the development of emerging leaders (53%) rather than senior leaders (33%) in their top two choices of the purpose of PHLI. Many interviewees said senior-level public health professionals such as state health officers or major city/county health officers should attend an institute, however, a few who made this suggestion also noted that focusing on this type of scholar is problematic. Senior-level professionals tend to have a short employment tenure, often because they are political appointees with only 2-3 year stints. Burnout and retirement were also named as reasons why the investment in development senior leaders is not entirely judicious. One individual commented:

*I think [PHLI] probably should target local directors of health...the state health department directors are only in 18 months. So where do they go, I don't know. At least the locals are more stable, you get 10, 15, 20 years out of local health department directors.*

Others suggested "new senior leaders," those "on the rung right below top leadership," and emerging leaders as target audiences. One person said, "It is important to focus on 'new' emerging leaders given the graying of the workforce and the diversity of the workforce. It is important to have leaders recognized from within and supported to move

up the ranks.” Others recognized the desire for professional growth among emerging leaders as a rationale for focusing efforts toward them, saying

*There’s a hunger there, and an openness to leadership skills; and they also have that length of future in front of them to be able to apply what they learned so that the PHLI experience really does have time to gain some fruition.*

Those who did not support recruiting emerging leaders thought they “weren’t ready”, or because they believe regional institutes are a more appropriate environment for development emerging leaders. One individual commented, “I see PHLI as ...a primary vehicle for providing development to senior leaders. Emerging leaders should not be turned away, but the state/regional PHLIs have the capacity to address emerging leader needs.” Finally, some advocated for a combination of senior and emerging leaders, saying senior leaders “lend credibility” while emerging leaders “are the future of public health.”

## **Sector**

Several interviewees suggested that a future institute primarily should develop governmental public health leaders but also consider enrolling a limited number of scholars from outside government. One explained:

*I don’t think we should lose the focus on the fact that we’re dealing with a governmental public health system, and that’s the reason [PHLI] started...there haven’t been very many [development] opportunities...we want to have some cross-fertilization, but it shouldn’t lose sight of the fact that this is about developing public health leaders...this isn’t about being exclusive, it’s about making sure that you’re true to your mission.*

Respondents suggested academicians, non-governmental leaders, private sector leaders involved in public health and health care, and elected officials as some potential others to include.

## **Professional Attributes**

When discussing attributes of scholars to enroll, respondents named “potential” most frequently as a criterion for acceptance into a national leadership program, often in conjunction with other characteristics. For example:

*Accommodate those who are way out in front, and stretch them because they’re leading the transformation.*

*It should be high potential senior people...the folks that really, if they could get a burst of leadership development and networking, and they got it on their resume and they got better known, that they would end up with more skills, and feel validated....[and] step up to top leadership positions and be change agents.*

Another individual commented:

*On emerging [leaders], look for the potential for individuals, maybe not position-wise, as in an organization, but be able to become statewide or national leaders...within the practice.*

Others suggested that scholars should have decision-making, supervisory, programming, or fiscal responsibility, or more generally, “people with long-term experience in public health who are on the cutting edge of where it needs to go.”

Beyond these criteria, respondents also consistently expressed a desire for a diverse cohort, but conceived of diversity differently. The most common desire was having a cross-disciplinary body of scholars, from within and outside of government; other requests included working with scholars from all three levels of governmental public health (i.e., local, state, federal), organizational diversity, age diversity, racial/ethnic diversity, and geographical diversity – by the states represented, by a mix of urban and rural communities, and by inviting international scholars. One survey participant summed it up by saying, “Develop change agents from diverse backgrounds working across disciplines to improve health.”

### **Model, Class Size and Program Length**

Strong opinions were expressed by respondents when reflecting on past versions of PHLI and whether scholars should enter the leadership institute as “individual” or in “teams”, yet only a few respondents expressed an opinion for the future of a national PHLI. No clear consensus emerged among the few individuals who specifically volunteered an opinion, but the arguments followed clear lines. Respondents believed that individual participants are more likely to network with other scholars and to candidly discuss personal leadership issues, since no one else they know well is in the room. However, a few believed that teams are more likely to produce a measurable output. One individual said:

*When you have a room full of senior executives, and staff people are not present, there's going to be a greater likelihood that they're going to feel comfortable and free to really discuss things that are challenging to them or questions that they have ... in a way that you can't do when you have your subordinates or staff there in the room ... because you're the boss and when you say something, it is so... it's not up for debate and you can't engage in that kind of challenging discussion and testing your own knowledge base and decision making when you're there with staff.*

*There are pros and cons to most things, and this is the case here. The advantage of teams is you pull a group of people together and they focus on a project...it's a proven (training) approach...(with) an output...the downsides are that teams tend to cluster amongst themselves...that diminishes interaction...(and) after they leave the program...they are less inclined to participate in national alumni activities.*

On the other hand, another said:

*I think if you could do it as a group, it would be great. I think it takes more money. And it is harder to pull off, as well...I think you reach a certain effectiveness, and you can demonstrate it when they get home, you can demonstrate things more clearly. They are able to more easily make change by virtue of numbers.*

One participant noted less geographical diversity when scholars come as teams, saying “[teams] dilute the geographical abundance.” Others thought the team concept “watered down” the curricular content to the “lowest common denominator” and believed that the individual model allowed more time to study and greater opportunity for “deep reflection.”

