



## International Conference on Higher Education in Iraq, Erbil, Iraq 11-13 Dec 2007

Publications as a performance indicator of higher  
education: A comparison between MENA and Iraq

Ismail Jalili

FRCS, DO, FRCOphth

**Consultant Ophthalmologist, UK**

# Introduction



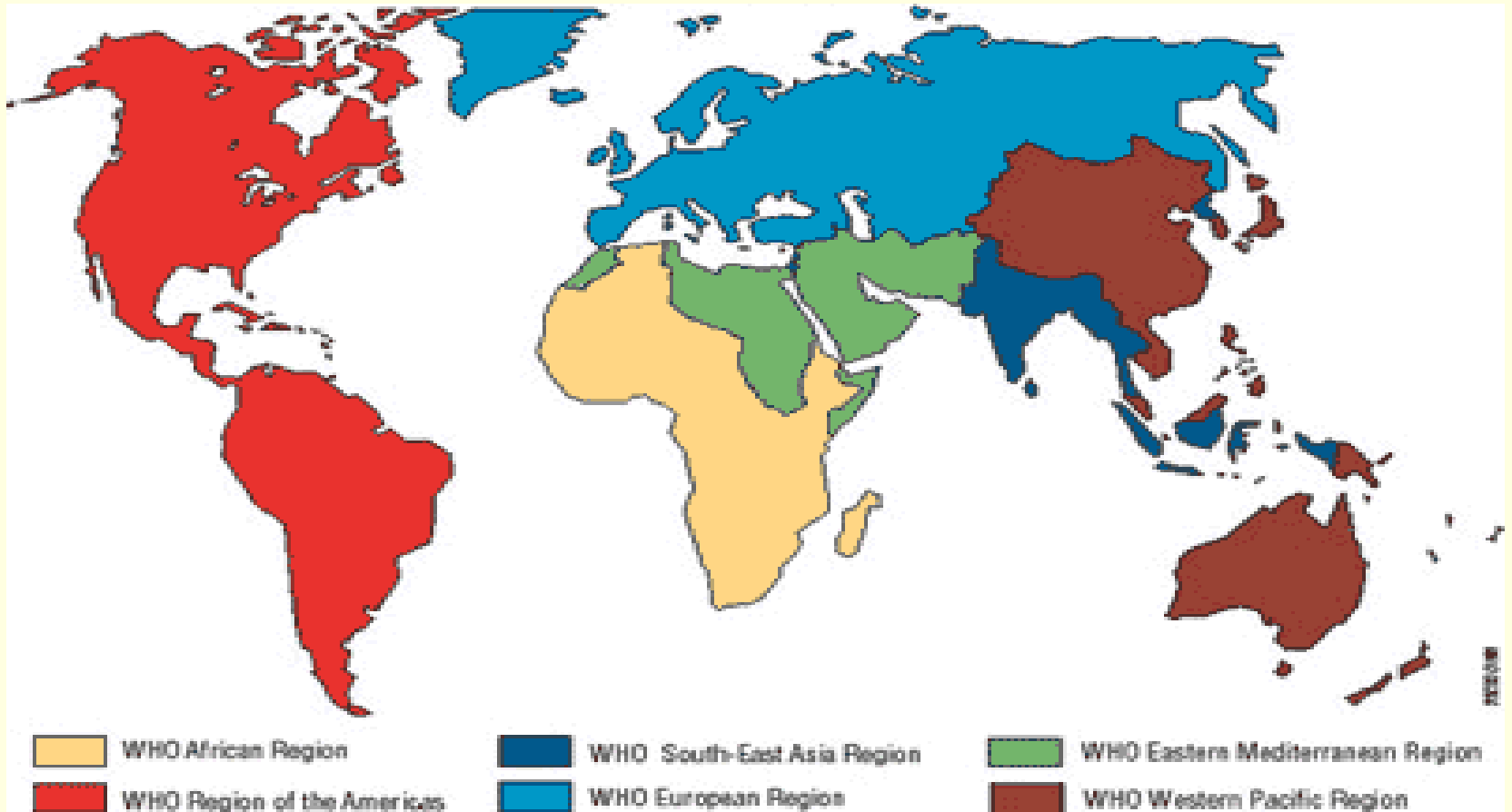
- Scientific advances echoed by an rise in number of publications in recent years.
- How is performance of Iraq's higher education in comparison with MENA and the rest of the world?

