46th Advisory Committee on Health Research of the Pan American Health Organization (ACHR)

28-30
NOVEMBER 2016
PAHO/WHO HEADQUARTERS
WASHINGTON, DC

Tuesday, 29 November 2016

PAHO/WHO HEADQUARTERS
WASHINGTON, DC

Objective 3 – *Human* Resources

"To improve competencies of and support for human resources involved in research"

Ana Sanchez, PhD

ana.sanchez@brocku.ca

Brock University

Faculty of Applied Health Sciences

Six interrelated objectives have been established for PAHO's policy on research for health:

1) to promote the generation of relevant, ethical, and quality research,

2) to strengthen research governance and promote the definition of research agendas,

3) to improve competencies of and support for human resources involved in research,

4) to seek efficiencies and enhanced impact and appropriation of research through effective and strategic alliances, collaboration, and the building of public trust and engagement in research,

5) to foster best practices and enhanced standards for research, and

6) to promote the dissemination and utilization of research findings.

Pan American Health Organization (PAHO/WHO)
POLICY ON RESEARCH FOR HEALTH
49th DIRECTING COUNCIL
61st Session of the Regional Committee
CD49/10 (Eng.)
10 July 2009
ORIGINAL: ENGLISH

Research for Health Policy

Objective 3:

Improve competencies of and support for human resources involved in research

POLICY ON RESEARCH FOR HEALTH

Improve competencies of and support for human resources involved in research

28. PAHO considers researchers to be an irreplaceable asset for sustainable development.

All countries need to invest in education, training, recruitment, and retention in both basic and applied sciences, while seeking a balanced gender and ethnic representation and participation in research.

In addition, health professionals, policy makers (in health as well as in other sectors that affect health), the media, and the public need different sets of skills to seek, understand, and interpret research results that can inform their decisions and actions.

29. To achieve this objective, PASB will:

- (a) promote the mainstreaming of human resources working in research for health and the integration of global and regional policies, strategies, and plans of action for human resources in health;

- (b) strengthen the capability of its staff to use scientific knowledge and systematic reviews of the literature when they develop technical cooperation and address uncertainties in the face of insufficient research evidence;

29. To achieve this objective, PASB will:

(c) work with partners, including but not limited to, health, science and technology, education, development, and legal sectors, and research institutions, to enrich the health sciences curricula; improve competencies in research, monitoring, and evaluation; and engage in capacity building activities to increase health professionals' capability to understand and use research results and to engage other sectors that influence health care, health systems, and health governance;

(d) Assist Member States to evaluate their current and future human resource needs to conduct research for health, to help them develop national policies and long-term plans to educate and retain the necessary number of health researchers with the required skills and capacities, and find constructive approaches that engage expatriate researchers;

Pan American Health Organization (PAHO/WHO)

POLICY ON RESEARCH FOR HEALTH

49th DIRECTING COUNCIL
61st Session of the Regional Committee

29. To achieve this objective, PASB will:

(e) help Member States address, through appropriate research and development of strategic incentives, the factors that determine migration and alienation of researchers to promote the development, retention and thriving of productive research groups;

(f) cooperate with Member States to promote gender equity in the composition of research groups and research management structures, and to develop ways to support increasing the number of researchers from under-represented ethnic groups; and

29. To achieve this objective, PASB will:

(g) support the development of the structures, methods and directives that promote and maintain systematic evidence-informed approaches in the evaluation and selection of health technologies.

Pan American Health Organization (PAHO/WHO)

POLICY ON RESEARCH FOR HEALTH

49th DIRECTING COUNCIL
61st Session of the Regional Committee

CD49/10 (Eng.)
10 July 2009
ORIGINAL ENGLISH

"Research for health"

- The term reflects:
  - the purpose of research and
  - the fact that improving health outcomes requires the involvement of many sectors and disciplines, <u>including</u> those that participate and are expected to benefit from research.

49th DIRECTING COUNCIL
61st Session of the Regional Committee
CD49/10 (Eng.)

