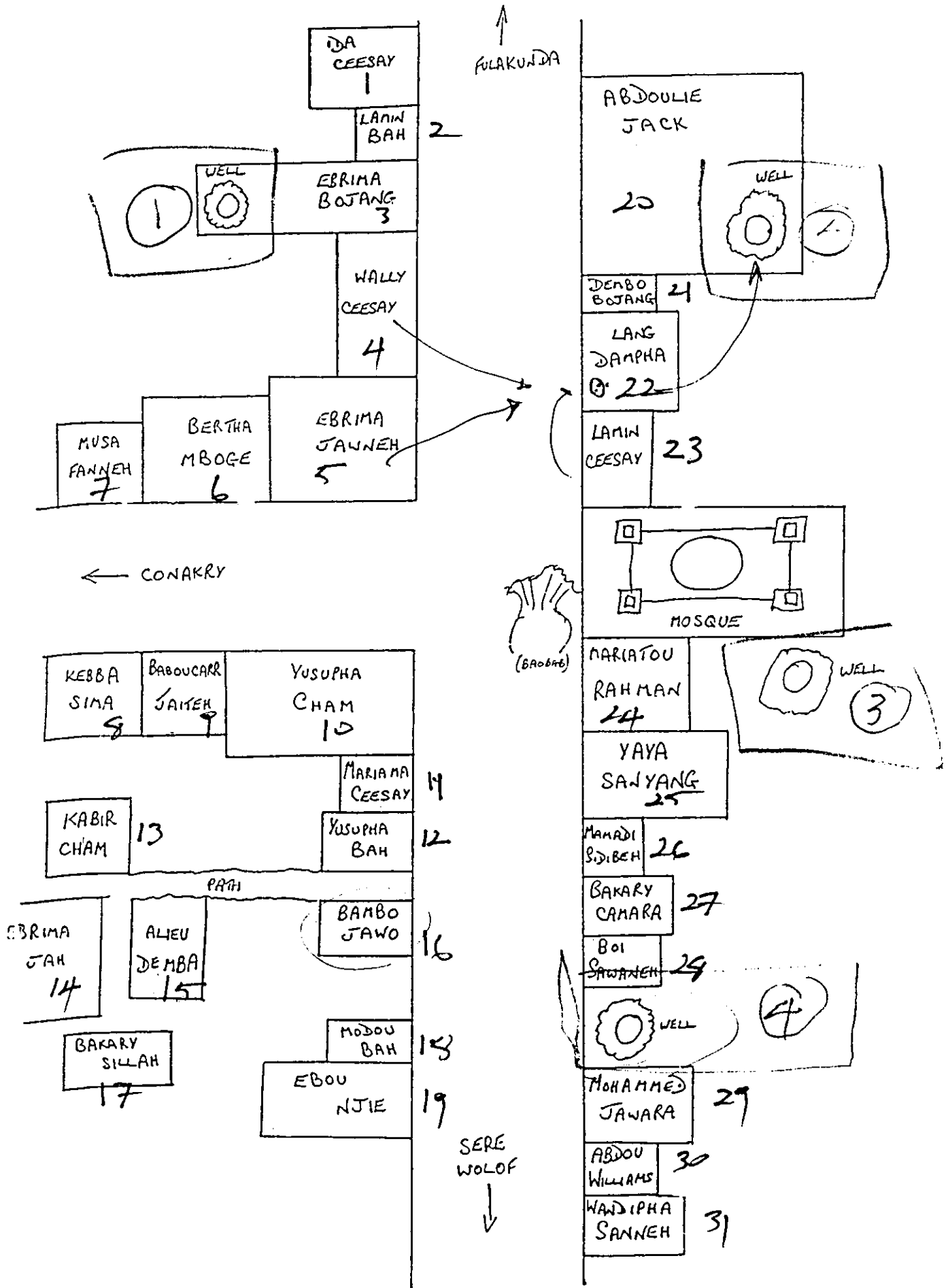


NIOLO JATTABA



スマトラ沖地震・津波に関連した調査・研究に関与された方々への質問調査

現在進行中の厚生労働省科学研究「国際的な健康危機管理に必要なスキル獲得のための人材育成のあり方に関する研究」に関連して、今回のスマトラ沖地震・津波災害という「健康危機」状態に対する調査・研究の経験は、「必要なスキル」を把握するための貴重な経験と考えられます。

