Lessons From The Field

On 24 October 2018, our e-Health platform celebrates its 16th anniversary. We @ WHEC thank you, and welcome you again, for embarking on this journey with us. Launched in partnership with the United Nations (UN) on 24 October 2002, we are proudly serving in 227 countries and territories, about 14-15 million subscribers, every year. Its popularity is growing fast with US Educational systems and other countries systems.  [http://www.WomensHealthSection.com](http://www.WomensHealthSection.com) … knowledge that touches patients; is a vision for the globalized world. The use of information science and telecommunications to support the practice of medicine when distance separates the caregiver from the patient, is the way forward to make healthcare more affordable and more accessible, in both industrialized and developing countries.

We plan development together. Believe in yourself, even if the road is rough ahead.

Over the last decade, there has been growing enthusiasm for data analytics as well as growing appreciation of the potential usefulness of so-called big data in transforming personal care, clinical care and public health, and related research. New opportunities are being opened by the continuing expansion of the possible uses, sources and types of big data. Big data requires, big servers and big networks.

Both the public and private health sectors are investing in the technologies and analytical capabilities needed to unlock the full value of big data. For governments that are interested in using such data, a natural starting is to link national health-care data sets, to facilitate in-depth analysis of electronic health records may greatly expand the capacity to generate new knowledge by creating an observational evidence base to help resolve clinical questions. Analysis of big data is already proving critical in building accurate models of disease progression and providing personalized medicine in clinical practice. It has also facilitated the evaluation of the impact of health policies and improved the efficiency of clinical trials.

By encouraging patients to participate in their own care, delivering personalized information and integrating medicine with behavioral determinants of health, the integration of electronic health records with personal data from other sources, e.g. medical devices, wearable devices, sensors and tools based on virtual reality, could also be very beneficial. The value of health research based on non-traditional data streams from internet-based applications, platforms, e.g. social media and services, e.g. e-mail and online purchasing, has already been demonstrated. For example, Zika virus outbreak in 2015, analyses of reports in the outline media helped to supplement existing information, close knowledge gaps and allow researchers to estimate transformation dynamics and plan response measures that extended beyond vector suppression.

Big data ecosystem is an evolving health-related big data and its continuing expansion of the possible uses, sources and types of big data is a new opportunity. [Create an account](http://www.womenshealthsection.com/content/cme/WHEC_Global_Health_Line.pdf) on WHEC Global Health Line (WGHL):  [http://www.womenshealthsection.com/content/cme/WHEC_Global_Health_Line.pdf](http://www.womenshealthsection.com/content/cme/WHEC_Global_Health_Line.pdf)

Artificial Intelligence (AI) is a fast-emerging area of Information Technology (IT) in healthcare. Increasingly massive data collections are being used for both clinical improvement and population health advances. Most clinicians have only a passing knowledge of the implications of this group of technologies beyond the buzz words. We hope, this edition of *WHEC Update* provide a primer on AI and provide some examples of current uses as well as a projection for implication for future research and development, to benefit low- and middle-income countries too.

Artificial Intelligence & Practice of Medicine

*Rita Luthra, MD*
Is Artificial Intelligence (AI) good enough for future clinical practice? What is big data ecosystem?

**Big Data, Health Sector and Policy Implications:** Despite increasing awareness of the benefits of big data and the related methodological and technological advances that are being made, many countries appear to be slow in adopting approaches based on such data. The reasons may include gaps in funding, leadership and technical expertise and competing priorities within the health system. Many governments are still considering appropriate policy option.

Any government that adopts big data methods and technologies in the health sector will need to establish proactive and durable policies to protect the health data of individuals, i.e. in terms of confidentiality, privacy and security, tackle the probable pressure for the commercialization of the data and promote the interoperability and use of the data for the public good. We believe, that the focus should be on three priority areas: access and benefit sharing; accountability and transparency; quality and safety.

**Evolving health data ecosystem**

Globally, the evolution of the health data ecosystem within and between countries offer new opportunities for health care practice, research and discovery. There are new stakeholders and new capabilities as technologies, analytic methods and policy change and adapt in order to realize the potential of big data in health. This environment opens new possibilities and challenges and requires innovative responses across the spectrum.

