Health Librarianship and Health Informatics: Natural Convergence or Managed Change?

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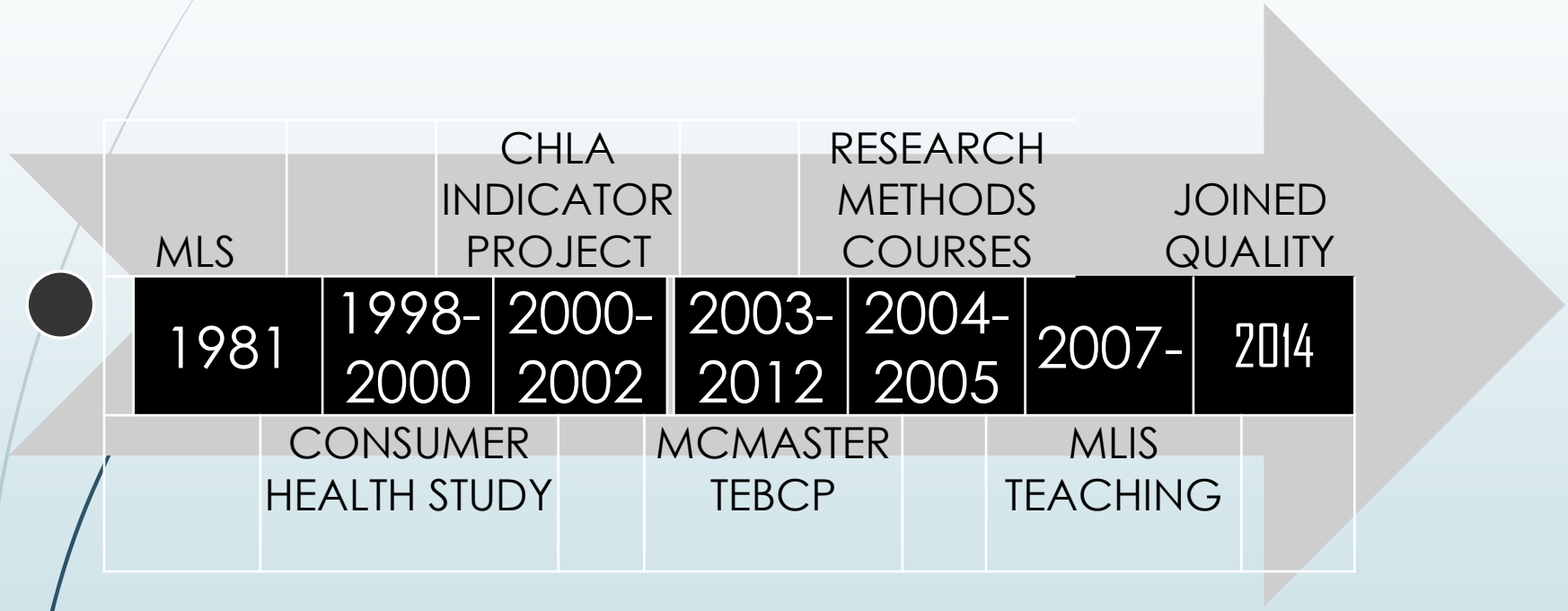
Outline

1. Introduction and influences(2)
2. Q: To what extent is health science librarianship likely to integrate with the field of health informatics? (10)
3. Library-based research: Methods, results, service outcomes (10)
4. Conclusion (2)
5. Questions

	Year (time)	Work Setting	Reporting
1	1981-83 (2.5 years)	Tertiary Acute Care & Academic health sciences	University Library
2	1983-85 (2.5 years)	Academic health sciences	Faculty of Dentistry & University Library
3	1985-93 (8 years)	Academic pure and applied sciences	University Library
4	1994-96 (2 years)	Consulting & contract – engineering and acute care services	Independent Information Broker
5	1995-98 (3 years)	Rural secondary care hospital & BScN School	School of Nursing
	1998-2000 (2 years)	Rural primary and secondary health service & BScN School	Human Resources
	2000-2013 (13 years)	Rural primary and secondary health service & BScN School	Information Services (with IT, Telecomm)
	2014-	Rural primary and secondary health service & BScN School	Quality, Risk and Patient Safety

Major Influences



Part 1 - Q: To what extent is health science librarianship integrating with the field of health informatics?