Among those who supported the team concept, purposively pairing senior and emerging leaders or asking senior leaders to choose a junior leader from their organization or an affiliate (not a direct report) was suggested as a means to promote sustainable leadership. Another suggestion was to target PHLI toward individuals and the regional institutes toward teams, or to use different models for different audiences. For example, one could use an individual model for senior leaders who know public health content but who need to assess and develop their leadership skills, and a team model for new leaders who may not have a strong foundation in public health and who may need to consult with team members with more public health expertise. In the interviewees, there was no support for a *teams-only* model at the national level, but a few interviewees were open to enrolling both teams and individuals.

When envisioning class size, tension exists between the desire to maintain intimacy and promote networking opportunities among scholars, on the one hand, and the recognized need for diffuse development efforts, on the other. As one participant said:

*It is unfortunate that we can't develop more [people]. I think the original PHLI was to target state and local health department directors and in the first nine years they didn't come close to [developing] the 3,000 [directors]. We only got about 10% of them developed.*

Another commented:

*I'd say [develop] 40-50 [people]. I think much bigger than that and it becomes very difficult to really get to know people well. A large part of the value of this class in knowing people very well who come from diverse, but at the same time, common backgrounds.*

A survey participant thought shifting efforts by reducing the number of attendees and recruiting more intensively would be valuable to reach a more diverse group of leaders. Although interviewees recognized a need for more diffusion of development, they all suggested developing between twenty and eighty scholars per class, with forty to sixty

being most common. Those who suggested seventy to eighty qualified that number by saying there could be “different tracks” or “two groups of 40” to accommodate a larger group. Class size for the previous programming was 50 scholars, and interviewees seemed comfortable making a similar recommendation for the future. Ideas for how to address the need for development are discussed in more detail later in this report.

A few survey respondents suggested having two programs, one on each coast, to offset the time and expense for individuals who travel long distances to attend the national institute.

A few respondents also recommended building in an alumni component, to help meet needs for updated development among graduates, and as a secondary goal, to build and sustain on-going political support for development efforts. One participant suggested an annual one to two day alumni program, saying it “could be one day during the week-long institute where alumni return” to learn new concepts “at a reasonable price.”

Finally, although not specifically asked, a limited number of respondents suggested retaining a year-long program. As one participant said, “I do think that the retreat time, and the year-long development time is an excellent model.” However, another participant commented:

*I would have preferred monthly [or] quarterly face-to-face, multiple day events. I think the more face-to-face time we have, also allows us to build stronger relationships with scholars from other states.*

## **Curriculum**

Some respondents gave broad recommendations for the curriculum, while others offered more specific ideas. Broadly, many respondents suggested that the curriculum should teach leadership skills, include dialogue about issues that have national impact, offer a variety of viewpoints, and use examples that are relevant to many. Respondents also noted that development should draw from the fields of organizational development, public administration, and political science.

One participant said:

*[We should learn] big things like identifying the critical issues in the field of public health ... and move them forward, support them, know about them, invent the next round of changes in the field of public health.*

Another commented:

*There needs to be a look at the curriculum to bring more variety of viewpoints into the development than strictly public health.*

*(The curriculum should) be tied to public health priorities – for example, core functions, Healthy People...it makes public health real.*

Others suggested addressing the five core and seven cross-cutting competencies in public health, as have been developed by public health systems scholars.

Some respondents identified specific areas for study; one named “communications development, systems development, and organizational development” in particular. Another suggested “how to use data, how to do financial, how to do strategic planning.” Yet another suggested incorporating instruction about performance measures and objectives, saying that it’s important to know “how to use data before you get to the end [of an evaluation period]” in order to understand along the way if the project is on track. Additional suggestions included “politics” “policy development” and “skills to

manage transitional leadership.”

Respondents discussed the merits of having the same development program offered to each cohort versus having a more versatile curriculum with choices. Some respondents suggested offering a core curriculum supplemented by an “optional diverse program” as a means to meet scholars’ varied curriculum interests and their desire to develop self-identified areas for improvement, noting “one size doesn’t fit all.” This respondent stated:

*What starts hitting my mind is how much money is available to design the program and to deliver it, because that puts parameters around what you can do and what you can’t do. But if there were the opportunity to have all senior level public health professionals in one program, I would think that we would need to offer a diverse [program] ... a basic program for everyone, first of all, especially on leadership development skills. And then offer an optional diverse program that allows the public health professional to further develop skills that are identified that they need to develop. As an example, I think it’s terribly important for a public health professional at a senior level to be articulate, well spoken, have the skills to address the public, address the legislature, create an expressive vision that they have. But some individuals have gotten to a senior level and do not have that skill and need to work very hard on it ... you might have a heavy focus for some individuals on speaking, engaging people, learning how to listen and converse more effectively, and so forth. And then another group might have a different field that they need to develop more fully, and so we could specialize that way.*

One interviewee expanded on the general concept of teaching leadership skills and outlined three critical program components: networking, self-assessment, and instructional content. At the same time, this individual addressed the idea of offering a tailored curriculum or optional diverse program, saying,

*I think there’s some core curriculum kind of thing. And I think then that the networking piece is really crucial ... If you can do ... three things, the self-assessment piece, some kind of content, and some kind of networking time, then*

*there can be other things that one could delve in, more specialty kind of things, whether it be communications or crisis leader[ship], whatever your current sthick is, and a bit more of a customized approach ... It's much less resource intensive to just do the same thing for everybody. So you need more resources if you're gonna try to customize things.*

Respondents were specifically asked if they thought the curriculum should link to national public health priorities. While respondents in general thought it was important to be familiar with public health priorities and their sources, they were less enthusiastic about incorporating them into the curriculum, maintaining that the institute was about developing general leadership skills rather than specific knowledge or skills around issues.