The Sustainable Development Goals

Human Resources to meet SDGs

Global Strategy on Human Resources for Health: **Workforce 2030**

DRAFT **for consultation**

World Health Organization

The strategy addresses

- Training
- Availability
- Accessibility
- Quality

of the health workforce

Health workforce doing/understanding research

Health professionals should be required to have working knowledge and silks on:

- Research methods, design, bias identification and minimization
- Critical assessment of research relevant to clinical practice
- Test for these skills in licensing examinations
- Expectations for continued professional development, reflective practice, and validation of research skills

- Valuable for research clinicians/nurses but also as part of professional skills

- *Source: John P A Ioannidis et al 2014; used under Fair Use Copyright Policy*

Having capable and enough health workforce requires large investments, considerable operational research and strengthening of educational institutions and educators/trainers

Is there a strategy on for Research Workforce?

Do we need another SDG?

18 RESEARCH FOR HEALTH

Search for 'research' or 'human resources'

Looking For:

Research in the current document

Results:

1 document(s) with 4 instance(s)

Looking For:
   human resoruces in the current document

Results:
   0 document(s) with 0 instance(s)

New Search

Results:

F:\H...\UNDP_MDGs-to-SDGs_5.pdf

Goals. **Research** suggests the importance of clear administrative and management arrangements to China's development

Chengdu **Research** Base of Giant Panda Breeding in China to support the SDGs, inspect

global/**research/**global-reports/ weso/2015/lang--en/index.htm. 10 UNDP, Humanity Divided:

Policy **Research** working paper, no. WPS 6282, World Bank, Washington D C, 2012. Available

United Nations Development Programme

FROM THE MDGs TO SUSTAINABLE DEVELOPMENT FOR ALL
LESSONS FROM 15 YEARS OF PRACTICE

UNDP
Empowered lives.
Resilient nations.

Page 34

Search for 'research' or 'human resources'

Looking For:
Research in the current document

Results:
1 document(s) with 15 instance(s)

New Search

Looking For:
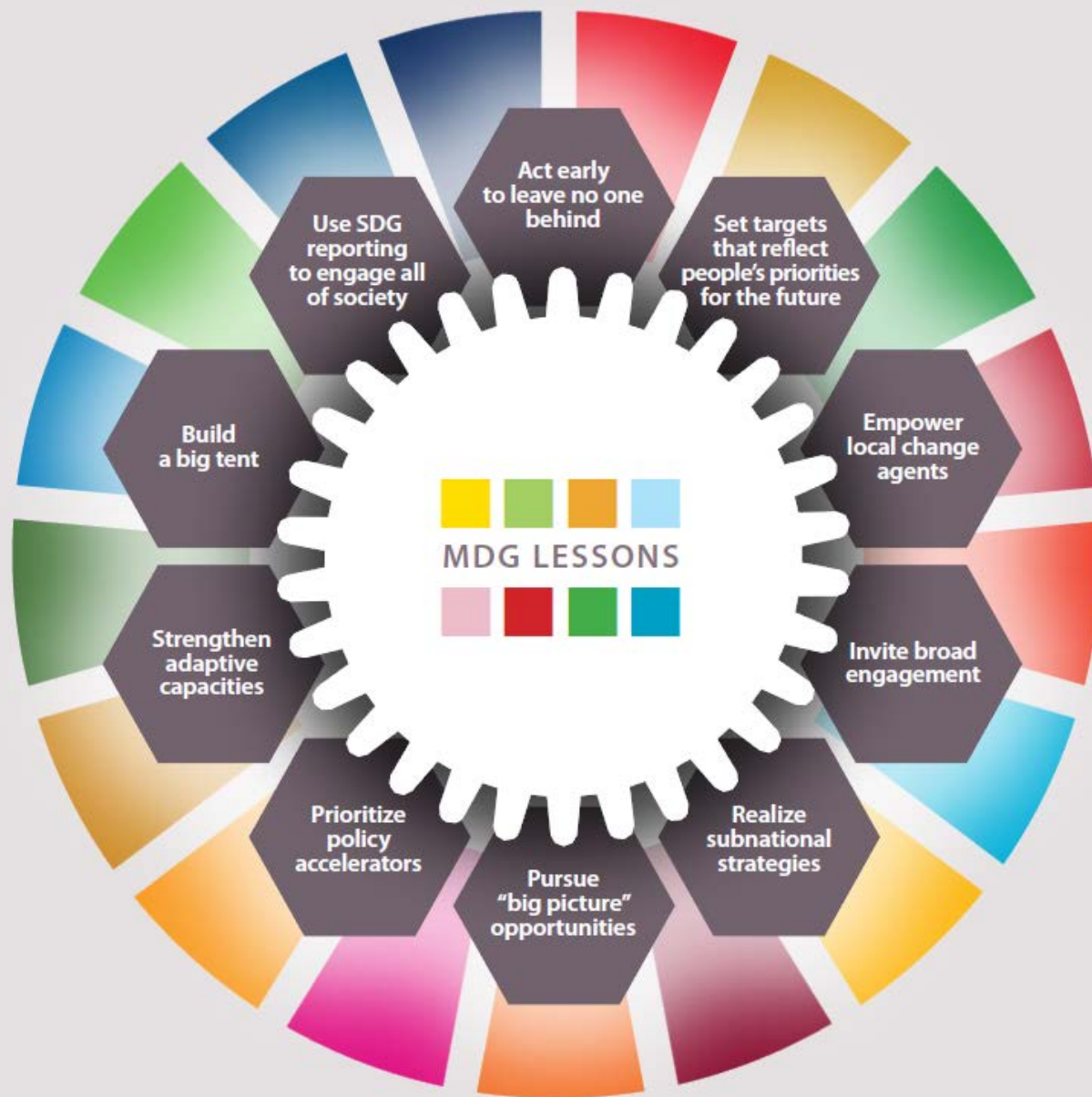**human resoruces in the current document**