つきましては、現在までに当研究班がリストアップした「スキルリスト」の各項目について、必要性などを評価していただくとともに、リストに挙がっていないスキルで必要だと考えられるものがありましたら、挙げていただければと思います。

1. あなたの職種をお答えください。
2. 上記の職種における経験年数をお答えください。
3. スマトラ沖地震関連活動以前に海外でのフィールドワークに携わった回数をお答えください。
4. 下記に挙げた個々のスキルについて、今回のスマトラ沖地震関連活動を振り返り、あなた自身のスキルのレベルについて、自己評価をしてください。

A－調査・研究を行う上で十分なレベルであり、不足を感じなかった。

B－調査・研究を行う上で大きな障害にはならなかったが、不足を感じた。

C－不十分なレベルであり、調査・研究を行う上で障害になった。

D－今回の調査・研究では必要のないスキルであった。

<疫学>

記述疫学・分析疫学

	A	B	C	D
--	---	---	---	---

感染症疫学（含．数理疫学）

	A	B	C	D
--	---	---	---	---

アウトブレイク調査

	A	B	C	D
--	---	---	---	---

サーベイランス

A B C D

勧告（現地機関等への）

A B C D

<感染防御>

感染防御のテクニック

A B C D

院内感染対策

A B C D

感染防御法の教育

A B C D

検疫・出国スクリーニング

A B C D

<感染症学>

感染症総論・各論

A B C D

予防接種

A B C D

医衛生動物学

A B C D

<実験室スキル>

専門実験室スキル

A B C D

各種病因同定法の概要

A B C D

標準的検体採取法・検体取扱

A B C D

<ロジスティック>

物資確保

A B C D

通信

A B C D

交通

A B C D

上・下水供給・水質

A B C D

特殊設備（デコンユニットなど）

A B C D

<危機管理>

中央・地方行政における危機管理システムについての知識

A B C D

マネージメントスキル

A B C D

機関連携・公私連携

A B C D

<コミュニケーション>

感染症対策に関する専門英語

A B C D

情報ソース

対メディア、風評被害について

A B C D

対市民

A B C D

<精神心理ケア・人権>

災害・健康危機における精神心理問題

A B C D

災害・健康危機における人権問題

A B C D

被害者・感染者・家族支持

A B C D

災害・健康危機における集団心理

A B C D

<教育スキル>

教育理論総論

A B C D

教育法概論

A B C D

5. 下記に挙げた個々のスキルについて、今回のスマトラ沖地震関連活動を振り返り、その必要性について、お答えください。

A—十分なスキル獲得が必須である

- B-スキル獲得が望ましい
- C-とくに必要なスキルではない
- D-分らない

<疫学>

記述疫学・分析疫学

A B C D

感染症疫学（含. 数理疫学）

A B C D

アウトブレイク調査

A B C D

サーベイランス

A B C D

勧告（現地機関等への）

A B C D

<感染防御>

感染防御のテクニック

A B C D

院内感染対策

A B C D

感染防御法の教育

A B C D

検疫・出国スクリーニング

A B C D

<感染症学>

感染症総論・各論

A B C D

予防接種

A B C D

医衛生動物学

A B C D

<実験室スキル>

専門実験室スキル

A B C D

各種病因同定法の概要

A B C D

標準的検体採取法・検体取扱

A B C D

<ロジスティック>

物資確保

A B C D

通信

A B C D

交通

A B C D

上・下水供給・水質

A B C D

特殊設備（デコンユニットなど）

A B C D

<危機管理>

中央・地方行政における危機管理システムについての知識

A B C D

マネージメントスキル

A B C D

機関連携・公私連携

A B C D

<コミュニケーション>

感染症対策に関係する専門英語