Expanding sources of data: Beyond traditional sources of data generated from health care and public health activities, we now have the ability to capture data for health through sensors, wearables and monitors of all kinds.

Growing capabilities: New analytical methods allow us to link to other, dissimilar data such as environmental, geospatial, life style and behavior data. New technological capabilities allow generation, storage and exploitation of data across many aspects of human health.

Changes in health data ecosystem are also reflected in the emergence of new stakeholders. As traditional stakeholders adapt to the changing environment, they are working in new configurations and mastering new skills.

Elements of a new ethical framework for big data research: Emerging large-scale data sources hold tremendous potential for new scientific research into human biology, behaviors, and relationships. At the same time, big data research presents privacy and ethical challenges that the current regulatory framework is ill-suited to address. In light of the immense value of large-scale research data, the central question moving forward is not whether such data should be made available for research, but rather how the benefits can be captured in a way that respects fundamental principles of ethics and privacy.

We suggest, a framework that is well-suited to the distinct and evolving features of big data research will achieve more appropriate privacy protection, enable greater harmonization of oversight across types of big data research, and facilitate the conduct of ethical research. Such a framework can catalyze big data utilization and help harness the tremendous value of big data in a sustainable and trust-building manner.

Data, Data, Everywhere
Gambia, official the Republic of the Gambia, is country in West Africa that is entirely surrounded by Senegal except for its coastline on the Atlantic Ocean at its western end. It is the smallest country on mainland Africa.

The Gambia is situated on either side of the Gambia River, the nation’s namesake, which flows through the center of the Gambia and empties into the Atlantic Ocean. Its area is 10,689 square kilometers (4,127 sq. mi.) with a population of 1,857,181 as of the April 2016 census. Banjul is the Gambian capital and the largest cities are Serekunda and Brikama.

The Gambia shares historical roots with many other West African nations in the slave trade, which was the key factor in the placing and keeping of a colony on the Gambia River, first by the Portuguese, during which era it was known as A Gâmbia. Later, on 25 May 1765, the Gambia was made a part of the British Empire when the government formally assumed control, was made a part of the British Empire when the government formally assumed control, established the Province of Senegambia. The Gambia achieved independence on 18 February 1965, as a constitutional monarchy within the Commonwealth, with Elizabeth II as Queen of Gambia, represented by the Governor-General. Shortly thereafter, the national government held a referendum proposing that the country become a republic. On 24 April 1970, the Gambia became a republic within the Commonwealth, following a second referendum.

The Gambia’s economy is dominated by farming, fishing and especially tourism. About third of the population lives below the international poverty line of US $1.25 per day.

Macro-Economic Policy Questions: international financial system and external debt crisis and development. Statement by Mr. Habib T. B. Jarra, Deputy Permanent Representative, to General Assembly:

“One of the highly debated irregularities of the 21st Century is the undemocratic and unfair global architecture in which both the participation and influence of developing countries are extremely marginal despite the fact that decisions taken by this global system have significant implications for the growth and development of developing countries. In order to have a fair treatment, we the underprivileged, must continue to call for an all-inclusive reform of the international financial system and its governance architecture. The reform in this respect should clearly recognize and address the purpose for which the international financial institutions such as the International Monetary Fund and the World Bank were established.

The efforts of developing countries to maintain debt sustainability would also be greatly facilitated by improved market access for their exports and other measures to enhance their productive capacity without which, growth and sustainable development cannot be attained. In this connection, my delegation has the honor to reecho the call for the United Nations to play a fundamental role in an effective and efficient manner, in the promotion of international cooperation and implementation of the internationally agreed development goals, including the Millennium Development Goals, and actions agreed upon by the International Community. Besides, the UN ought to be brought back into the business of laying down the international cooperative framework for economic policy and development. Therefore, the UN must be supported to be the leading global economic development governance institution as well as the overall global financial oversight authority.”

Details: [https://www.un.int/gambia/](https://www.un.int/gambia/)
Collaboration with World Health Organization (WHO)

WHO | Gambia

The Gambia is located in West Africa and has a surface area of 10,690 sq. km. It forms a narrow enclave into the Republic of Senegal, with the Atlantic Ocean its western boundary. The country is divided into five administrative regions (Western, Lower River, Central River, Upper River and North Bank) and two municipalities (Banjul and Kanifing).