*(The curriculum should address)...how do you not only manage change, but create change in a positive direction to enhance the health of the community – encouraging people to think about that.*

In support some said, “If it’s a national public health priority, it should be dealt with in the program,” elaborating that the curriculum should tie in with Healthy People 2010 objectives, CDC goals, and/or Institute of Medicine reports, and that a national program “should make sure people know about those [reports].” Another noted:

*Dealing with emerging national issues and international issues is really important. It helps us see what is emerging before we know about it, it helps us see a connection to the world. It's important for us to push the unknown.*

*We need to constantly review the curriculum of these programs so they're relevant to the changing nature of public health.*

Several respondents suggested it would be appropriate to use cutting-edge topics as applied case studies to discuss leadership principles and “state of the art” practices, particularly if “someone is willing to fund [development of] a case study on x priority.”

A greater number of respondents, however, did not think the institute should be about specific issues, saying that “leadership skills are more generic” and noting that “you risk going topical in nature.” One emphasized:

*I don't think the institute should be about an issue, I think it should be about public health practice – not [pandemic influenza], not bioterrorism, not chronic disease. It should be about the tools and the equipping of people to do public health.*

## **Learning Methods**

There was limited discussion about learning methods. A combination of on-site learning and distance learning was suggested by one participant. Another suggested action

learning through teams. Peer coaching and executive coaching, both during the program and post-graduation, were also mentioned.

Most discussion revolved around team projects, with suggestions about their focus and scope. One participant thought an applied project is good, but cautioned it “can’t consume our life because we have everyday work responsibilities.” A few discussed how the project could be focused, with one suggesting it focus on public health priorities, and a few suggesting that the project link to a “particular outcome.”

One person elaborated:

*For example, maybe this year the emphasis is on two areas of national CDC [priorities] or national goals – preparedness and X, and the teams are asked to do something about these two issues, and present their results to CDC deputy directors and official high level people about their solutions to big national issues.*

This person also suggested bringing in the business sector or multiple sectors with a common interest in the issue, naming several advantages to this approach including: the development of networks and individuals through problem solving, the opportunity to exercise influence over an area “where you have no direct authority”, better preparation for ambiguous authority, and experience for operating in a network.

In contrast however, several respondents said not to “focus too much on the product,” saying people already experience this in their daily accountability environments, and asking instead for “time to think” in an academic, rigorous, but not product-driven environment.

## **Program Credentialing and Scholar Certification**

Previous National PHLI’s in California and North Carolina have not offered academic credit or other credentials, such as certificates. Several respondents suggested working on these issues, saying that offering a certificate from an accredited university and department would “make it meaningful.” Some elaborated, saying a recognized certificate would “make the program more appealing to potential applicants”, “serve as an incentive for lifelong learning”, “give more weight to being a graduate” and help with evaluation by creating curriculum standards. One person suggested offering credit toward a master of public health degree.

Finally, one person suggested evaluating scholars. This person went on to say that grading could be done pass/fail, and include an exit interview conducted by faculty at the end of the development

*How do we create incentives for folks...learning from each other...making sure they're really up to date... I even dreamed of some kind of PHL certificate program. I don't know if we'll get there. Things to encourage people, to give them some points for an MPH... How do you encourage people to continue lifelong learning?*

year, where an “honest assessment of leadership potential” is offered.

## **Continuing Education Opportunities and Informal Leadership Development**

Having discussed respondents’ ideas for the future of the main National PHLI program, this section describes respondents’ thoughts on lifelong leadership learning. These on-going activities would serve as a complement or supplement to the national development institute by providing short-term opportunities for graduates to refresh their knowledge and skills, and by expanding opportunities to a wider audience that could include professionals who did not attend a national program.

### **Vision**

Respondents were highly interested in on-going educational opportunities, expressing a desire to “refresh knowledge” “gain new skills” and “be with others who want to learn.” Many saw value in reconnecting with other leaders. Some noted that offering on-going educational opportunities would help keep leaders invested and connected to the national program, in essence creating “lifelong fans.” Time constraints appeared to be the greatest barrier to participating in continuing education.

Interviewees desired progressive courses and a diverse menu of course offerings. One individual suggested, “Build a series of career opportunities for people in public health. Build a curriculum that takes someone from their first management job in public health to their senior-most opportunity.” Another noted that coordination between national and state/regional institutes would be valuable to create a development program that makes “academic sense over your career.”