Results:
0 document(s) with 0 instance(s)

Results:

F:\Human Resources for Health\Meeting 2016\Transitioning from the MDGs to the SDGs.pdf

- Policy **Research** Working Paper 6719.Although many of the MDG targets were not met
- national **research** institution is providing third-party monitoring, focusing on verification of cash distribution
- and **research,** through supervision based on quality standards, staff training, education as well as
- operational **research** for decision making processes; and (f) establishing systems for monitoring and
- applied **research** on supply service and demand, with specific actions intended to ensure service
- operational **research.** 85 TRANSITIONING FROM THE MDGs
- and **research** provided by UNICEF, WHO, UNFPA and UNAIDS. • With technical and funding
- Health **Research** and Development, has been a part of the national health sector review
- Conduct **research** and generate and synthesize evidence and data to design key interventions in
- Operational **research** on male involvement in FP, promotion of shared responsibility in child care
- communication **research** on community behaviors on MNCHN services, FP demand generation through Family Development
- a **research** and impact evaluation component; and (iv) an investment component to provide
- **Research** shows that HIV and NCDs have many things in common: both are
- Agricultural **Research,** the Pacific Islands Farmer Organisations Network and the Pacific Organic and Ethical
- a **research** and impact evaluation component; and (4) an investment component to provide

FIGURE ES1: RECOMMENDATIONS FOR SDG IMPLEMENTATION

3. Empower local change agents

Advocates and facilitators of SDG implementation should seek to identify and equip **local change agents with the know-how they need** to leverage the SDGs.

6. Pursue "big picture" opportunities

The SDGs are **"integrated and indivisible"** The success of one leads to the success of others.

A country's ability to combat hunger... is directly linked to its infrastructure, land-tenure, healthcare and capacity to manage natural resources and mitigate disasters.

9. Build a big tent

Solutions to real-life problems generally lie **outside the boundaries** of individual ministries, tightly focused initiatives or disciplines.

Global Goals can be a powerful way to rally and convince diverse actors to **work together** to solve problems they care about.

What is needed in terms of Human Resources for Research for Health to advance and meet the SDGs?

Trends

- Global Health versus Public Health
- Global infectious disease emergencies / pandemics/ antimicrobial resistance
- Growing burden of non-communicable diseases
- Conflicts and displaced populations
- Increasing inequalities