Definition/Description/Perception

Career Preparation/Certification

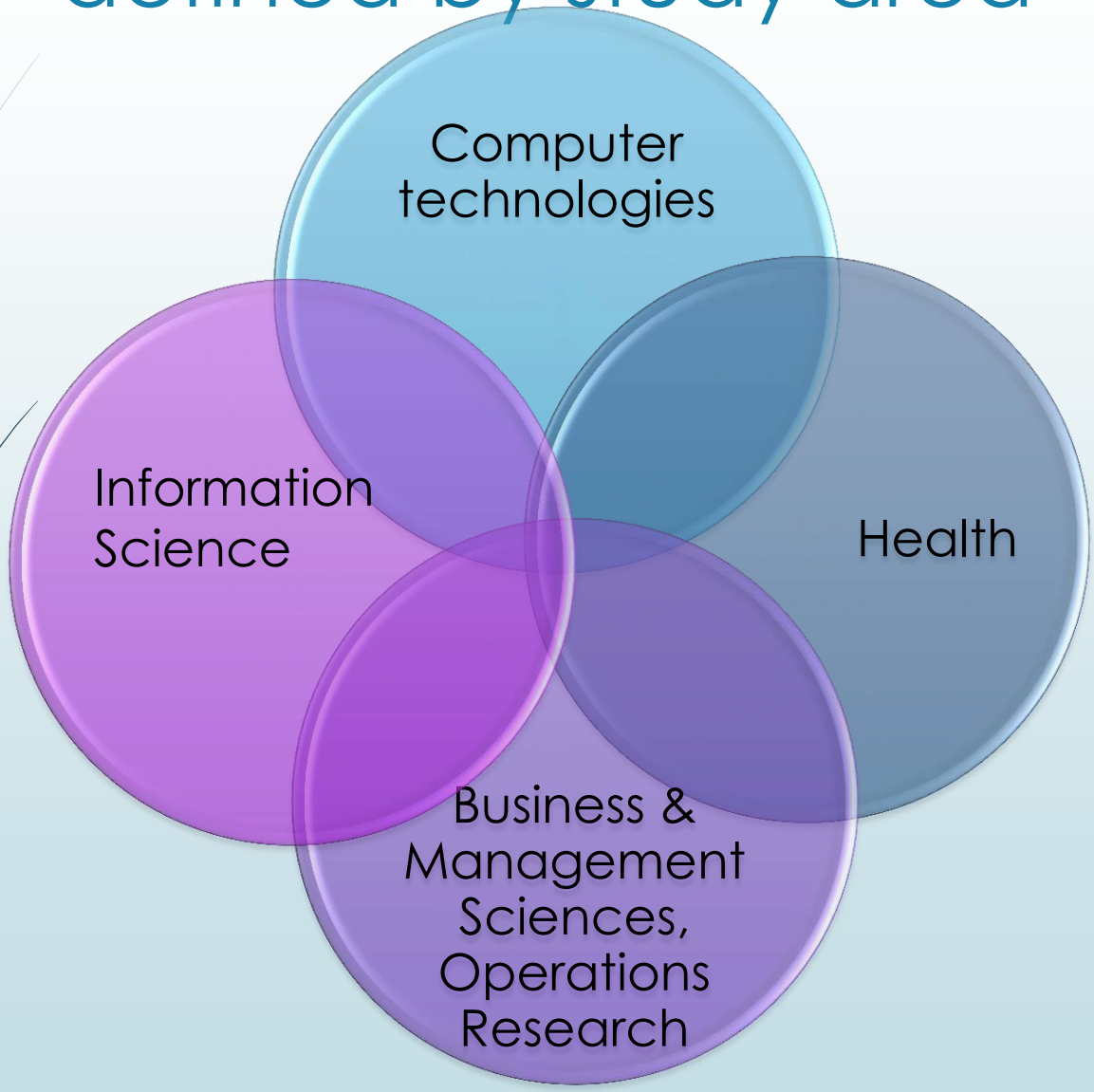
Subcategories/Divisions

Challenges

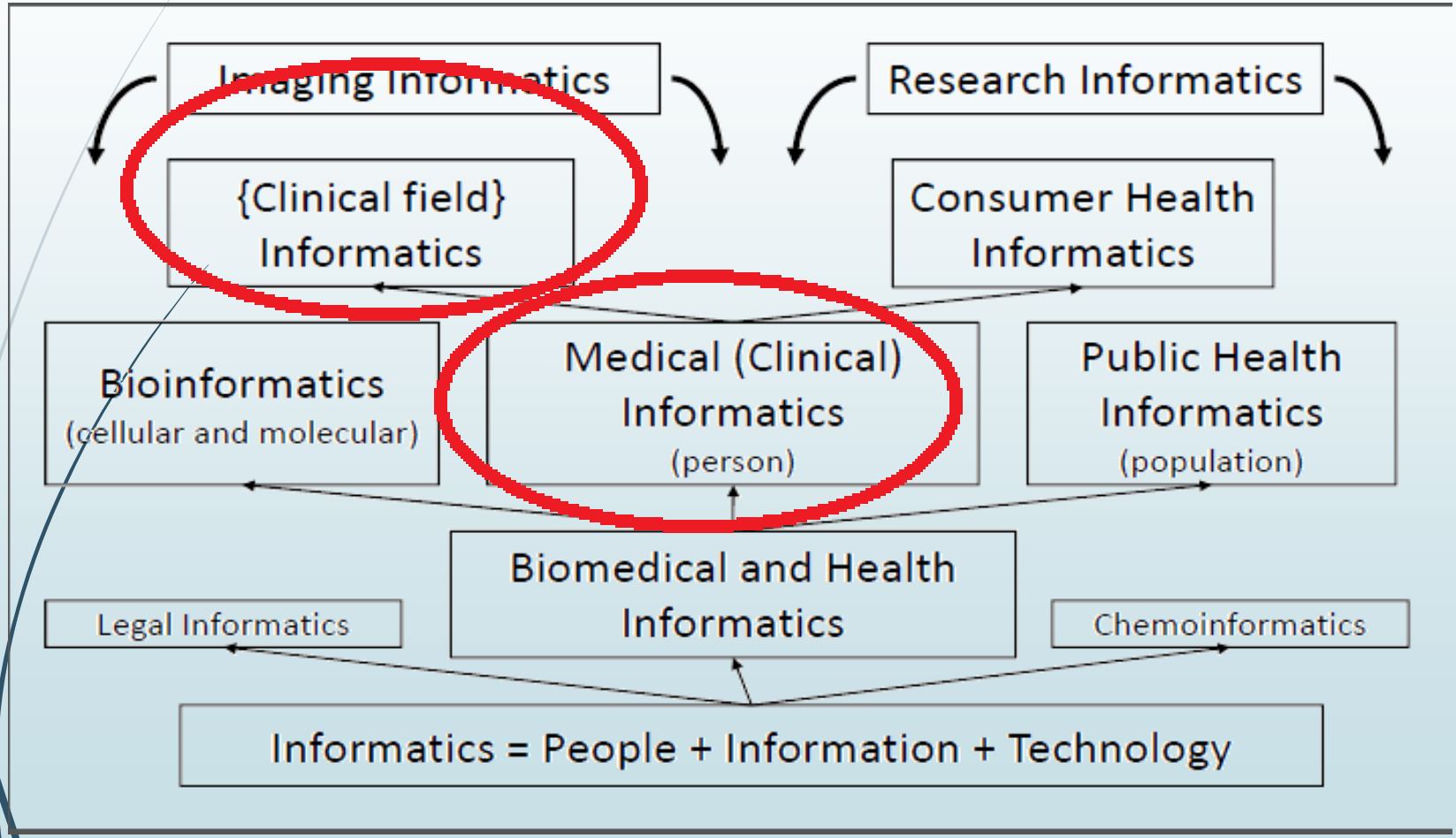
Health Informatics: emerging as a **distinct** and **dynamic** academic discipline

Health service libraries: traditionally health services' best managed information area!

