

IAIMS:TNG Site Visit
Next Generation IAIMS (focus areas) - Multiple Sources Statements

Demonstrations/Pilots/Models	<u>multiple institutions</u>	<u>multiple individuals</u>
1 Model efficient ways to move an IT application from development to production.	4	
<ul style="list-style-type: none"> • <i>We need models for efficient ways to move an IT application from development to production</i> • <i>fund pilot that precedes a full implementation</i> • <i>how to move things smoothly from development to production</i> • <i>create a support mechanism that goes through process from development to market</i> 	 I C K B	
2 Use of emerging technologies (i.e. wireless broadband, virtual environment, etc.) for learning and in health care.	3	6
<ul style="list-style-type: none"> • <i>explore wireless broadband and applicability in medical care</i> • <i>peer communications for IT innovation in education</i> • <i>support new technology infrastructures (i.e., beowulf clusters) for high performance and parallel computing</i> • <i>fund demonstrations of emerging technology (wireless, virtual environment) for learning</i> • <i>support experiments with emerging technologies (PDA, etc)</i> • <i>technology immersion techniques for faculty: PDAs, wireless, how internet is changing curriculum, etc.</i> 	 M M D C D D	
3 Remote collaborative work, e.g. joint algorithm development, real-time document editing.	3	4
<ul style="list-style-type: none"> • <i>tools for remote collaborative work so people could develop an equation together, but one person ends up with the final</i> • <i>models of online peer review & publication</i> • <i>develop software for shared desktops, so 2 remotely located scientists can collaborate, share documents, but also have 'face time' etc.</i> • <i>tools for collaborative research</i> 	 B B L C	
4 Delivering full text attached to MEDLINE.	3	
<ul style="list-style-type: none"> • <i>NLM should help in negotiating licenses for full text with publishers and deliver it attached to MEDLINE</i> • <i>work with publishers to get full text accessible through MEDLINE</i> • <i>Bring a group together (as was done for UMLS) to explore and build literature linkages into clinical information systems</i> 	 L J G	
5 Techniques for managing huge databases, e.g. Micro arrays.	2	6
<ul style="list-style-type: none"> • <i>support for micro-array data</i> 	 B	

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- *techniques for managing huge databases* | B
- *create an operational grants mechanism to support large databases, as for the biotech grants* | B
- *explore mechanisms for maintaining microarray data* | B
- *ability to 'sculpt' data downloaded from large gene & protein databases* | B
- *bring micro array data into public access - maybe a deposit center at NLM* | L

6 On-demand, bite-sized CME with technology recording/compiling credit, etc. **2**

- *package CME in bites so people can do it at their own pace, use technology to record and compile credit* | A
- *We need on-demand, tailored CME software that users can 'bookmark' when they have to leave in the middle to do other work* | I

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Grant Mechanisms	<u>multiple institutions</u>	<u>multiple individuals</u>
7 Seed money for short proposals, e.g., proof of concept, pilots, projects with high risk, good ideas.	6	8
<ul style="list-style-type: none"> • <i>create a mechanism for short proposals</i> • <i>We need to provide funds and technology to seed innovations on a small scale</i> • <i>We need a fast-track process to implement small pilot projects</i> • <i>seed money for small –scale projects so things can be tried without making the entire institution change</i> • <i>Support for low cost projects, e.g., money for building data sets</i> • <i>money for pilot testing good ideas</i> • <i>help jump-start collaborative projects, provide seed money</i> • <i>Development funds for demonstration projects</i> 	B I I M L C D M	
8 Support adoption of national information standards.	4	5
<ul style="list-style-type: none"> • <i>support development & adoption of information standards & policies, it could be an evaluation criterion of grant program</i> • <i>Need to support an effort for national standards, for defintion. not a demonstration or academically intersetting thing, not an R01.</i> • <i>support adoption of national standards, work toward common ID</i> • <i>support implementation of standards</i> • <i>Cooperative groups at many institutions is where it's going. We need standards so systems don't change from one study to the next.</i> 	B G M C G	
9 Indirect costs for informatics infrastructure & IAIMS grants.	4	
<ul style="list-style-type: none"> • <i>include indirect costs for informatics infrastructure & IAIMS grants</i> • <i>We need to add more intelligence to the network infrastructure</i> • <i>Funds for capital installation of equipment in exam rooms</i> • <i>continue to fund infrastructure</i> 	B I M C	
10 Incentive for multi-institutional proposals for IAIMS and R&D.	4	
<ul style="list-style-type: none"> • <i>support multi-institutional proposals for IAIMS</i> • <i>Need funding for for multi-institutional R&D projects</i> • <i>multi-institutional pilots, like a clinical trial for technology</i> 	B G C	

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- *We need to support multi-institution IAIMS projects that are non-threatening and non-controversial, but that require participation by at least some of the competing organizations*

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I

11 Involve non-university health care organizations.

3

- *We need to provide support for other organizations involved in health care and research, not just the University*
- *allow non-university health care organizations to apply*
- *involve multiple government agencies & industry in agreeing on clinical nomenclature for billing and template for clinical trial reports*

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12 Support collaborative work & connectivity with community practitioners.