Health Profile

The leading causes of morbidity in children are malaria, acute respiratory infections, diarrheal diseases, helminthic infections and skin disorders. In adults, malaria, respiratory conditions, skin disorders, cardiovascular diseases (including hypertension), diabetes, cancers and trauma are the common diseases/conditions. Inaccessible and inadequate maternal health care services are responsible for increased maternal morbidity and mortality. These health conditions are responsible for over 75% of outpatient and in-patient care delivered through the government’s health care system.

The leading causes of in-patient deaths in children are malaria, pneumonia, malnutrition, anemia, neonatal sepsis, premature birth, gastroenteritis, septicemia and meningitis. In adults, the leading causes of in-patient deaths are maternal deaths, pneumonia, cerebrovascular accidents, trauma (especially following road traffic injuries), malaria, hypertension, anemia, diabetes, heart failure and cancer.

Natural disasters, such as floods and droughts, do occur in the Gambia. In addition, there have been epidemics of diseases such as yellow fever, meningitis and cholera. Cancer, and especially liver cancer, is secondary to hepatitis B infection whose prevalence in the Gambia is estimated at 90%, with a chronic carrier of 15%.

Health Care Delivery System

The government is the major provider of health services in the Gambia. The public health care system has three tiers, based on the primary health care strategy. Presently, services are provided by four hospitals at the tertiary level, 38 health centers at the secondary level and 492 health posts at the primary levels. The system is complemented by 34 private and NGO clinics. For most communities, the first point of contact with health care services is the informal sector through traditional healers.

In the Gambia the majority of health facilities and personnel are located in urban areas, resulting in inequitable access to care. There are also disparities among regions, with the Western Region having most of the resources.

Details: [http://www.who.int/countries/gmb/en/](http://www.who.int/countries/gmb/en/)
Bulletin Board

WHEC Data Protection Policy

The Women’s Health and Education Center (WHEC) has always valued its academic freedom, its international character and its openness, welcoming people from all over the world, giving them the opportunity to think outside the box and try something new, fostering creativity and avoiding placing hurdles in their way. It is this open and free environment that allows us to tackle the riddles of medical challenges, nature, to endeavor and to understand the medical sciences, the universe and its rules, and to advance fundamental research and technology. While such an open academic environment is paramount to the operation of WHEC, it cannot be completely free of rules…

Rules are (maybe?) an annoying but necessary part of running an Organization like WHEC. Rules are imposed on WHEC by the Host States, e.g. for safety, privacy, protection of intellectual property and/or radiation-related matters and are also an essential ingredient in preserving the WHEC’s and its partners’ independence and intellectual property rights. Rules are also enacted by WHEC itself to enable peaceful and friendly coexistence inside the research communities, academic institutions, nongovernmental organizations (NGOs), governments, civil societies and between people.

The WHEC Code of Conduct provides official and “legal” framework for the proper and efficient functioning of our vision and safety precautions. Access Rights and Control, as well as how to deal with fraud are discussed in the Operational Circulars (OCs) and not detrimental to official duties, including those of other users; the frequency and duration is limited and there is negligible use of WHEC resources; it does not constitute a political, commercial and/or profit-making activity; it is not inappropriate or offensive; and it does not violate applicable laws.

Policy Implications of Big Data in the Health Sector

Over the last two decades, there has been growing enthusiasm for data-analytics, as well as growing appreciation of the potential usefulness of so-called big data in transforming personal care, clinical care and public health, and related research. New opportunities are being opened by the continuing expansion of the possible uses, sources and types of big data.

Artificial Intelligence (AI) is a fast-emerging area of Information Technology (IT) in healthcare. Increasingly massive data collections are being used for both clinical improvement and population health advances. Most clinicians have only a passing knowledge of the implications of this group of technologies beyond the buzz words.

Big data requires big servers and big networks – we hope you avail this resource.