Health Informatics – typically defined by study area

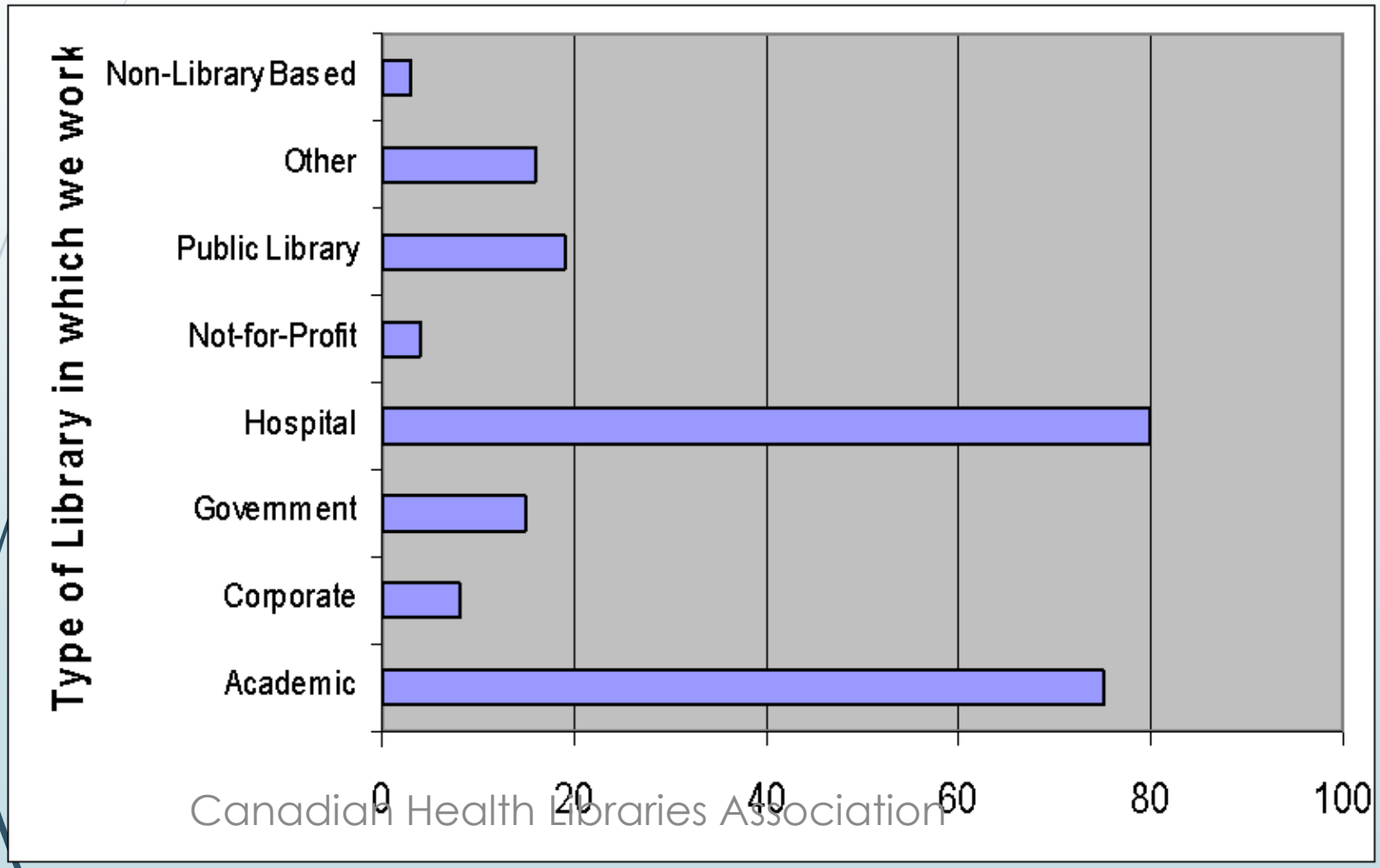


Major Subcategories of Health Informatics

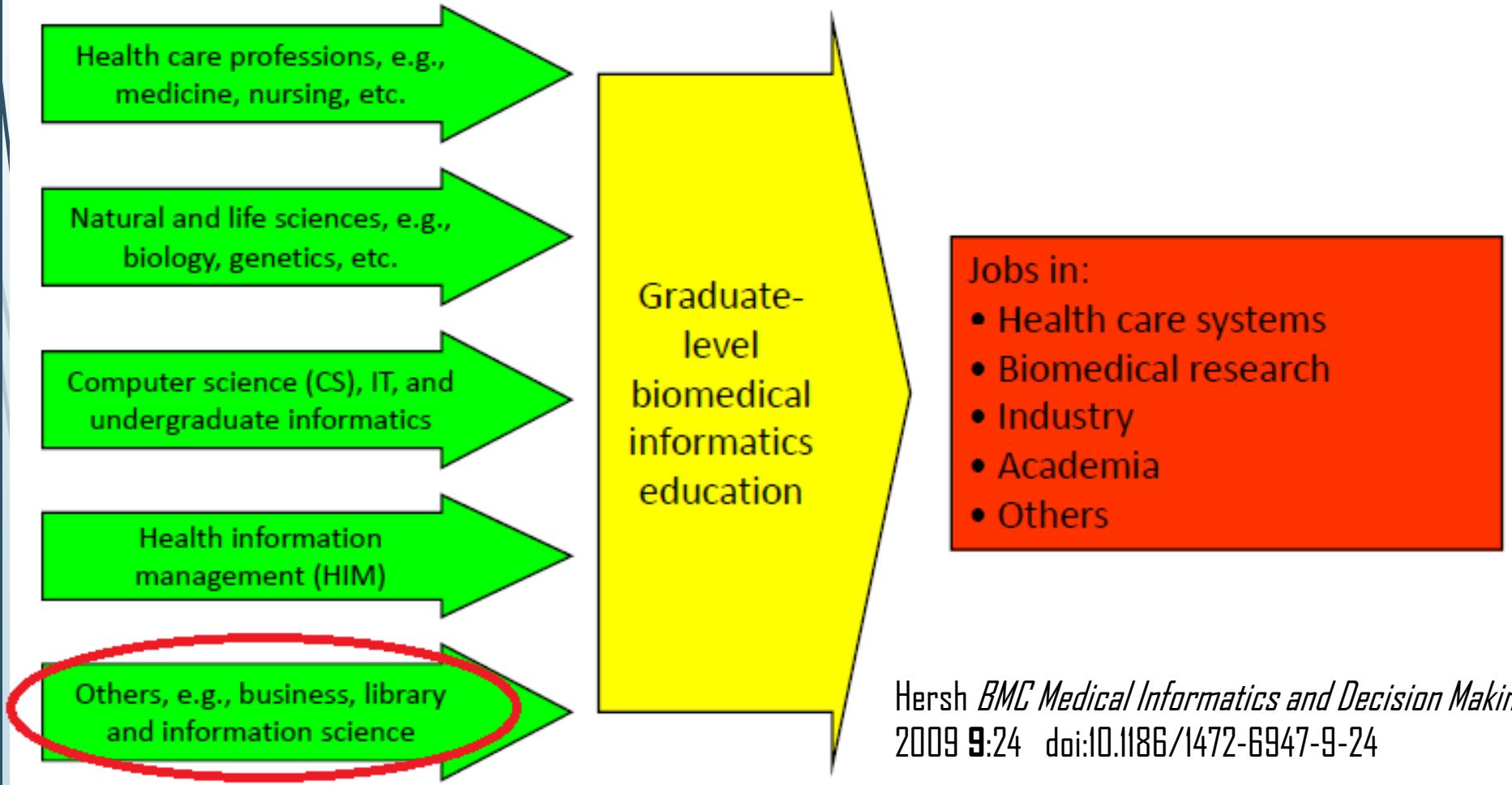


Hersh *BMC Medical Informatics and Decision Making* 2009 **9**:24 doi:10.1186/1472-6947-9-24

Health Librarianship – typically defined by setting



Health Informatics Career Pathways



Hersh *BMC Medical Informatics and Decision Making* 2009 **9**:24 doi:10.1186/1472-6947-9-24

Health Librarianship Career Pathways

EDUCATION FOR HEALTH SCIENCES LIBRARIANSHIP

The foundation for any librarian position is the master's degree in library and/or information science from an ALA-accredited library science program.