### **Target Audience**

While opportunities for lifelong learning was a consistent theme, there was some ambiguity with respect to whom should be served and how. For example, some interviewees requested programs for alumni, while others suggested a more inclusive approach by opening opportunities to those who couldn’t attend a national development program. Others did not specifically denote a target audience.

One key informant believed that offering shorter continuing education courses could help create more interest in “change” back at National PHLI graduates’ organizations, and better facilitate implementation of the new ideas being taught by helping to diffuse a common framework around approaches to public health:

*It’s like throwing seed on hard soil, you know, it’s gotta have the right environment in which [new ideas] can thrive, or else it...you know you can drift back to norm too easily, or become frustrated too easily ...how do you get, at least within your organization, other people on [the same page]? Now you can*

*show them and you can lead by example, and you can try and move your organization, but it is so much easier to do it if you've also got some key people in, or people in some key positions within your organization, that have had an opportunity to get at least a taste of the kind of thought-changing work that can occur through the PHLI experience, themselves. And so little, perhaps more-focused, obviously, because I think they would be shorter experiences. I'm not at all proposing a 12-month or 24-month experience for those management administrator level positions that I could see really benefiting from this – those emerging leaders, so to speak. And some of them may even be career people, who may not ever reach the absolute senior level, but really would be very encouraged and gratified and would have an awakening, so to speak, in the middle of their careers. And have their careers and their minds recharged also by being able to think about things a little bit differently, have their own ah-ha moments, so to speak, by having a PHLI opportunity.*

## **Model**

Various ideas emerged for how to offer ongoing development opportunities, ranging from formal residential short courses and self-paced electronic-based instruction, to less formal opportunities such as reading lists and book clubs. Making development available to meet different learning styles and time constraints was a common theme. Respondents suggested distance learning, short courses, teleconferences, conference calls, web-casts and pod-casts.

### ***Formal Development/Continuing Education Courses***

Short programs or retreats, ranging from 2-4 days, were most preferred, perhaps on a quarterly or semi-annual basis. “Top notch” faculty, a “nice setting”, and “help with the costs” were requested. Others suggested coordinating continuing education opportunities with large meetings, such as APHA or ASTHO/NACCHO.

Some expressed a preference for scheduled rather than self-paced development saying, “The learners that I’ve been familiar with so far, who are probably 40 [years old]...all need to have a scheduled time to be there, on their calendar, where they can’t make the excuse to actually go and do that...get it done. They don’t log on to a webpage, they just don’t do it.” Likewise, another participant said, “I’m personally interested in in-person, ongoing courses and a network too, but I’m not interested in phone calls, teleconferences. Frankly, I don’t learn that way. I don’t learn in front of the computer and my schedule doesn’t allow it.”

One key informant noted:

*As we continue in our careers it gets harder to get away sometimes ... if the program is that compelling and it gives you that needed shot in the arm, and plus*

*you're with people who are having a similar kind of desire to learn, it becomes very worthwhile ... I'd be willing to spend money if it helped me get through the kinds of crises I have to face, but I gotta do it short term, I can't do a full week, or I can't do the three week kind of thing.*

Respondents requested continuing education credit, noting that state and regional institutes have been able to provide it. Said one participant, “[Scholars] need a carrot other than a desire to learn ... it’s a way to encourage attendance for ongoing activities.”

Beyond formal courses, another idea that emerged was arranging short-term professional fellowships or internships at policy-making organizations or in a different level of government to increase collaboration and cross-sector or cross-level understanding.

### ***Informal Activities***

Interviewees and survey respondents suggested that informal activities would be valuable both for professional growth and for maintaining alumni connections with the PHLI program. They also cited networking benefits stemming from learning with other scholars.

These individuals proposed several ideas. “Book reviews, things to read, new concepts, tools to do one’s job” was suggested by one participant. Annual or bi-annual issues sessions, leadership series, or special topics series were requested by numerous respondents. Several specifically noted the value of the PHLS book club. Others suggested sending out an annual reading list to alumni, and sharing cases and documents from the current national development cohort. Another suggestion was a newsletter with useful information for managers, with “tidbits” of lessons learned, in contrast to a newsletter reporting “what’s going on” and events.

Web-casts, listservs, teleconferences or on-site meetings were all mentioned as possible modes for communication for such series, as was coordinating with highly attended conferences and meetings. PHLS was named as a possible coordinating center. Although not specifically asked, a few respondents volunteered that they would be willing to pay a fee for these opportunities.

While most respondents expressed interest in activities following graduation from a leadership development program, a few noted barriers, with one saying, “It’s hard to get people involved”, and another noting that “people are really busy.” Funding was also mentioned as a potential issue. One participant summed it up by saying:

*People are excited and engaged, but everything else in the world pulls at them...If there are ways that you can link ongoing learning in something that isn't cumbersome, that provides opportunity for people so they can make time, it's convenient, maybe associated with highly-attended meetings, or doing it over the web. Something that would, on a long-term basis, provide a learning opportunity.*

## The Relationship between State/Regional Institutes and the National Institute

Respondents were asked to discuss how they envision the relationship between national leadership development and state or regional development.