Global health is public health

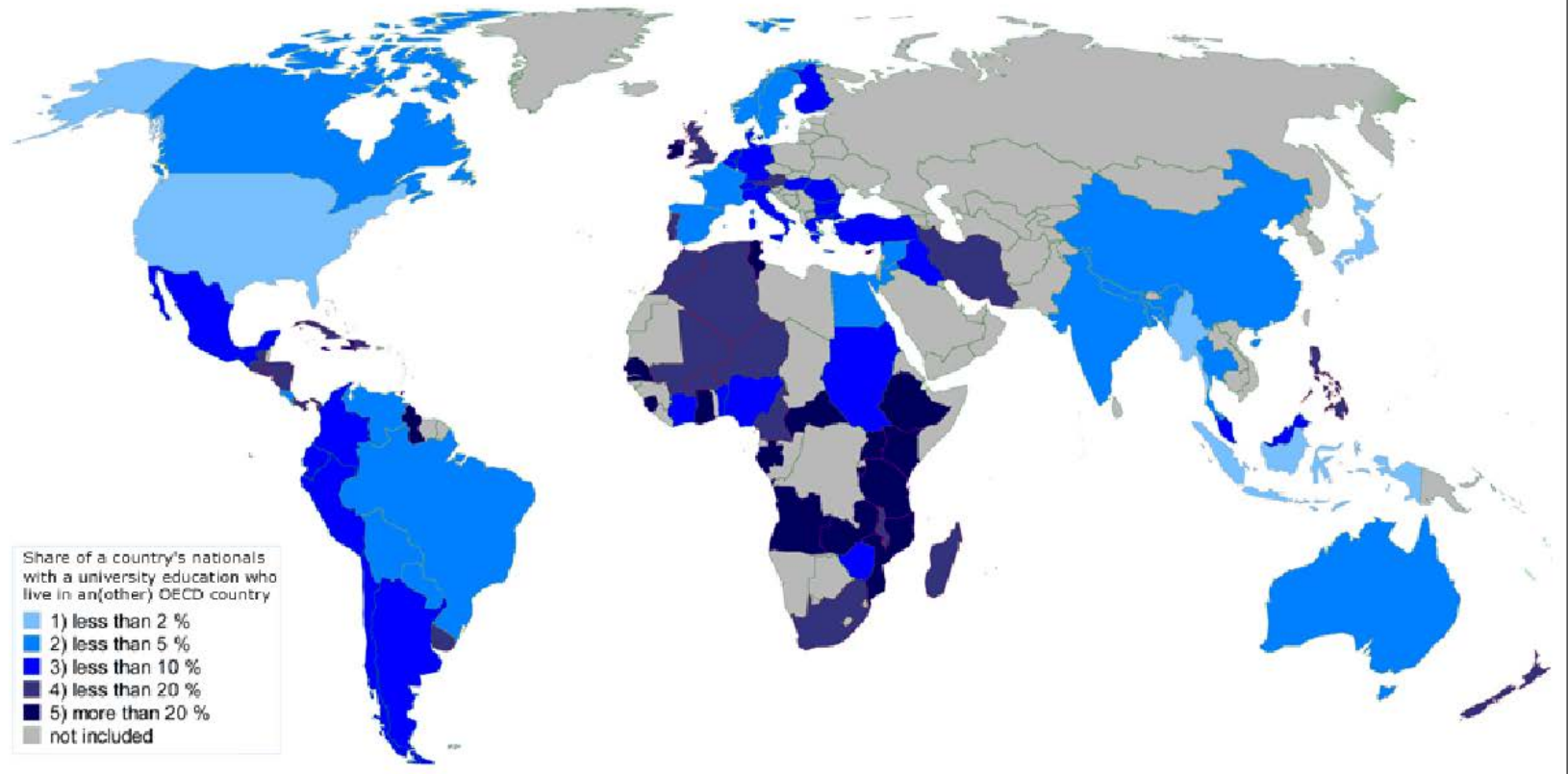Linda P Fried, Margaret E Bentley, Pierre Buekens, Donald S Burke, Julio J Frenk, Michael J Klag, Harrison C Spencer

Published: 13 February 2010

Trends

- Climate change
- Transdisciplinarity
- Discovery, innovation, public–private partnerships
- Team work / collaborative initiatives
- One Health
- Better understanding of human and social capital

Trends

Brain circulation/exchange and brain drain

http://www.oecd.org/dev/poverty/migrationandthebraindrainphenomenon.htm

Trends

- International collective action
- Research transparency, accountability, equity
- Networks
- Open access
- Open science
- Big data