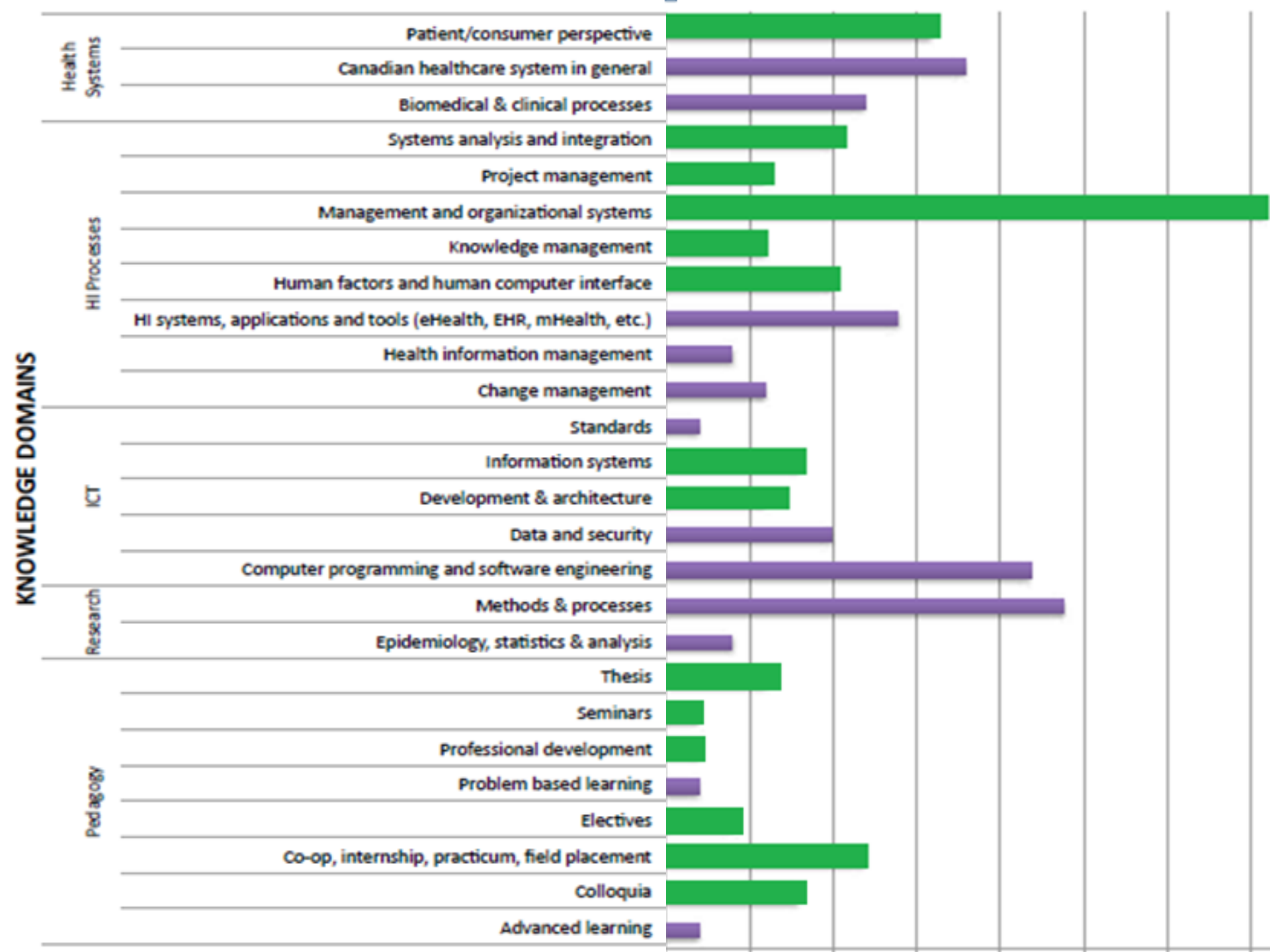
ethics, philosophy, history, organization of scholarly materials, building and acquiring resources appropriate for the community to be served, the design and implementation of services needed by users, understanding and using information technologies as a tool for information access and delivery, and the overall management of the library and its staff. Additional course work provides instruction for the specialization the student wishes to pursue.