### Vision

Many requested a more systematic model of collaboration between state/regional institutes and the national institute. Several thought that the institutes should be more “complementary”, mutually “enhancing”, and “coordinated.” Similarly, others suggested having a good partnership and sharing information such as curricula among institutes, with one person noting a formal link is not necessary. One individual captured the desire to formally conceptualize state and regional institutes as part of a larger system in this way:

*It would be nice to really rationalize the whole system, and have [it] clearly thought out. It hasn't been. It has moved in that direction, but we never had enough money to develop fully in that way. Everyone wanted it to be developed. We had to be opportunistic [in starting up state/regional institutes].*

Several key informants suggested that more consistency and more networking would strengthen the state and regional development institutes. One person suggested regular meetings, saying:

*I think that there should be a ... better relationship between all of the state and regional PHLI's on the national level. And by that I mean, they should all sit down together on a regular basis and say, “Ok, this year we're gonna work on coming together, on a common ground, for whatever purpose.” It could be for the purpose of making sure that the state and regional programs exist, making sure that they have the right kind of faculty and support, making sure that the state and regional people have access to the programs, making sure that there's a diversity of race within the programs, which is barely even looked at, at this point in time.*

Another individual expressed hope that local institutes participate in the public health leadership development network, but noting that “I know that the network of leadership institutes has really struggled” and attributing this to a lack of funding.

### Purpose

State/regional institutes, viewed as being “more sensitive to local culture,” are recognized as serving scholars who address common issues based on geography as well as shared responsibilities. One person commented, “The national program will give you a national perspective – it will be different from the local perspective.” Another respondent recognized a need for distinction between the models:

*I think we really need to distinguish the model for the national [institute] and its purpose from the state and regional [institutes], so that we can justify a national.*

State and regional institutes were seen as having an important role in supporting vast development needs, helping to meet leadership competencies, and in garnering ongoing program support. One participant said:

*There's no way that the national program can develop everybody. The local programs become an extension of that, and they ought to be just as good as the national program ... if you want this program to have a life of its own, and people chatting it up and talking about it, it's got to be viewed as something good for the masses.*

While respondents recognized and endorsed the importance of state and regional institutes, there were varied opinions about the quality of these institutes. A few expressed concerns about their quality and effectiveness, while others said they were comparable or even better than the national institute.

## **Target Audience**

Many respondents suggested that the state/regional institutes serve “interdisciplinary emerging leaders” who are normally less senior than scholars attending the national institute. Respondents emphasized the importance of having a diverse audience, and specifically requested geographic, level of government, and racial/ethnic diversity.

There was a lack of consensus in terms of whether state and regional institutes should feed into a national program. Some respondents believed that local institutes would “ideally feed into [the national program]” because “it could strengthen the applicant pool at state and regional institutes” and would also support what one called “ecological leadership.” However, a greater number thought that it wasn’t necessary to go to a local institute prior to attending a national institute.

## **Curriculum**

Respondents offered thoughts about state/regional curricula, recognizing that these institutes reflect local culture and the curriculum should be tailored accordingly. One participant commented:

*Number one, regional institutes are more sensitive to the culture of the area that they're serving. And so regional institutes can have case studies, can have experience examples that will feel more common to the people who attend them. And so while you're stretching and creating a learning atmosphere around the skill-building, and you're stretching the thinking around those things, there's a*

*certain kind of comfort knowledge that has to do with if I'm in the Southeast and I start dealing with hurricanes, I get it real quick. But if I'm in earthquake country, and the example's a hurricane, I can't get my head around that and handle it.*

Others talked about curriculum in relationship to the national institute, saying, “Don’t teach conflicting material, but maybe at a different level teach something at the national institute and something at a more introductory level at the state and regional.” Another suggestion was to share best practices from the national program at the regionals. However, others thought state/regional curricula did not need to be influenced by national curriculum; one individual cautioned against a “top down” approach, saying it could “take away the creativity.” Some suggested sharing curriculum between state/regional institutes and perhaps creating a common core, but at the same time noting “they’re all very customized, unique institutes, they’ve got good faculty, and they can develop their own curriculum.”

There was limited discussion about how to integrate the two levels of institutes; some suggested that national scholars or alumni serve as faculty, coaches, and mentors at the state/regional institutes. Others suggested having alumni of the national institute participate in planning or facilitating regional institutes.

Finally, key informants were supportive of sending staff to state and regional institutes, saying it was helpful for subordinates to “shake things up and get out of [their] boxes.” Other benefits, such as “exposure to ideas you don’t get in managerial programs,” and “real opportunity” for staff at lower levels were also named. Diffusion of ideas and best practices was another benefit of local development, with one person saying, “I think it would really seed the change in innovation process.” However, a few individuals noted that cost may be an issue for some regions that may not have a local institute close by.

### **Network Development, Maintenance, and Activities**

Network development and maintenance were named as primary national program goals alongside leadership development. This section describes ideas to promote this goal. It also presents a related discussion from the interviews about how a strong network can function, and discusses network outcomes such as advocacy efforts and creating practice guidelines and policy.

Many interviewees asked for stronger and more integrated efforts to build and maintain leadership networks in the future. Many recognized the power of their leadership development experience in initially forming networks, but some acknowledged that sustaining the networks over time was challenging.

Lifelong learning, described in the previous section, was offered as one idea to build and sustain a vital network. But respondents also offered additional thoughts on ways to make this happen.