Trends

- Empowerment of patients, research users, etc., better information

- Citizen research

- Crowd-sourcing ideas – wisdom of the crowd

Skill sets

Beyond discipline-oriented education and methodological training, research competencies must now include

- Inter-professional education
- Effective science communication
- Research governance
- Stewardship and administration
- Leadership
- Entrepreneurship
- Knowledge of national and global policies and strategies
- Experiential learning

Competencies for Public Health, Global Health Practice and Research

Table 1. Competencies for Public Health, Global Health Practice and Research

Core Competencies for Public Health Practice*	Our Proposed Complementary Competencies		
	Global Health Practice†	**Public Health Research†**	**Global Health Research†**
Category 1: Public Health Sciences 1.2 Demonstrate knowledge about the history, structure and interaction of public health and health care services at local, provincial/ territorial, national and international levels.	Demonstrate knowledge of: GH.1 historical and present north-south power dynamics; social and political contexts and determinants of health. GH.2 linkages between local and global health problems. GH.3 international organizations, their interactions and their effects on local actions for health.		R.1 Demonstrate knowledge of the ways research has been historically funded, generated and used in different contexts and levels of the public health and the health care systems.
Category 2: Assessment and Analysis 2.3 Collect, store, retrieve and use accurate and appropriate information on public health issues. 2.4 Analyze information to determine appropriate implications, uses, gaps and limitations.			R.2 Critically analyze, synthesize and manage available knowledge. R.3 Identify 'actionable determinants' or entry points for research to action.
Category 3: Policy and Program Planning, Implementation and Evaluation 3.3 Develop a plan to implement a course of action taking into account relevant evidence, legislation, emergency planning procedures, regulations and policies. 3.6 Evaluate an action, policy or program.	GH.4 Work effectively and responsibly in low-resource settings to promote sustainable interventions for global health.		R.4 Engage community members in research planning within a framework of trust and respect. R.5 Demonstrate proficiency in the use of evaluation research methods.

Cole et at 2011.

Competencies for Public Health, Global Health Practice and Research

Category 4: Partnerships, Collaboration and Advocacy
4.1 Identify and collaborate with partners in addressing public health issues.
4.2 Use skills such as team building, negotiation, conflict management and group facilitation to build partnerships.
4.4 Advocate for healthy public policies and services that promote and protect the health and well-being of communities.

GH.5 Foster self-determination, empowerment and community participation in GH contexts.
GH.6 Actively recognize the interaction between political and economic history, power, participation and engagement globally.
GH.7 Contribute to improving health equity at multiple levels, through systems changes.

R.6 Produce knowledge relevant to users through well-managed, ethically informed research.
R.7 Identify and collaborate with researchers from different disciplines and partners from different cultures.
R.8 Use research as an advocacy tool; recognizing the appropriateness of different strategies in particular situations.
R.9 Use knowledge exchange mechanisms in community action, program management and policy-making.

Category 5: Diversity and Inclusiveness
5.3 Apply culturally-relevant and appropriate approaches with people from diverse cultural, socio-economic and educational backgrounds, and persons of all ages, genders, health status, sexual orientation and abilities.

GH.8 Critically self-reflect upon one's own social location and appropriately respond to others in their diverse locations.

GHR.1 Respect cultural diversity and values as they relate to global health research and interventions.

GH.9 Communicate effectively across disciplines and cultures.
GH.10 Demonstrate commitment to global equity, social justice, and sustainable development.

Cole et at 2011

Competencies for Public Health, Global Health Practice and Research

Category 6: Communication
6.3 Mobilize individuals and communities by using appropriate media, community resources and social marketing techniques.

Category 7: Leadership
7.4 Contribute to team and organizational learning in order to advance public health goals.
7.6 Demonstrate an ability to build community capacity by sharing knowledge, tools, expertise and experience.

GH.11 Create social spaces for dialogue between stakeholders across jurisdictions.

GH.12 Demonstrate willingness to be mentored across borders.
GH.13 Mentor others and develop long-term relationships of trust locally and globally.
GH.14 Educate oneself about global health issues on an ongoing basis.

GHR.2 Work in transnational teams with a broad understanding of health research.

---

* We have included competencies within the seven CCPHC categories that we felt were relevant to global health (www.phac.aspc.gc.ca/core_competencies).
† These additional and complementary competencies were developed with participants at a pre-conference workshop at the 2010 annual conference of the Canadian Public Health Association.