To be continued……

United Nations Institute for Training and Research

The idea of a UN training and research institute was mentioned for the first time in a 1962 resolution of the UN General Assembly (resolution 1827 (XVII of 18 December 1962). The founding of UNITAR in 1963 followed the recommendation of the Economic and Social Council to the General Assembly, which commissioned the Secretary-General with the establishment of a United Nations Institute for Training and Research as an autonomous body within the UN system.
The creation of UNITAR occurred at the most opportune time in the history of the UN, coinciding with the addition of 36 States since 1960, including 28 African States. That unprecedented wave of decolonization created a critical need for assistance, as many of the newly-independent States lacked the capacity to train their young diplomats. Shaped by its first four Executive Directors originally from newly-independent African States, the institute’s vision of training was developed in light of the very needs and priorities of recipient countries.

UNITAR commenced functioning in March 1965. The Institute originally has its headquarters based in New York and a European Office in Geneva. In 1993, UNITAR’s headquarters were transferred to Geneva.

The Institute was to become a remarkable instrument for developing countries and countries in transition to access pragmatic solutions, informed by practical research of policy practices, to address emerging management issues in various domains. Over the past decades UNITAR has acquired a unique expertise, accumulating experience, knowledge and capacities to design and implement a variety of training activities.

The small size of the institute and its independence within the United Nations system enable to respond with a high degree of flexibility to new challenges in the area of training and research.

UNITAR | Knowledge to Lead: http://www.unitar.org/

---

**Collaboration with UN University (UNU)**

**UNU-WIDER (World Institute for Development Economics Research)**

**Expert Series on Health Economics**

**African Growth Miracle or Statistical Tragedy?**

Interpreting Trends in Data Over the Past Two Decades

This study reviews the current problems of national accounting in Sub-Saharan Africa. With the current uneven application of methods and availability of data, any ranking of countries according to gross domestic product levels is misleading. It is increasingly acknowledged that the problems associated with national accounts in Africa may have caused growth to be underestimated, and there are concerns that gross domestic product does not capture or cohere with concurrent trends on poverty and wealth from other surveys. It is argued that this varies from country to country, and that in some countries current wealth is underestimated, whereas in others recent growth is overestimated.

What has been described here is a considerable knowledge problem. There are currently serious difficulties in the regular collection of economic statistics. Our current estimates are doubly biased. We know less about the economies that are poorer, and less about the populations that are poor in those poor economies. This knowledge problem is in striking contrast with the demand for numbers in the development community.

What should be done about this? It is critical for data users to question one’s evidence. In the macro analysis of growth and poverty, the distance between the observed and observer has grown since the 1990s, as analysts have increasingly made use of downloadable datasets to test economic models. Data disseminators need to label their data correctly. A great deal of the information that is old as data is indeed only weak guesses and projections. The biggest challenge is investing in better data for the future. A new agenda is needed for developmental data in Sub-Saharan Africa, which places local demand, incentives and applicability at the center.
Gambia: Zeal of communities gets girls into schools

“The world is changing, and even in a small country like ours, things are changing. If we don’t educate our children, we will be left out. It’s becoming clear that in today’s world, without education, we lose” says Fatou Bah, president of Sare Samba Mothers’ Club. This club is one of 90 Mothers’ Clubs in Gambia. They were created by the Gambia Forum for African Women Educationalists and UNICEF, for women who want to ensure their daughters have more opportunities in life than they did.

The clubs are instrumental in Gambia’s drive for universal education and girl-friendly schools. They run income-generating projects to pay for school books, uniforms, shoes and other schooling costs not covered by the government.

In Sare Samba, for example, the women produce soap and resell groundnuts – milled with a machine provided by UNICEF – and grow vegetables for school meals on a plot donated by the community. They also work with Parent-Teachers’ Associations and other groups – such as the young actors – in door-to-door campaigns to convince parents to enroll their daughters in school.

The success is evident: within six months of the first door-to-door campaign, the Sare Samba student population jumped from 69 to 132. Eighty of them are girls. In Jattaba, another community with an active Mothers’ Club, a trust fund pays scholarships to poor children; mothers cook a daily meal with food donated by the World Food Program; impregnated bed nets are distributed amongst students; and mothers are given ‘seed money’ to help set up income-generating activities.

Though dropout rates have fallen, many parents remain suspicious of ‘western’ education, and what is taught at school is not always deemed pertinent in daily lives. “When kids finish school, they don’t want to farm, but they can’t find other job. They become a liability for parents. We need more skills centers that can teach them a trade” says Alhagi Kumba Touray, chief of a neighboring village.