For one, respondents requested a mechanism to stay connected with alumni and with the program, suggesting as examples a “national list of graduates,” an “annual list of new projects” or “updates on past projects.” One survey participant noted, “It’s very difficult to stay in touch without having an up-to-date contact list.” Others suggested developing a listserv or an on-demand searchable database of contact information and specialty fields in order to stay connected, enhance recruiting efforts for open positions, and mobilize a broad, diverse network for action. One key informant said:

*On a regular basis, PHLI should send out to each of its graduates an update-your-contact-information form...electronically. And immediately identify those that they don’t hear back from, and then go to a second method of trying to pull them back in...it’s beneficial to do that, not only from the perspective of to know how to help evaluate the program, but also...to keep your networks going, developing new networks of professionals around topic areas, pulling together professionals to go testify at the national level.*

Several people also mentioned the value of social activities, and suggested that social events continue to be coordinated with major meetings.

## **Coordination**

Respondents suggested that PHLS could enhance network development, saying it was an “excellent model” and a group that “provides some forum for exchange.” One participant elaborated, saying:

*The Public Health Leadership Society should be the mechanism for keeping folks networked and keeping them engaged in a “policy way.”*

Some respondents, however, expressed a general need for a greater connection between PHLS and national leadership development efforts. Some suggested that graduates should be required to join PHLS. Others went further, saying greater coordination or connection with PHLS is important for bringing about collective network action:

*You must find ways to continue to network, basically, that there are some opportunities for that. I think the Leadership Society is one way, but surely not the only way. We’ve got less than 200 members of all the people who have gone. It ends up being a select group, but among that group it provides some forum for exchange. We do a book club and leadership series on some timely topics. It is a way to have some ongoing learning for folks. We have a learning program at APHA. That is about all we have had money to do. This year it will revolve around quality improvement. Last year it was on accreditation, workforce development - some of the key issues.*

Others identified a gap in the leadership network and a need for a “main node.” One said:

*How [do] you keep ‘em networked in an issues-oriented kind of way?... If we’re going to move forward, as an example, on pan flu preparedness this year, there’s a set of leadership issues that have to be engaged in order for us to be more standardized in our approach I guess. And no one really networks the leaders together to talk about that, they network their programs together, but at this time we don’t really network the leaders together ... ASTHO and NACCHO do little bits of this, but nothing that’s really a kind of a leadership strategy. And I know this kind of gets out of the realm of leadership development, and I think that’s kind of where, maybe academic institutions have a little bit of a problem in figuring out what’s their role in continuing academic development and leadership development, versus networking, issues-oriented networking and that kind of thing... in the network jargon, there needs to be a main node, you know? And there isn’t that right now. And I would I guess like to see whoever plays the national leadership institute role maybe play that node, you know. If it’s resourced and all those things ... basically what I’m talking about, [is] how you create mass collaboration.*

Some respondents offered thoughts about how to coordinate network activities. Virtual networks were suggested, with email, discussion boards, teleconferences, a website or wikis as mechanisms for sharing thoughts, information, and working documents.

## **Network Activities**

Some respondents spoke passionately about the potential influence of a leadership network, and proposed that graduates of a leadership development program “use ourselves effectively at the national level” to influence policy, advocate for funding, and work on current and emerging health problems. At the same time, they also noted that graduates need a “reason to gather,” and that rallying around issues is an effective way to promote network development and maintenance. Respondents acknowledged that a larger budget would enhance the feasibility of this idea. A second key theme emerged during discussion of networks; the network as a mechanism to diffuse ideas to people and organizations who would otherwise not be exposed to these innovations.

## **Network as Think Tank**

Described as a “think tank,” network activities could be the “brain trust of forward thinking” and lead to white papers and testimony at congressional hearings, for example. One individual said:

*Those bigger issues, crises or whatever, then the think tank should come together and try to present a consensus type of white paper... to affect the policies or practice in some meaningful way... I think [PHLI] should move into some networking thing that begins to change policy, the landscape, the direction; it*

*should affect legislation, I think it should move in that kind of direction, in a more deliberate way.*

Others commented:

*I can see that, as we have important public health issues that need to be debated at a national level, a group of PHLI graduates that are all interested in working on that topic, could convene themselves, or be convened...participate in some discussion and maybe even some white papers or whatever on a topic, a presentation together at a Congressional hearing, that type of thing.*

*When we have a special project to do we [could] tap into these alums from all across the country. If you weren't interacting with each other, you wouldn't know who they are. For instance, our national network of public health, we have done accreditation, now we are doing one on quality improvement. Several folks worked part time for national experts that we have identified. I think it is a great way to do business. You don't have to do it all internally.*

### ***The Network as a Mechanism to Diffuse Ideas***

A few respondents believe that the network has the responsibility to aid local health departments “that may not have the sophisticated capacity or infrastructure to stay ahead.” One alumnus spoke earlier in the report about the difficulty in implementing new ideas in the absence of an environment open to change and colleagues open to innovation.

Another asked that the institute make special efforts to help “translate that transformation, those cutting edge pieces, to the pieces back here [i.e., local health departments] that are dragging, and may not have the sophisticated capacity or infrastructure to stay ahead.”