A B C D

情報ソース

対メディア、風評被害について

A B C D

対市民

A B C D

<精神心理ケア・人権>

災害・健康危機における精神心理问题

A B C D

災害・健康危機における人権問題

A B C D

被害者・感染者・家族支持

A B C D

災害・健康危機における集団心理

A B C D

<教育スキル>

教育理論総論

A B C D

教育法概論

A B C D

6. 上記に挙げたスキルの以外で、必要であると考えられるスキルがありましたら、列挙してください。

以上、ご協力ありがとうございました。

(添付資料：スマトラ沖地震・津波後感染症対策支援に参加した若手研究者の感想の一例)

スマトラ沖地震・津波災害後のスリランカ調査活動（先遣隊）に参加しての反省をもとに、個人的に特に必要性を感じたスキルを下記に挙げる。

1. Rapid Health Assessment を遂行するためのスキル

スキルリストの「疫学」の項目に含まれるかもしれないが、今回特に感じたのは、「必要なデータの収集力」であった。ロンドンの修士(public health)のカリキュラムでも当然「疫学」は履修したが、その内容は「すでにあるデータの解析・解釈」が主体であり、その収集法に関してはほとんど触れられていなかったため、いざ、自分が現場に出たときには、手足が動かない状態だった。

「理論」に関して

現実的で有意義な調査目標のたて方やそれに応じたデータの選択、サンプリング、質問表の作成などのスキルは、今回のような調査には不可欠と思われた。また、上記スキルについての教科書的な知識に加えて、「健康危機」という、時間・資源の制約が大きい場合に特化したスキル（細部にこだわらず、早く、有意義な結果を出す）も必要だと感じた。また、質問表については、平時より generic なものを数パターン作成し、有事の際には状況に応じて細部に変化を加える程度で済むように、準備しておくことが必要だと思われた。

「実践」に関して

地元住人の有効利用や、質問者のリクルート、データの入手先（役所関係など）の把握、倫理的配慮など。最終的には経験を積むしかないのかもしれないが、ケーススタディなどやシナリオ実習などを通じて、多少の感覚は身につくのではないかと思われた。

2. 健康危機管理に必要な IT スキル

今回の調査団で錦織さん・阿部さんが、こまめに GPS のデータを取っていた理由が、実は最初は全く分からなかったが（GPS、GIS について少しは知っていたが、実際使用したのを見たのは初めて）、後で作成した地図やデータを見せてもらい、非常に有用だと実感した。と同時に、今回のような調査を行うにあたっては、今後は必須のスキルになるだろうと感じた。

今回の調査では使用しなかったが、PDA（アメリカではハリケーン後の調査にデータ入力

シートや質問表として使用されていたとのこと)などの電子端末についても習熟しておくことが望ましいと思われた。

他に、有用な web site の情報、海外や、いつもと違う環境でのインターネットへのアクセスの方法なども、迅速な情報収集・提供のために今後は必要になると思われた。

3. ロジスティク (特に安全確保の意味での)

ロジはロジの専門家に任せるものという意識だったが、今回のように少人数で、しかもロジの専門家 (実際は錦織さんがすばらしく、この役割も果たしてくださったのですが) の同行がない場合は、各調査員が最低限のロジのスキルを持っていないと、調査が滞ってしまうことを痛感した。

特に途上国での感染症を専門に特に自分は初の調査であったこともあり、車や通訳の調達自体も新鮮で、地方での民家の借り上げなどは、全く予想外のことであったし、スリランカ独特の、スリランカ軍と LTTE の関係も印象的であった。こういった、調査の「裏側」の常識についても、ケーススタディなどを通じて教育する必要があると感じた。

確かに、将来的にロジの専門家を多く育てることは必要だと思うが、実際、特に感染症を主体とした健康危機管理のために派遣されるのは、今回のように少人数の医学系の専門家であることが予想され、その場合、個人のロジスキルによって成果は大きく変わりうる。したがって、本研究の目指すカリキュラムの中では、医学系の人材に対しても、一定水準のロジスティク教育を設ける必要があると思われた。

