Surgical Volunteerism

Gynecologic Surgery and Surgical Needs
in the Developing World

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Disclosures

I have no disclosures or conflicts

Objective

At the conclusion of this presentation, the participants should understand global health disparities and surgical volunteerism in short term mission settings.

Outline

1. Global health care disparities
2. Desires to help
3. Difficulty serving in the US
4. Ethical considerations
5. Models for serving
6. Current model
7. Future model

Surgical Volunteerism

"Medicine arose out of the primal sympathy of man with man; out of the desire to help those in sorrow, need, and sickness."

Sir William Osler

Disparity of Global Health Services

- 26% of operations world-wide occur in poor and low health expenditure countries
- 70% of world population lives in poor and low health expenditure countries
- Global volume of surgery – 234 million operations per year

Weiser et al, *Lancet* 2008; 372(9633): 139-144

Disparity of Global Health Services

Variable	Americas	Sub-Saharan Africa
Total World Population %	14	11
Global Disease Burden %	10	25
World's Health Workers %	42	3
Global Health Expenditures %	>50	<1

World Health Organization, Fact Sheet 302

Disparity of Global Health Services

Healthcare Workforce 2011
Number of Healthcare workers per 10,000 people

Bolivia	12
Dominican Republic	19
India	6
Kenya	1
United States	27
Zambia	.66
Zimbabwe	.62

Disparity of Global Health Services

Life Expectancy in Years – 2011
Both Sexes

Bolivia	67
Dominican Republic	71
India	64
Kenya	53
United States	79
Zambia	47
Zimbabwe	42

Disparity of Global Health Services

Burden of Disease or Healthy Life Expectancy– 2009
Both Sexes

Bolivia	58
Dominican Republic	63
India	56
Kenya	48
United States	70
Zambia	40
Zimbabwe	39

Disparity of Global Health Services

Per Capita Expenditures on Healthcare in USD– 2011

Bolivia	118
Dominican Republic	295
India	59
Kenya	36
United States	8608
Zambia	87
Zimbabwe	66

Disparity of Global Health Services

Births Attended by Healthcare Personnel by Region – 2007

Africa	47%
Americans	92%
Southeast Asia	49%

Disparity of Global Health Services

Births Attended by Healthcare Personnel – 2007

	Rural	Urban
Bolivia	51	88
Dominican Republic	94	96
India	37	73
Kenya	35	72
United States	>99	>99
Zambia	31	83
Zimbabwe	58	94

Disparity of Global Health Services

Regional Maternal Mortality per 100,000

Africa	900
Americas	99
Southeast Asia	450

Disparity of Global Health Services

Maternal Mortality per 100,000

Bolivia	190
Dominican Republic	150
India	450
Kenya	560
United States	21
Zambia	836
Zimbabwe	880

Disparity of Global Health Services

- 1990 – African Countries had an incidence of surgery 20 times lower than Western Countries
- 2007 - Ethiopian rural hospitals – none are equipped for surgery
- 2004 – East Africa – 40 orthopedists for 200 million population
- 2007 – Tanzania – 2 physicians per 100,000 population
- 2007 – United States – 256 physicians per 100,000 population

Taira et al, *World Journal of Surgery* 2009; 33:893-898

Role of Surgery in Global Health Services

◆ Surgery has an important role as a public health strategy in at least four areas

1. In the prevention of death and chronic disability in injured patients by the provision of timely, expert, and complete initial surgical management
2. In the timely surgical intervention in obstructed labor, in pre- and post-partum hemorrhage, and in other obstetrical complications
3. In the provision of competent surgery to treat a wide range of emergency abdominal and non-abdominal conditions
4. In the surgical care of several elective conditions that have a significant effect on the quality of life, such as cataracts, otitis media, clubfoot, hernias, hydroceles, menorrhagia, urinary incontinence, and contraception

Disease Control Priorities in Developing Countries, 2nd edition, D. Jamison, et al, Oxford Pres, 2006

Disparity of Global Health Services

Healthcare Personnel Shortage

◆The WHO estimates that 57 countries, 36 of which are in Sub-Saharan Africa, have critical health workforce shortages, making it difficult if not impossible for them to achieve the health-related Millennium Development Goals

The U.S. Commitment to Global Health: Recommendations for the Public and Private Sectors
Committee on the U.S. Commitment to Global Health; Institute of Medicine, 2009

Disparity of Global Health Services

Healthcare Personnel Shortage

◆ Given the overwhelming interest in global health, a relatively small number of U.S. health professionals currently work in low and middle income countries

◆ Many health professionals volunteer with faith-based or secular non-governmental organizations, while several universities and corporations support health personnel in low income countries through global health programs or research projects.