(Scholars) cannot work on something very innovative and yet come back to a work place that stifles that kind of creativity and innovation... maybe the opportunity for the future, is that...the institute ...has to assure that the system is moving forward in some sort of cohesive, transformative way.

A survey participant noted:

*Good ideas like prevention and increased participatory processes may be rare because they are not preceded by the culture change needed to help them realize their full potential. PHLI could devote itself to identifying and promoting the culture change that is required for more participatory processes to become commonplace in the public health leadership toolbox.*

While respondents repeatedly recognized the difficulties of working in environments that are resistant to change, most did not offer any concrete ideas in terms of how to affect this issue. One participant suggested including “draggers” in the national institute as a means to promote cohesiveness, but did not propose any specific ideas for how to do so.

## System Coordination

Throughout their interviews, respondents suggested having a more coordinated or connected system with central leadership to help facilitate a broader spectrum of leadership development efforts, to help disseminate information to alumni of PHLI, to sustain a vibrant alumni network, and to help mobilize and capitalize on the potential influence of a leadership network.

Several individuals suggested linking the “whole leadership institute network, including state and regional” institutes. One survey participant noted, “The future of PHLI needs to be tied to a larger collaborative strategy for leadership development across the public health system.” Another individual thought it would be beneficial to link various national leader development institutes, such as PHLI and the development institute for state health officers at Harvard. To accomplish greater system-wide coordination, one person suggested setting up a “council on linkages”, with representatives from agencies such as the CDC and HRSA.

One individual discussed setting clear expectations, noting:

*I think leadership is a lifelong experience. And one institute is not going to solve all those issues. And it really can't, because ... we need to be clearer about what the role is of a particular institute in that the whole lifelong learning perspective that we want to take.... Starting with the model that we have now with the state and regionals, and the few emerging [we need to] create a comprehensive array of programs that are a little bit more integrated than what we have now. And be clear about what we expect people to get at different levels. So that when you choose from the menu of leadership options, what does that look like? Should leadership be offered in distance?... Do emerging leadership programs look different than more advanced leadership programs? What is the relationship between management and leadership? All of those elements I think need to be explored in terms of what are the core curriculum modules that you need at each level. Not that it wouldn't allow a given institute some prerogative in being oriented somewhat to the needs of their local, their local states and so forth, but that there be a better way to make sure that anybody who goes through a leadership institute gets a certain core of leadership knowledge.*

Another explained:

*Well I think we're in the midst of a process now where we're reviewing what leadership's all about. I think there needs to be some discussion of the funding issues as well as the content issues. But I don't think there's agreement, even at this point, between what should a national program and what should a local [teach]. I'm very concerned when the director of CDC suddenly gives a large amount of money to Harvard, like it did over the last 3 years, without being concerned about how it impacts the rest of what leadership programs have been building for 15 years.*

And another emphasized the need for dialogue and consensus-building saying:

*It is...kind of like singing from the same hymn book, but learning different things through that hymn book, you know, or learning at different level. Because obviously the work of directors and senior people is not the same as the work of program managers and administrators, but you want them all to be playing the same piece, and how do you make sure that that's what happening. And I think that happens through a lot of dialogue and work and a lot of consensus-building across the regions, the regional institutes and in conjunction with the national institute.*

*I think people tend to get a little grandiose in their expectations and pretty soon, you know...it's gotta be world peace or you weren't worth anything.*

### **Evaluation**

Respondents had the opportunity to discuss how leadership development should be evaluated in the future, and what outcomes should be measured. Responses varied, with some believing that process measures such as tracking individuals – “where they are and what they’re doing” and participant satisfaction are satisfactory. Others suggested intermediate measures such as changes in personal performance or organizational change. Impact measures were not well specified by those interviewed. Table 8 presents a composite overview of suggested evaluation measures.

Several individuals expressed concern about making causal links between leadership development and outcomes and suggested focusing on “realistic” measures. Some acknowledged that it’s “hard to figure out what we’re measuring” and that outcomes that may result from an investment in leadership development are “multifactorial” and hard to trace to one’s development. One person said, “In many ways, we’re trying to evaluate things that may not be completely able to be evaluated.” Another suggested it may take “years” to measure program impact. False expectations were also mentioned:

*There was some thought that leadership programs would help us with attrition...I think that's a misplaced expectation. [Stability] has to do with political skills and it has...to do with changes with leadership at the top...political skills are common sense – they're hard to teach.*

Some respondents offered thoughts about how to evaluate the program; methods included surveys, interviews, and scorecards. Timing was also mentioned, as some respondents stated that ongoing and “proactive” evaluation would aid in demonstrating program value to funders. Another individual thought that “establishing performance measures in the beginning” of the program would be helpful. One person suggested keeping updated contact information for graduates via regular electronic reminders to make evaluation methods easier to implement.

To measure individual change, some respondents suggested using multi-method assessment, including a multi-rater (or “360 degree”) assessment tool at baseline and

following the program, in addition to a second more objective tool. Post-tests immediately following the program, with two additional post-tests to measure longer term changes were suggested. Another suggested key informant interviews among a sample of graduates and among graduates' superiors. There was also a general suggestion to measure "return on investment."