また、これらの交通、宿舎の確保といったロジのスキルは、円滑に調査活動を進めるためだけのものではなく、調査団や個人の安全確保のためにも必須である。Outbreak を中心に考えると「感染防御=安全確保」ということになるが、今回のような災害時や海外での「健康危機」の現場に入って活動することを考えると、このような広い意味の「安全確保」もひとつのスキルとして挙げられるかも知れない。

Framework Document

Academic Centers for Public Health Preparedness:

**A Network of Schools of Public Health Partnering with State and Local Health Agencies and CDC
to Protect the Nation from Bioterrorism, Infectious Disease Outbreaks and
Other Emergent Public Health Threats**

May 2002

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Background and Introduction

The American public now faces a significant risk of a bio-terrorist attack. Unlike other terrorist threats - such as with airline hijackings - no early warning security system is able to detect and warn of an incident before it occurs. The most reliable national protection is a highly sensitive system of surveillance and early detection that can immediately alert authorities to contain, control and treat exposure to a bio-terrorist agent. Therefore, just as the federal government moved definitively to reconfigure the airline security workforce to ensure public safety, steps must immediately be taken to prepare the nation's public health workforce for an equally important yet vastly different set of security measures. The urgency of this effort is compounded by the fact that the nation cannot rely on past experience with bioterrorism to prepare it for what could be a potentially catastrophic event. The fall 2001 anthrax experience demonstrated just how unprepared the public health infrastructure is to manage a massive bio-terrorist incident. A 1999 survey indicated that only 6% local public health officials nationwide had received any training in bioterrorism. Further evidence confirms that 85% of public health officials assert that their departments are not ready to respond to a bio-terrorist emergency.

The Centers for Disease Control and Prevention (CDC) is responsible for coordinating preparedness of the public health workforce. As part of its comprehensive effort to prepare state and local public health officials to respond to a bio-terrorist attack, the CDC is incorporating an important national asset, accredited Schools of Public Health (SPH), to generate new knowledge, new training protocols, and proficient national deployment of necessary skills and information. For this purpose, the CDC developed a national network of Centers for Public Health Preparedness. Three types of centers are in place: 1) *Local Exemplar Centers*, established in local health departments to develop models of integrated communications and information systems, advanced operational readiness assessments, and comprehensive and skills-based training programs; 2) *Specialty Centers*, established in colleges or universities to focus on a specific topic area or professional discipline (e.g., bioterrorism, public health law, informatics); and 3) *Academic Centers*, the largest group of centers established in schools of public health, link schools with state and local health agencies and other partners to train the front-line public health professionals who will respond to bio-terrorist incidents and other emerging infectious diseases, the critical component in protecting the nation's health.

The network of academic centers for public health preparedness (A-CPHP) is a joint collaboration of the schools of public health, Association of Schools of Public Health (ASPH), CDC/U.S. Department of Health and Human Services (DHHS), and representatives from state and local public health agencies, including the Association of State and Territorial Health Officials (ASTHO) and National Association of City and County Health Officials (NACCHO). The power of this network lies in its ability to function in a coordinated fashion across the country to achieve similar goals. Moreover, this network of A-CPHP will enable SPH and the states to leverage their resources by working together to create a strong lattice of preparedness centers.

Since the foundation of the A-CPHP was already operational prior to September 11, 2001, this network was able to assist the public health system in its response efforts by providing necessary and immediate information and training. By example, one of the centers at the Mailman School of Public Health at Columbia University played a critical role in preparations that significantly enhanced the response to the World Trade Center attacks. Looking forward, it is vital to take the early "lessons learned" and translate them into plans and preparations for likely future threats that will affect the nation's health, requiring an immediate response from its health infrastructure.