To pursue a specialization in librarianship, the student takes the required core

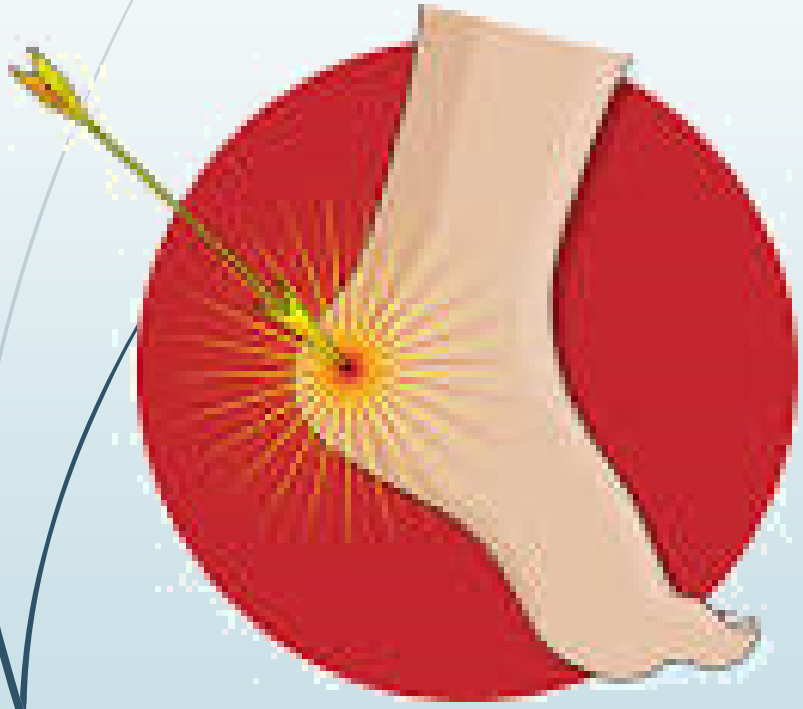
To pursue a specialization in librarianship, the student takes the required core courses and any others available that are related to the specialization choice. For health sciences librarianship, MLA tracks the library science programs that offer such courses at www.mlanet.org/education/libschools/.

students with experiences that put theory into practice and test their understanding of the course instruction. Supervised by practicing librarians and in collaboration with the student's faculty adviser, internships can enhance the student's overall experience of what it means to be a librarian and to practice the profession. Often, students will be brought into a library situation to assist on a project or tackle a defined project under the supervision of a library director, department head, or some other supervising librarian. Students should expect to be told the goals of the

Shedlock, J. (2014). Education for health sciences librarianship. IN. S.M. Wood. Health Sciences Librarianship. Rowman & Littlefield.


KNOWLEDGE DOMAINS
Health Systems
Patient/consumer perspective
Canadian healthcare system in general
Biomedical & clinical processes
HI Processes
Systems analysis and integration
Project management
Management and organizational systems
Knowledge management
Human factors and human computer interface
HI systems, applications and tools (eHealth, EHR, mHealth, etc.)
Health information management
Change management
ICT
Standards
Information systems
Development & architecture
Data and security
Computer programming and software engineering
Research
Methods & processes
Epidemiology, statistics & analysis
Pedagogy
Thesis
Seminars
Professional development
Problem based learning
Electives
Co-op, internship, practicum, field placement
Colloquia
Advanced learning

Health Librarianship: Challenges

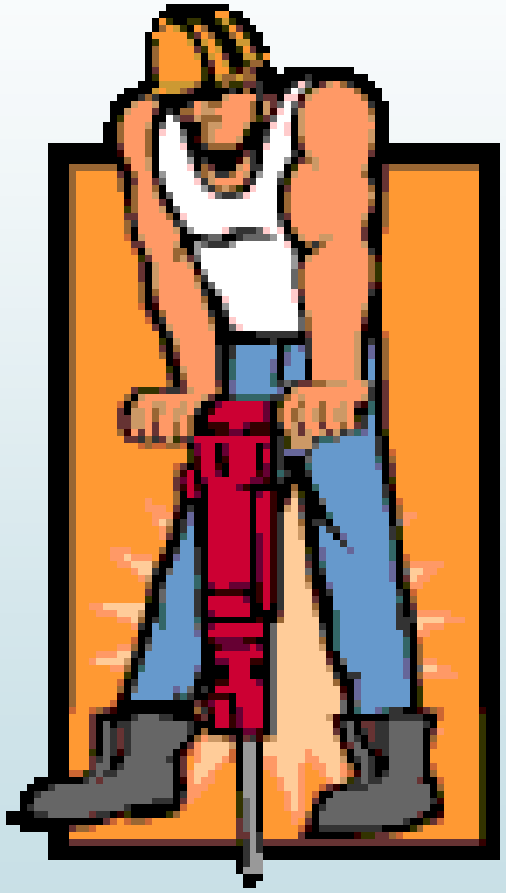


- Assume rather then engage for deep understanding of needs
- Isolation is a problem
- Accountability: Decreasing service trends, Oversubscription
- Self-awareness: Research-weak?