The U.S. Commitment to Global Health: Recommendations for the Public and Private Sectors
Committee on the U.S. Commitment to Global Health; Institute of Medicine, 2009

Disparity of Global Health Services

U.S. Contributions to Global Health

- Estimated $250 million spent each year on mission projects
- In 2005 U.S. non-profits contributed $5.7 billion to global health
- Of the 556 non-profit organizations registered with USAID 411 or 74% report working in global health

The U.S. Commitment to Global Health: Recommendations for the Public and Private Sectors Committee on the U.S. Commitment to Global Health; Institute of Medicine, 2009

Disparity of Global Health Services

Educational Experience in Global Health

- Data from the Association of American Medical Colleges (AAMC) demonstrates that the percentage of U.S. senior medical students participating in global health experiences increased from 8% in 1986 to 28% in 2008 and two-thirds of U.S. medical schools now provide courses in global health

The U.S. Commitment to Global Health: Recommendations for the Public and Private Sectors Committee on the U.S. Commitment to Global Health; Institute of Medicine, 2009

Disparity of Global Health Services

University Residency Relationships

- UCSF Orthopedic rotation in Uganda
- Cornell University in Tanzania
- Brown University in Kenya
- Indiana University in Kenya
- University of Iowa in Bolivia
- Others – Johns Hopkins, Colorado, NYU, Loma Linda

Disparity of Global Health Services

"International humanitarian medical efforts provide essential services to patients who would not otherwise have access to specific health care services. The Committees on Ethics and Global Women's Health of ACOG encourage College Fellows and other health care professionals to participate in international humanitarian medical efforts for this reason."

Committee Opinion, *Ethical Considerations for Performing Gynecologic Surgery in Low-Resource Settings Abroad*, ACOG, 466, September 2010.

Disparity of Global Health Services

International/Domestic Needs

- United States itself has an unmet need for medical services to the poor
- Numerous groups work extensively in our country to provide free/low cost care
- Operation Access – San Francisco
  - Weekend use of ORs in 19 area hospitals
  - 60 clinics with 400 volunteers
  - $1.3M in free surgical care in 2006
- Surgery on Sunday – Lexington, KY
- Fresh Start Surgical Gifts – San Diego
- Mission Cataract USA
- US safety nets – will receive care at any hospital and frequently have funding via Medicaid and other programs

Disparity of Global Health Services

International/Domestic Needs

- Strict state licensing requirements and hospital credentialing requirements
- Significant liability concerns
- Concept of "Outside" surgeons coming to a community creates issues
  - *Different perspective within the US compared to developing countries welcoming "international" teams
  - *Local physicians may feel threatened or insulted
- Current free clinic design not particularly helpful to gyn surgeons who need an OR and support teams

Disparity of Global Health Services

"Unique ethical challenges arise in conjunction with the provision of medical and surgical services for patients in low-resource communities abroad. It is important for health care providers to consider these challenges before participating in international surgical efforts in these settings."

Committee Opinion, *Ethical Considerations for Performing Gynecologic Surgery in Low-Resource Settings Abroad*, ACOG, 466, September 2010.

Disparity of Global Health Services

"Health care professionals must give careful consideration to the goal of maintaining the highest standards of care possible within the limitations of the environment and the context of the local culture."

Committee Opinion, *Ethical Considerations for Performing Gynecologic Surgery in Low-Resource Settings Abroad*, ACOG, 466, September 2010.

Disparity of Global Health Services

"Uphold fundamental standards of ethical practice afforded to patients in industrialized nations – determine what services should and should not be provided in the local context."

Committee Opinion, *Ethical Considerations for Performing Gynecologic Surgery in Low-Resource Settings Abroad*, ACOG, 466, September 2010.

Disparity of Global Health Services

- Informed consent – autonomy and respect for patients and aware of vulnerability.
- Medical resources – aware of potential limits of the local medical resources including surgical equipment, pharmaceutical agents, basic supplies, and personnel.
- Surgical competence and training – provide only at the level surgeon is competent and trained and at the level of competence of additional health care providers.
- Preoperative and postoperative care – ensure local medical professionals are capable and accept care after departure.