Key among those "lessons learned" is the importance of skilled training, drills, and practice in early detection, response, and disaster management. This training must account for the fact that response

systems - to include public health officials, public safety officials, law enforcement agencies, and national security authorities who are not accustomed to coordinated efforts across professional lines - must quickly join forces. Each of these systems must be acutely ready and prepared. Reliable public health surveillance and communication activate the first alert and response to a biological threat. Schools of Public Health are uniquely capable of providing the public health infrastructure with the expertise, training, and dissemination of information necessary for this sort of early, practiced, skilled, and comprehensive strategy of public health workforce preparedness. The crucial role of A-CPHPs is to link this academic expertise with the needs of public health workers in the field. The A-CPHPs bring to this task unique capabilities, including expertise in adult education, learning technologies, and systems change. The A-CPHPs will translate the expertise residing within the SPH into the language of timely, relevant, and effective training programs for public health workers. A-CPHP will also help to increase the capacity in accredited SPH to meet the professional education and training needs of the state and local public health agencies.

The public health system cannot be rebuilt overnight. Therefore, in order to increase this country's public health defense system significantly, a long-term coordinated strategy is crucial. This will require building strong partnerships between A-CPHP, state and local public health agencies and CDC as well as building appropriate capacity in SPH. The linked efforts of the CDC, state and local public health officials, and SPH coordinated through the ASPH, provides the critical resource in protecting the nation against a massive biological disaster.

This document describes the framework for coordinated activities between A-CPHP, state and local health agencies, ASPH and CDC designed to improve preparedness for bioterrorism, infectious disease outbreaks, other public health threats and emergencies. The document also indicates how accountability will be assured and provides for a common set of activities across all academic centers.

**Core Activities of the
Academic Centers for Public Health Preparedness (A-CPHP)**

The A-CPHP will function as a coordinated, national network of academic training centers that will work in close partnership with state and local public health agencies to 1) identify the educational and training needs for bioterrorism, infectious disease, other public health threats and emergencies; 2) support activities identified in state planning documents (*Guidance for FY 2002 Supplemental Funds for Public Health Preparedness and Response for Bioterrorism --Announcement number 99051*); 3) develop appropriate education and training programs in bioterrorism and infectious diseases in concert with national efforts and standards; and 4) develop appropriate capacity in SPH for professional education and training. Given the current state of the public health infrastructure and the current capacity in SPH, a long-term commitment and a coordinated strategy will be needed to achieve these goals. The mechanism to achieve these goals will be a framework common to all A-CPHP across the country.

The following activities, common to all A-CPHP, will constitute approximately 80% of total budget expenditures.

1. A-CPHP will place priority on developing and enhancing relationships with state and local public health agencies.
2. A-CPHP will build and expand capacities in SPH to provide professional education and training in bioterrorism, infectious disease, and other public health threats and emergencies to state and local health agencies.
3. A-CPHP will work with state and local public health agencies to identify training needs of public health workers. Initial assessments will focus on identifying gaps in knowledge and skills that state and local public health professionals need to effectively manage a bio-terrorist event.
4. A-CPHP will work with state and local public health agencies to assess and continually monitor the specific training needs in bioterrorism, infectious disease and other public health threats and emergencies.
5. Based upon needs identified by state and local public health agencies, A-CPHP will develop education and training programs in bioterrorism, emerging infectious diseases, and other public health threats and emergencies. These programs will:
 - a. be competency-based;
 - b. include a core set of competencies, appropriate for different categories of public health workers, including front line staff, senior professionals, technical specialists, and leaders. These competencies will be relevant to content areas in the *National Bioterrorism Training Plan*, including but not limited to the following:
 - Characteristics of Biological Agents Class A, B and C associated with bioterrorism
 - Clinical Manifestations
 - Surveillance and Epidemiology
 - Laboratory Systems
 - Health Risk Communication and Media Relations
 - Psychosocial Impact of bioterrorism
 - Worker Safety Issues
 - Information Technology