Health Informatics: Challenges

(75-95% health IT project failure

- Too large a gap between design and reality
- Too little user engagement
- Too tool focused – system-driven vs. user-centred
- Users don't buy in to the benefits of change and/or costs of not changing
- Too many things must change to for the technology to work
- Notion that "the system will do it all"



Conclusions: Health informatics and Health Librarianship

Different, equal, complimentary but not on a natural course for convergence without focused effort, e.g.

- PhD in health informatics rather than completing a second masters degree
- Education and certification through professional HI association e.g. COACH
- Program combining research methods courses, self-study, user engagement and mindset change *(uncertain about this)*

Part 2 - Library-based Research

A sample of 2003-2013 studies and service expansion areas

Michelynn McKnight

Front line Nurses, 2003: Information Practices and Preferences

Study participants: 125 med-surg nurses, 4 days (day shift only)

Method: Ethnographic Observation

Results:

- Nurses are too busy to read multiple journal articles to inform patient decisions
- Most needs not met by research (community supports, patient ed info)
- Need education to maintain competencies but
  - Release for education is expensive (2x)
  - Willing to engage in interactive study on the night shift

Service Expansion: E-learning Design and Learning Management System Administration & Management

Transferable skills:

- Knowledge translation
- Records and Information Management

Additional education:

- E-learning instructional design (e.g. six university credits)

2005: Informing Critical Incidents Decisions

Study participants: 21 managers, 1 district

Method: Critical incident interviews

Results:

- Dynamic environments, multiple simultaneous and conflicting priorities
- Complex, multi-level and unstructured critical decisions
- Information sharing dominant information behaviour
- Journal articles, research rarely consulted.

Outcome: immediate further study

2005-2006: 360° Corporate Information Audit

Study participants: 25 leaders, three districts

Method: Critical incident interviews

Results:

- Information management problems (e.g. policies, e-mail, forms, can't find anything in shared folders)
- Meetings problems – inefficient, poor records, scheduling and cancelling
- Information/computer skills problems - better coordinated training (and lack of equity in access)
- Work transaction tracking problems (no records of what we do)
- "Knowing who-knows-what" problems – assessing expertise, appraising information shared orally.

Outcome: Deeper study in thirteen areas … with ± *success*

Front line Clinicians, 2005-2013 Patient Education Information Management

Study participants: 400+ nurses plus other clinicians, 10 health centres

Methods:

- Audits, questionnaires, jurisdictional review

Results:

- Local context is important, but creating content is resource intensive
- Literacy and motivation to comply are more problematic than brochures
- Patient safety issue: congruency with policies, practice guidelines.

Outcome: Recommendation to use Micromedex CareNotes, 2012 Accreditation Canada leading practice.

2005-2014: Service Level Health Policy

Study participants: policy creators, policy users, managers, policy committee members

Methods: interviews, questionnaires, documentary analysis, observation, service log analysis.

Results:

- These "go-to" documents blend research with local context
- Resource intensive – expensive
- Writing and language problems are pervasive
- New policies introduced with minimal communication, education
- Roles and responsibilities for revision, monitoring, evaluation are unclear.

Service Expansion: Health Policy Support and Management

Transferable skills:

- Negotiating and advocacy
- Language and taxonomies
- Metadata
- Records and information management
- Systematic searching
- Document creation, knowledge translation, business writing and plain language
- Copyright compliance
- Evidence based practice
- Referencing

Service Expansion: Forms Design and Management

Transferable skills:

- Records and information management
- Framing answerable questions
- Database design (field standardization, information systems)
- Language and taxonomies

Additional education:

- Forms design and management (e.g. Business Forms Management Association = 1 university credit)

Service Expansion: Evaluations and Audits

Transferable Skills

- Evidence based practice
- Systematic searching, environmental scanning, jurisdictional reviews
- Communication skills including business writing

Additional education:

- Understanding of quality improvement (e.g. IHI *Building a Quality Measurement System That Works*)
- Research methods refresher to conduct audits and evaluations

Service Expansion: Systematic information gathering via Surveys (Questionnaires and Interviews)

Transferable skills:

- Framing answerable questions
- Business writing

Additional education:

- Basic research methods refresher*
- Qualitative research methods*
- Quantitative research methods*
- Survey software knowledge

*post graduate level term course

Conclusions and Implications

- Health librarians' skills are still unique, extremely transferable and needed to fill gaps
- System wide thinking is crucial
- Timing is important
- Service delivery model(s) less clear
- More questions than answers …


Questions?