Government, NGOs and donor agencies provide resources for scholarship trust funds, school contrition, toilets, water wells, meals and other interventions to get more children into school and keep them there. The efforts are bearing fruit: overall enrollment rates went up to 91% in 2014, from 85% in 2004, when the UNICEF-supported girl-friendly-school initiative was launched. Girls’ enrolment went up from 62% to 84%, with a gender gap of only 2% at primary level.

Details: [http://www.ungei.org/infobycountry/gambia.html](http://www.ungei.org/infobycountry/gambia.html)

To be continued…..
Two Articles of Highest Impact, September 2018

Editors’ Choice – Journal Club Discussions

Our friendship has no boundaries. We welcome your contributions.

1. The Apgar Score; [http://www.womenshealthsection.com/content/obsnc/obsnc002.php3](http://www.womenshealthsection.com/content/obsnc/obsnc002.php3)
   WHEC Publications. Funding: WHEC Global Initiatives are funded by a grant from an anonymous donor. Your contributions for Newborn Care section are deeply appreciated and encouraged. We all at WHEC request your submissions. Join us @ WHEC Global Health Line (WGHL). We thank our reviewers for their helpful suggestions.

   WHEC Publications. Funding: WHEC Global Initiatives are funded by a grant from an anonymous donor. Please join us on WHEC Global Health Line (WGHL) to share your thoughts, ideas and suggestions.

From Editor’s Desk

A Perception Change Project

Health through Better Management – Getting more value for money

The way a health system is financed affects the performance of its other functions of stewardship, input (or resource) creation and services provision, and ultimately, the achievement of health system goals of health improvement (or maintenance), responsiveness to people’s non-medical expectations and fair financial contributions.

Every country needs to develop clear pro-health financing policy and a comprehensive health financing strategic plan with a clear roadmap of how it plans to transit from the current health financing state dominated by inequitable, catastrophic and impoverishing direct out-of-pocket payments to a visionary scenario of universal coverage. The strategic plan should also contain policy interventions aimed at strengthening health financing function, e.g. strengthening of health sector advocacy and health financing capacities, health economics evidence generation and utilization in decision-making, better use of available and expected resources, monitoring of equity in financing, strengthening of the exemption mechanisms, managed removal of direct out-of-pocket payments (for countries that choose to), and improving country-led sectoral coordination mechanism (e.g. Side Wide Approaches).

Background

On 8th September 2000, the United Nations (UN) General Assembly, consisting of 191 UN Member States (includes United States), adopted the United Nations Millennium Declaration. In that Declaration they resolved to create an environment – at the national and global levels alike – which is conducive to development and to the elimination of poverty.

While more financial resources are indeed needed, there is growing evidence that health systems with very similar levels of health expenditure per capita show wide variations in population health outcomes partly due to technical and allocative inefficiencies.

Revenue collection is the process through which the health system receives money primarily from households, business firms, ministry of finance and donors (in the form of grants and bans). The revenue collection potential depends on various factors, e.g. absolute income and its distribution, natural resource
revenues, effectiveness of tax systems, structure of the labor market (i.e. formal vs. informal sectors), population size and level of solidarity.

Vision: Universal Health Coverage

Key facts

- At least half of the world’s population still do not have full coverage of essential health services;
- About 100 million people are still being pushed into “extreme poverty” (living on 1.90 USD or less a day) because they have to pay for health care;
- Over 800 million people (almost 12% of the world’s population) spent at least 10% of their household budgets to pay for health care;
- All UN Member States have agreed to try to achieve universal health coverage (UHC) by 2030, as part of the Sustainable Development Goals.

Our Recommendations

1. Advocacy has been defined as an action directed at changing policies, positions or programs of any type of institution. It employs various approaches, including lobbying, social marketing, information, education and communication, community organizing, etc. There is urgent need to strengthen health policy-makers and managers capacities to advocate at national, regional and global forums for increased allocation of available and expected resources to health development.
2. Use data to identify issues for action, widen the range of possible solutions, directly influence decision-makers, inform the media, counter opposing position and reconsider strategies that are not working.
3. Researching policy audiences to understand their knowledge, attitudes and beliefs.
4. Developing the delivering policy messages.
5. Understanding the formal rules and procedures of the decision-making process.
6. Making of effective (persuasive and inspiring) presentations.
7. Fundraising for advocacy and building alliances / networks / coalition among people and organizations.