Disparity of Global Health Services

- Sustainability – investment of education, medical supplies, and personnel to the resource-limited country so that local community members can take an active role in maintaining and improving the health of the population and in preventing disease.
- Clinical and social research – population specific data may be more relevant to their population and aid in treating specific disorders.

Disparity of Global Health Services

Successful Missions/Projects

- Abdullah in Archives of Surgery 2008 – commentary
- "Long term" relationships
- Teaching
- Advancing local technology in community served including improved local outcomes
- Orgediz in letter in Archives of Surgery
- "longitudinal, mutually beneficial relationship"

Disparity of Global Health Services

Medical Diplomacy

- Clear sustainable impact seen on relationships in difficult areas when medical care is provided
  - Indonesia after tsunami in 2004
  - Pakistan after earthquake in 2005 and floods last year
- Reversed negative attitudes toward provider countries
- Decreases support for global terrorism

Many Opportunities

What is the best?

Difficult to do on your own

- No integration into local systems
- Expensive
- Non-sustainable

Help?

Sending Supplies

Technology

- Different electrical systems – 110 vs 220
- Supplies to operate instruments
- Technicians to operate instruments
- Therefore can be useless!

What has been learned

3 Basic Experiences or Models

- Pass out fish
- Teach how to fish
- Let's go fishing together

Pass Out Fish

Example – Response to natural disasters

Positives

- Sometimes best and only answer
- Resources to those in immediate need – clean water, food, first aid, housing

Negatives

- No longevity
- Rarely sustainable
- Undermines local culture-fly in and take over

Teach How To Fish

Example – Surgical Techniques, Oxytocin Use, NRP for NICU nurses

Positives

- Integrate into local systems
- More sustainable
- Can help establish medical systems
- Can create independence

Teach How To Fish

Negatives

- Who and what is driving force- us or them
- Can be arrogant and condescending
- May undermine local systems
- Can create dependence
- Can create jealousy – show and tell

Let's Go Fishing Together

Example – Local doctors already providing care and we learn how they are already catching fish and integrate with them

Positives

- Creates independence
- Develop relationship of trust and fellowship
- Allows successful integration of sustainable technology

Let's Go Fishing Together

Negatives

- Requires a lot of work and connections
- Requires time and patience
- Need to change from a mindset of volume to careful small steps with greater dividends

Benefits of Humanitarian Work

- Many needy, loving, grateful people
- Rekindles the "why" we went into medicine
- Can make a difference
- Learn new cultures
- Gracious hosts
- Outstanding people and team work
- Ambassadors of goodwill
- An education in ingenuity and innovation
- It will change your life and those with you

Problems of Humanitarian Work

- Expensive
- Safety – better with experience and connections
- Neglected and advanced diseases
- Bureaucracy – all are alive and well everywhere
- Travel issues – health, logistics, customs
- "Just remember where you are" – their country, their traditions and their bureaucracies

Organizations

- Many available - be careful
- Secular vs Non-secular
- If secular – denominational
- Do you agree with their mission statement?
- Do they have sustainable goals?
- Amount of money for administration
- Experience
- In country connections
- ACOG website – listing of secular and non-secular groups

Why Ob/Gyns?

- Great Need Worldwide
- Great Desire to Help
  - Ob/Gyns – usually more are involved
  - Health Care Providers – we are frequently married to them
  - Residents and Medical Students – AAMC study
- Much Smaller World
- Many Resources
  - People
  - Supplies
  - Talents

Why Ob/Gyns?

- We can make a difference
- Rejuvenation – Physician Burn out
  - Rekindles the "why" we are in medicine
- Learn other cultures
- Satisfies our inherent desire to help others

How?

- Start small
- Build
  - Return yearly initially and more frequently in future
  - Sustainability
    - Resources – Human and Material
    - Educational – Lectures, Consultations, Observation
    - Trust
- Dream Big – Residency, Conferences/Congresses, Facilities

Stats – 17 years

Participants – 725
Medical clinics patients – 19,474
Filled prescriptions – 56,545
Health education class participants – 20,564
Surgical procedures, major and minor – 1810
Surgical consults - 3479