2

- *support collaborative work & connectivity with community practitioners*
- *help build infrastructure out into the community*

|
D
D

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Education & Training

13 Curriculum of required IT skills for graduate students.

multiple
institutions multiple
individuals

3

- *develop a curriculum of required IT skills for graduate students*
- *create clearinghouse of standardized curriculum components*
- *create curriculum/literacy requirements for grad students in health Sci*

| B
| J
| E

14 Build IT into curriculum for health teams that include physicians & nurses.

2

- *build IT into curriculum for health teams that include physicians & nurses*
- *fund faculty development training programs for using new IT*

| B
| C

New Information Resources

15 Repository of basic science learning materials.

multiple
institutions multiple
individuals

3

- *Need a way to capture the handouts, searches, talks that house staff did. The chief residents develop talks all year long in every department, and all of those are lost to the institution when they leave*
- *fund consortial development of basic science learning materials*
- *build portals for basic science topics*

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16 Repository of reviewed, high quality health-sciences scholarly knowledge.

2

- *We need to build a repository of reviewed, high quality health-sciences information so we are not held hostage by commercial vendors of this information*
- *(informal conversation at visited institution)*

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| K

17 Case bank of peer reviewed online cases.

2

- *draw upon patient data in clinical system to create educational cases, individual & aggregate*
- *case bank of peer reviewed online cases*

| F
| M

18 Virtual patient' cases to bring students experience they can't get in their training location.

2

- *virtual patient'cases to bring students experience they can't get in their training location*
- *virtual learning labs for students - e.g. cat lab*

| D
| D

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Software Development & Standards

	<u>multiple institutions</u>	<u>multiple individuals</u>
19 Interface engines & techniques for mapping from one system to another.	5	
<ul style="list-style-type: none"> • <i>interface engines & techniques for mapping from one system to another</i> • <i>Explore how structure of database could help carry data through platform & software migrations</i> • <i>large databases that talk to each other at some levels but not at others</i> • <i>database architecture for LCME self study</i> • <i>develop models of how to effectively integrate multiple systems</i> 	F L K D E	
20 Specifications for IT components (systems, pathways, protocols) to support health care.	3	
<ul style="list-style-type: none"> • <i>adoption of common systems, pathways, protocols</i> • <i>develop a standard for care, specs for IT component</i> • <i>Need tools that support maintaining records on development of protocols, signoffs, audits, etc. so your electronic file is acceptable as a submission for FDA</i> 	M B G	
21 Tools for searching across diverse databases.		3
<ul style="list-style-type: none"> • <i>techniques for querying huge databases</i> • <i>technique to search across diverse databases and download results to a local file</i> • <i>ability to search across articles at the section level - I.e., search methods</i> 	B B B	
22 Standards for unified system of data so every provider, payer, agency doesn't have a different set of databases.	2	3
<ul style="list-style-type: none"> • <i>Need accepted standards for unified system of data so every provider, payer, agency doesn't have entirely different set of databases</i> • <i>govt should require all payers to use the same system</i> • <i>We need to develop standards for patient billing elements that follow a consistent interpretation of the ANSI 12 standards</i> 	G G I	

Studies

	<u>multiple institutions</u>	<u>multiple individuals</u>
23 Proof of relationship between IT-based intervention (e.g., protocol driven data gather) and better outcomes for patients.	5	
<ul style="list-style-type: none"> • <i>tools that let users explore clinical data without violating privacy - see relationships, for example, between treatment and outcomes</i> 	J	

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- *develop proof, regarding relationship of early intervention and outcomes for patients*
- *need proofs of ROI for IT investment, particularly effect on patient errors, quality*
- *We need to use hard data to help make the case for IT changes. We also need to show small hospitals how IT investments can bring real value to their enterprise*
- *Study how efforts in IT affect knowledge gaps*

| B
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| I
| G

24 Study relationship between educational techniques and patient outcomes.

2

- *studies to show the linkage of education to patient outcomes*
- *Explore how to track health care outcomes and can tie them back to education*

| F
| G