The Women’s Health and Education Center (WHEC) plans development together and respects the rights of individuals, communities, NGOs and the governments. A policy is an agreement or consensus on the issues, goals and objectives to be addressed, the priorities among those objectives and the main directions for achieving them. Developing a comprehensive health financing to reach our goals is the core of our policy.

Join the efforts – we welcome everyone. There are no strangers or aliens or uninsured @ WHEC – only the friends you have not met.

From The Editorial Board @ WHEC
Covering ten centuries of history of any country or region is a formidable task. When it comes to the history of India and contributions of India to the world — it becomes a daunting task. India's cultural legacy is extraordinarily rich and diverse, as well as profoundly influential. This is the cradle of two world’s greatest religions (Buddhism and Hinduism) and the holy language of Sanskrit — as well as the home of Sikhism and Jainism. For centuries India’s beliefs and myths have fascinated Westerners, including spiritual pilgrims who find themselves drawn to the special atmosphere of its holy places.

Fascination with India and its contributions to the civilization impacting the world, has been illustrated in many books, publications, sacred texts, ceremonies, art, architects, and Hollywood movies. Its life-enriching heritage of wisdom and beauty is legendary to the whole world. We @ WHEC hope you explore this beautiful country, civilization, its art & culture — forever.

India is one of the oldest civilizations in the world with a kaleidoscopic variety and rich cultural heritage. It has achieved all-round socio-economic progress during the last 70 years of its Independence. As the 7th largest country in the world, India stands apart from the rest of Asia, marked off as it is by mountains and the sea, which give the country a distinct geographical entity. Bounded by the Great Himalayas in the north, it stretches southwards and at the Tropic of Cancer, tapers off into the Indian Ocean between Bay of Bengal on the east and the Arabian Sea to the West.

Discover India!

Important innovations in technology, mathematics, astronomy, and medicine has left a mark on the world’s civilization. Sacred sites which fascinates everyone, in East and West alike, are: Mughal mausoleum of the Taj Mahal in Agra, the great Buddhist stupa at Sanchi, and Palaces of Rajasthan (princely states of India). The tourists from all over the world come to understand its unique beauty and charm.

From the civilizations that grew up along the Indus river more than 4,000 years ago to the dawn of European imperialism, India traces the rise and fall of faiths, empires, and dynasties — giving us a multi-faceted portrait of a country, that because of its far-reaching cultural influence, has rightly been called "the mother of us all."

The soul of India lies in humans and embedded in its pluralistic reality and respect for diversity. All the diverse entities are interlinked through their natures and their actions, contributing to the sustenance of a cosmic order, rita (Sanskrit, rta; meaning — The Truth). It is the duty of the priests to re-create and maintain this cosmic order by means to ritual performances — according its holy books (Vedas, Upanishads and Gita).

From Zero to Infinity:

Geometry evolved in ancient India through the need to provide layouts for ritual sites. Arithmetic developed quickly through the Vedic use of the decimal system. Mathematics proved successful because very early on, the Indians, unlike the Greeks, understood the concept of abstract numbers (and not just the numerical quantity of objects). Several key concepts were born in ancient India.
One was the theory of infinity, which was expressed philosophically in very early times and then proved later in the seventh century. Another concept was that of zero and its symbolic value. The so-called Arabic decimal system of numerals, that transformed European mathematics trapped in the cumbersome Roman system, also originated in India.

We all hope you enjoy exploring the Science & Art of India and the broader background of Indian-Wisdom, spirituality, and mythology.

From us @ WHEC.

Leaving No One Behind: https://www.pminewyork.org/

Words of Wisdom

This is my letter to the world

This my letter to the world,
That never wrote to me, –
The simple news that Nature told,
With tender majesty.

Her message is committed
To hands I cannot see;
For love of her, sweet countrymen,
Judge tenderly of me!


**************************************************

Monthly newsletter of WHEC designed to keep you informed on The latest UN and NGO activity

http://www.WomensHealthSection.com