- Public Health Law

- c. employ multiple training strategies using a variety of modalities and be widely accessible to health professionals.
7. A-CPHP will work with state and local health agencies to develop common methods for evaluating the effectiveness of the training activities, the knowledge of specific competencies and increased capacity, relative to national standards, for responding to bioterrorism, infectious disease and other public health threats and emergencies.
 8. To avoid duplication of activities and increase effectiveness, A-CPHP and ASPH will identify and share best practices, models, and innovative approaches among all centers.
 9. Accountability will be a high priority and will be assured through frequent monitoring and evaluation of the effectiveness of A-CPHP in providing the core activities, and meeting the education and training needs of state, local health agencies in to bioterrorism, infectious disease and other public health threats and emergencies.
 10. A-CPHPs will aid in designing and conducting evaluations that assess the competency of individuals and performance standards, assessments of agencies, formal drills, exercises, and other activities to document and validate preparedness at all levels.

In addition to the core activities noted above, some activities performed by the A-CPHP may be individualized to the local level and may include other partners beside state and local public health agencies (e.g., other first responders such as police officers, physicians, nurses). To provide the greatest flexibility, 20% of program funds may be directed to these efforts.

Central Functions of the Academic Centers for Public Health Preparedness Network

The network of A-CPHP is a joint collaboration of the schools of public health, ASPH, CDC/DHHS, and state and local public health agencies. The power of this network will be in the partnerships formed between the schools and states, the commonality of the framework and how activities will span all centers across the country. Working together, this network will provide a defense system that can prepare for and quickly respond to bio-terrorist and other public health emergencies. Not only will the individual A-CPHP meet the training needs of the state and local health agencies, but the network, which is inclusive of ASPH and CDC/DHHS, will serve as a national, state and local resource for information and technical assistance in the event of a national public health crisis.

The activities of the A-CPHP will be complemented and strengthened through centralized program coordination and management between the CDC and ASPH. ASPH, working in collaboration with CDC, ASTHO, NACCHO will provide coordination of this program, promoting collaboration among the individual A-CPHP and with the state and local public health agencies in order to best meet the education and training needs of these agencies. Strategies for a successful network include high accountability, national oversight and formidable partnerships; products for a successful network will include training, communication. Furthermore, on-going evaluation of measurable outcomes will be a critical component of this program to ensure accountability to CDC, DHHS and to Congress. Together, these strategies and products will form the central functions of the A-CPHP network. To achieve these will require a long-term strategy and continued commitment.

Partnerships

ASPH will act as a catalyst for bringing the public health academic and practice communities together in order to identify gaps in critical knowledge and skills related to bioterrorism and infectious disease, and undertake the requisite planning and training needed to fill these gaps.

- ASPH will convene a meeting of state and local public health agencies to present the training needs, what is the current state of meeting those needs and what do A-CPHP want to do in meeting those needs.
- ASPH will facilitate the coalition “Protecting the Nation’s Health” which includes national organizations representing the public health practice and academic community (including ASTHO, NACCHO, ASPH, AHC, among others). This coalition meets regularly to foster relationships at the national level and collaborate on efforts to ensure that bioterrorism preparedness training is available to state and local health department personnel.
- ASPH leadership will meet with ASTHO and NACCHO regularly to ensure that from a national perspective, the A-CPHP are meeting the specific needs and goals of local and state health departments and to identify incentives that will encourage collaboration between SPH and state and local public health agencies. Successful collaboration must be actively encouraged by the respective organizations, with barriers proactively addressed.
- ASPH will work with A-CPHP to increase capacity in SPH to increase education and training in bioterrorism, infectious disease and other emerging health threats needed by state and local health agencies.
- CDC and ASPH will convene semi-annual meetings of appropriate academic and practice partners in national preparedness that will provide informational and technical updates, share

national data and trends, ensure linkages with other organizations, and provide overall program guidance

- Together with CDC, ASPH will attend regional site visits where A-CPHP, in consultation with CDC and their states, will refine work plans.

Education and Training

ASPH will work closely with A-CPHP, CDC, ASTHO, and NACCHO and to ensure that unique education and training programs developed through the network of A-CPHP is widely disseminated and that the capacity of SPH continue to sustain these efforts.