Cole et at 2011

Include research users

- Increasingly, those *"who are expected to benefit from research"* are becoming involved in moving forward the health of their communities by engaging in research at the community level

Reduce waste in research

Researchers must make efforts in reducing waste in research; need to be better trained in

- Research design methods

- Research synthesis methods
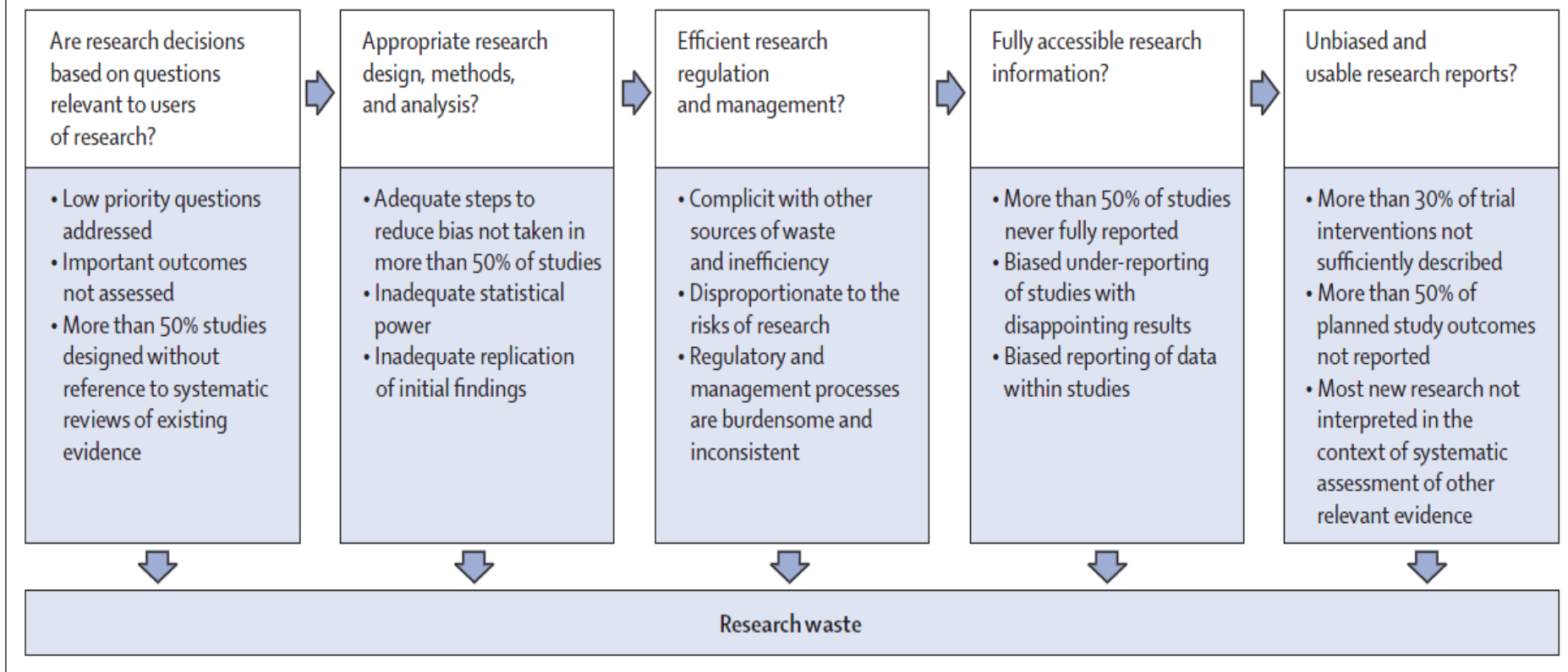
- Transparency, data sharing, etc.