Table 8. National PHLI Evaluation Measures Suggested by Key Informants

Domain	Possible Process Evaluation Methods and Measures	Possible Outcome Measures
<b>Program</b>	Curriculum evaluation – annual focus groups with alumni	
	Satisfaction with development, perceived value	
<b>Individual Learners</b>	Number of people developed	
	Organizational affiliation	Success -Have roles changed, grown, expanded? -Have graduates achieved their professional goals?
	What are they doing - roles and responsibilities	Knowledge – did people learn?
	Learning outcomes	Confidence Perceptions of performance -How have graduates changed? -Do graduates do business differently? -Do graduates make decisions differently? -Have skill sets changed?
<b>Interpersonal</b>	Have scholars continued to network over a long period of time?	Support – Do I have someone to call for advice or just to chat? Information - Do I know who to call about what issues?
<b>Organizational/Systems</b>	Are there more skilled agency heads?	Have graduates helped their organizations achieve their goals?
	Succession planning	Resiliency of leaders/retention
		Has PHLI built leadership capacity? What is the right dose? What dimensions of leadership are most critical to develop?
	Systems, organizations, programs, policies	Have graduates taken a lead on national health issues? What structural changes did PHLI contribute to?

## Funding for Leadership Development

Although funding for leadership development was not part of our interview guide, some key informants volunteered ideas and thoughts about this important issue. Limited funding over time and perceptions of unstable funding were key considerations. In particular, a few were concerned that any imminent cuts in funding would impact a long history of building leadership efforts. One participant said:

*“We’ve had public health leadership institutes for what, fifteen, sixteen years? And yet, everything seems to be falling apart because of lack of funding.”*

Others commented on how limited funding in general prevents the “implementation of great ideas.” Lack of perceived value by legislators and lack of support for workforce development were named as factors contributing to funding problems. “It’s been very difficult to get people outside of the CDC to fund this thing. But we’ve had trouble getting any kind of thing to enhance the workforce to get funded,” said one participant. Another acknowledged, “Policy makers don’t want to pay for governmental employees getting trained.”

Respondents discussed potential strategies to sustain or enhance funding, including creating partnerships among agencies with key stakes in leadership development, and moving into leveraged funding opportunities with private parties. Others believed the CDC should remain as the program’s sole funder. One participant said:

*It’s a major responsibility of the CDC. CDC is public health. CDC needs for its public health professionals to be adequately prepared to deal with supporting and promoting policy initiatives at the federal, state, and local level.*

Others suggested that agencies such as HRSA, ASTHO and NACCHO fund leadership development in partnership with the CDC. One person noted, “Creating a new program is going to take some pooling of resources. It doesn’t have to all come from the CDC.”

*There needs to be funding at the core level supplemented by dues or a registration fee by people who participate. It has to be funded at the federal level – by the CDC. Something has to be big enough to make that fee affordable.*

Another suggested:

*The way [to design future leadership development] is to have a big break from the CDC-branded institute that’s currently at UNC and to reconvene a set of stakeholders and redesign the new PHLI from the vested interests of all the funders and the graduates – the field.*

One participant also suggested capitalizing on leveraged funding from insurers and pharmaceutical companies, saying organizations like Kaiser, Medicare, and Medicaid might be interested in funding demonstration projects that serve mutual interests. He elaborated:

*Is there a possible demonstration project [other parties] can fund that can help us determine whether or not we can make headway in these areas that are costing Medicare a lot of money? The pharmaceutical side, let's go back to, obesity... given we're not going to eliminate the problem, our strategies need to include managing the problem, maintaining people in a healthy way, which results in them taking different drugs, a self interest in the pharmaceutical [company] to effectively manage individuals, they'll use medication, they'll be healthy. We're trying to implement a disease management program and strategy which we might do with a managed care organization. We think we could save them money and keep people healthy.*

Private foundations, such as the W.K. Kellogg Foundation and the Robert Wood Johnson Foundation were also named as potential funders, with one person noting that it “would be hard to get a state-level foundation involved.” Finally, one person thought that charging dues or a registration fee would be feasible to supplement program expenses.

### **Summary**

PHLI alumni and key informants had a unique opportunity to formally share thoughts about the future of leadership development. These thoughts offer important insight to future leadership program planners and funders. Figure 22 provides a logic model that captures how these ideas might appear visually.

Respondents clearly believed that public health leadership development should continue. Although respondents relied heavily on the current model to inform their thoughts about a future model, they suggested that planners should include these ideas, some of which would be new emphases:

### **Summary of Findings**

- Individual leader development and network development are important synergistic efforts that have helped to create a common public health framework and a fertile ground for diffusion of innovation
- Offer a continuum of “cutting edge” or forward-looking development opportunities including a national institute as well as continuing education and informal development activities to build a culture of lifelong learning and to sustain vibrant networks
- Consider how to support a more integrated and coordinated system of leadership development at the national and state levels
- Consider strategies to strengthen networks beyond the current methods, including enhanced connections to support succession planning and to facilitate opportunities to work on issues of national importance
- Build in an on-going evaluation system, focusing on both process and outcomes
- Adequate and on-going funding is needed in order to support innovative programming and to enhance the existing leadership development foundation

**Figure 22. Future Public Health Leadership Development Model**