- ASPH will help augment staffing in public health agencies by coordinating specialized training fellowships in bioterrorism, infectious disease and other emerging health threats in state and local health departments in conjunction with placements at CDC through the existing CDC/ASPH Internship and Fellowship program.
- ASPH will work with A-CPHP and CDC to provide training for the states that do not have reasonable access to an A-CPHP.
- ASPH will maintain a resource center that will provide information on bioterrorism training information accessible by the A-CPHP, federal, state and local health agencies, and the public. ASPH will catalogue information generated from the academic centers including needs assessments, evaluation tools, training materials and products, research bibliographies, and other materials. This site will be linked to other clearinghouses.

Communication

ASPH will facilitate communication between A-CPHP, CDC, ASTHO, NACCHO and state and local health agencies to assure effective communication.

- ASPH will convene regular meetings with CDC, ASTHO, NACCHO and state and local health agencies to assure effective communication.
- CDC will collaborate with DHHS and other federal agencies to assure coordination of activities within the national system of Centers for Public Health Preparedness program, which includes Academic Centers, Specialty Centers, and Local Exemplar Sites.
- In collaboration with CDC, ASPH will continue to share information and convene the academic centers via conference calls to update all centers on current developments.
- ASPH will disseminate information related to bioterrorism education and training opportunities through, an electronic newsletter that reaches an audience of over 1,500 members of the public health workforce weekly.
- ASPH will staff and coordinate several committees supporting the A-CPHP that may include the Steering Committee (representing the center PIs), the Coordinators Committee (representing the program coordinators) and an Evaluators Committee (representing evaluators from each of the centers). These committees will convene during the semi-annual A-CPHP meeting and by conference call if necessary to share information and to assure uniformity across centers.

- ASPH will staff and coordinate the *Academic Public Health Caucus* of the American Public Health Association, which provides the primary forum at the APHA annual scientific meeting for the exchange of research findings and professional practices in public health education and training. The Caucus will provide a forum for the A-CPHP to exchange information on bioterrorism and infectious disease training.

Evaluation

ASPH in partnership with CDC, A-CPHP, ASTHO, and NACCHO will establish an evaluation framework for the A-CPHP program, including a core set of data elements to measure output, outcome, and impact. This activity will build on the framework previously developed by a workgroup of workforce researchers, A-CPHP evaluators, CDC and other partners. ASPH will coordinate an Evaluators' committee to facilitate progress in this area.

Accountability

Accountability will be a high priority and will be assured through frequent monitoring and evaluation of the effectiveness of A-CPHP in providing the core activities and meeting the education and training needs of state, local health agencies in bioterrorism, infectious disease and other public health threats and emergencies.

- CDC and DHHS will directly communicate with the Governor of each state and, where applicable, with the state and local health departments with which the A-CPHP are to collaborate to state CDC's and DHHS' expectation that those entities will collaborate with the A-CPHP.
- ASPH will work in collaboration with A-CPHP, CDC, ASTHO, and NACCHO to develop an agreed upon mechanism for accountability.
- A-CPHP will be held accountable for their activities through a peer review process in which they will measure their effectiveness in meeting the core activities. Also, there will be management and financial oversight from ASPH and CDC to assure that budgets are allocated appropriately.
- A-CPHP will aid in the conduct and evaluation of formal drills, exercises, and other activities to document and validate preparedness at all levels.
- A-CPHP and ASPH will complete progress and financial reports, which will document activities and evaluate the progress of their measurable objectives identified in project work plans, established in collaboration with CDC and state and local health agencies at the onset of their project. A-CHPS will submit reports on a quarterly basis to ASPH.
- ASPH will publish an annual report documenting the lessons learned, best practices, and accomplishments from the A-CPHP. The report will also demonstrate financial accountability. This annual report will be distributed widely to schools of public health, CDC, DHHS, Congress, national public health organizations, and others identified by CDC.

Oversight and Advisory

Accountability and outcomes are major goals of the A-CPHP network. ASPH will assure accountability and the necessary outcomes of the A-CPHP network through an appropriate national oversight and advisory system. Members will include principle investigators from the three cohorts of academic A-