Figure: Avoidable waste or inefficiency in biomedical research

Source: Ioannidis et al 2014; used under Fair Use Copyright Policy

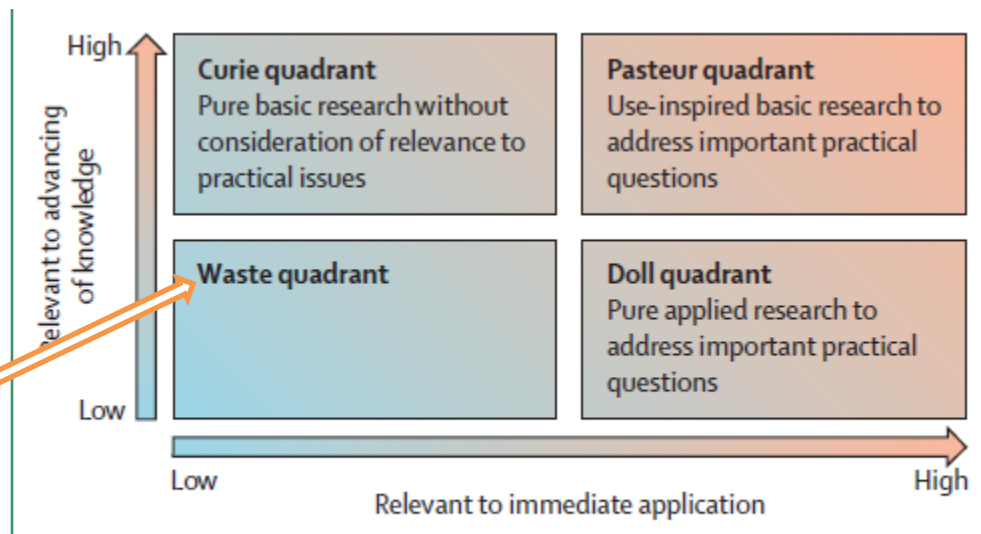Research that contribute nothing or very little to knowledge or to practice and policy

Figure 1: Classification of different categories of research

	Pure basic research		Pure applied research		Use-led basic research	
	2004–05	2009–10	2004–05	2009–10	2004–05	2009–10
Proportion of funds allocated	68·3%	59·4%	21·2%	27·2%	10·7%	13·3%

Percentages calculated with data from UK health research analysis 2009/2010.[7] Pure basic research is concerned with understanding of biological, psychological, and socioeconomic processes and functioning (underpinning research), and aetiology. Pure applied research is concerned with prevention, detection and diagnosis (but not the discovery and preclinical testing of markers and technologies), treatment assessment, disease management, and health services. Use-led basic research is concerned with development of detection, diagnosis, and treatment (including the discovery, development, and preclinical testing of biological markers, imaging technologies, and diagnostic and predictive tests).
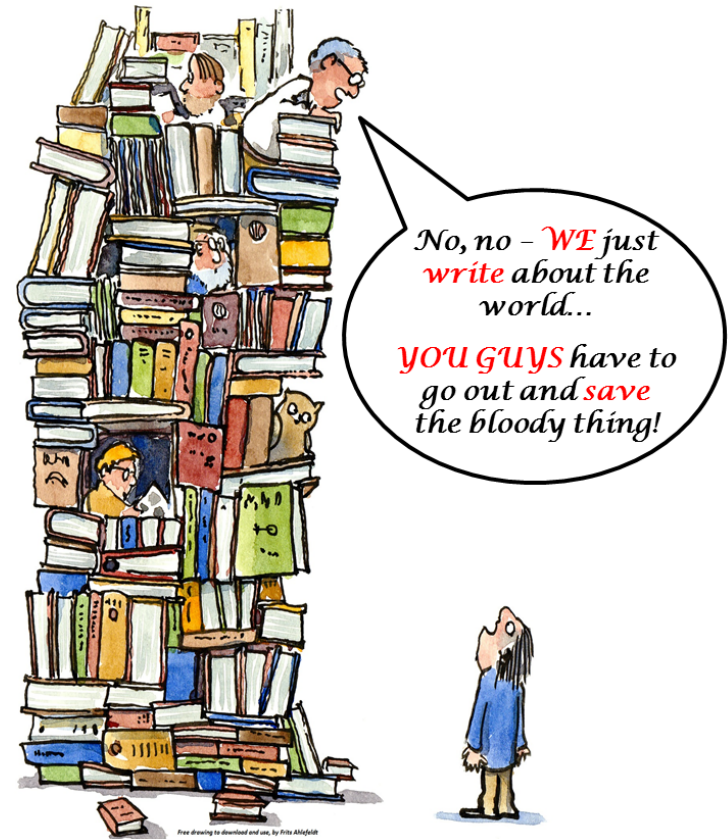
Table 1: Distribution of public and charitable funds for medical research in 2004–05 and 2009–10, by category of investment

Changing metrics in Academia (really)

In addition to scientific publishing and citation metrics, researchers' impact in society can be measured in terms of

– knowledge development and diffusion (knowledge brokers)
– providing expertise
– overall contribution to social capital development

[Jacobson et al 2014]

https://christinescottcheng.files.wordpress.com/2014/02/ivory-tower-tg-version.png

Brain sharing

References

1.PAHO. PAHO Policy on Research for Health. 2013.

2.Chu KM, Jayaraman S, Kyamanywa P, Ntakiyiruta G. Building research capacity in Africa: equity and global health collaborations. PLoS medicine. 2014;11(3):e1001612.

3.Klein JT, Newell WH. Advancing interdisciplinary studies. In: J. G. Gaff JLR, & Ratcliff & Associates (Eds.), (pp. 393–415). , editor. Handbook of the undergraduate curriculum: A comprehensive guide to purposes, structures, practices, and change. San Francisco, CA.: Jossey-Bass; 1997.

4.Schneider H, Okello D, Lehmann U. The global pendulum swing towards community health workers in low- and middle-income countries: a scoping review of trends, geographical distribution and programmatic orientations, 2005 to 2014. Human resources for health. 2016;14(1):65.

5.Balabanova D, Mills A, Conteh L, Akkazieva B, Banteyerga H, Dash U, et al. Good Health at Low Cost 25 years on: lessons for the future of health systems strengthening. The Lancet.381(9883):2118-33.

6.Moreno E, Gutierrez JM, Chaves-Olarte E. The struggle of neglected scientific groups: ten years of NeTropica efforts to promote research in tropical diseases in Central America. PLoS Negl Trop Dis. 2011;5(7):e1055

7.Curtis-Robles R, Wozniak EJ, Auckland LD, Hamer GL, Hamer SA. Combining Public Health Education and Disease Ecology Research: Using Citizen Science to Assess Chagas Disease Entomological Risk in Texas. PLoS Negl Trop Dis. 2015;9(12):e0004235.

8.Hashimoto K, Zuniga C, Nakamura J, Hanada K. Integrating an infectious disease programme into the primary health care service: a retrospective analysis of Chagas disease community-based surveillance in Honduras. BMC health services research. 2015;15:116.

9.Sanchez AL, Canales M, Enriquez L, Zelaya AA, Espinoza VE, Fontecha GA. Research capacity strengthening in Honduras. The Lancet Global health. 2013;1(2):e75.

10.Sanchez AL, Canales M, Enriquez L, Bottazzi ME, Zelaya AA, Espinoza VE, et al. A research capacity strengthening project for infectious diseases in Honduras: experience and lessons learned. Global health action. 2013;6:21643.

11.Sinclair J, Barnacle R, Cuthbert D. How the doctorate contributes to the formation of active researchers: What the research tells us. Studies in Higher Education. 2014;39(10):1972-86.

12.Badenhorst A, Mansoori P, Chan KY. Assessing global, regional, national and sub-national capacity for public health research: a bibliometric analysis of the Web of Science(TM) in 1996-2010. Journal of global health. 2016;6(1):010504.

13.Jacobsson S, Vico EP, Hellsmark H. The many ways of academic researchers: How is science made useful? Science and Public Policy. 2014:sct088.

14.Kretschmer T. Gender bias and explanation models for the phenomenon of women's discriminations in research careers. Scientometrics. 2013;97(1):25-36.

15.Hofman K, Kramer B. Human resources for research: building bridges through the Diaspora. Global health action. 2015;8:29559.

16.Cole DC, Davison C, Hanson L, Jackson SF, Page A, Lencuch R, et al. Being Global in Public Health Practice and Research: Complementary Competencies Are Needed. Can J Public Health. 2011;102(5):394-97.

17.Macleod MR, Michie S, Roberts I, Dirnagl U, Chalmers I, Ioannidis JP, et al. Biomedical research: increasing value, reducing waste. Lancet. 2014;383(9912):101-4.