# World Bank (WB) Grouping of Countries



- In 1990, WB grouped countries into 8 regions on socio-economical basis:
  - Established Market Economy (EME)
  - Previous Socialist Economies (PSE)
  - Latin America & the Caribbean (LAC)
  - India
  - China
  - Middle East & North Africa (MENA)
  - Sub Saharan Africa (SSA)
  - Other Asian Islands & Countries (South Asia)

# MENA Region



# Aims



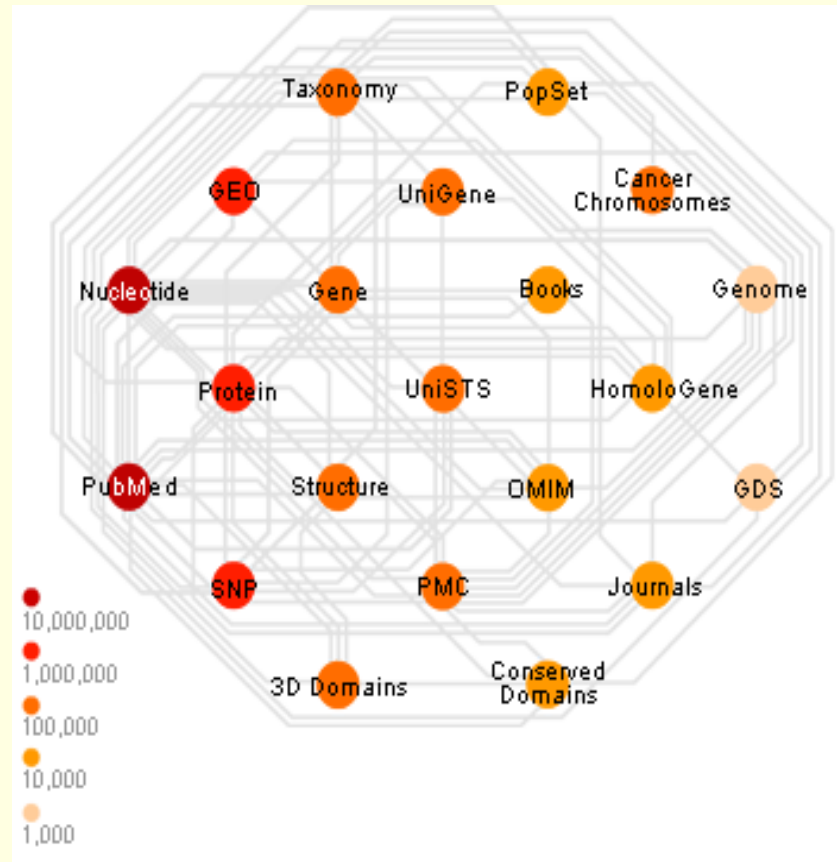
- Evaluate publications in medical sciences coming from local institutions
- by local practitioners
- published in English in international journals quoted by PubMed / Entrez
- compare results with EMC regions

# Methodology



PubMed / Entrez is the integrated, text-based search and retrieval system used at the NCBI (National Centre of Bio-technology Informatics) for the major databases.

<http://www.ncbi.nlm.nih.gov/sites/entrez?db=PubMed>



# Methodology



PubMed was searched between 20–25 Nov 2007

- General Citations:  
*Country\** NOT *Country* [au]
- Specific Citations:  
*Country\** AND *Subject* NOT *Country* [au]
- Modifications of above when necessary for the best results and avoid terminology mishaps and overlaps in terminologies and country names

# Methodology

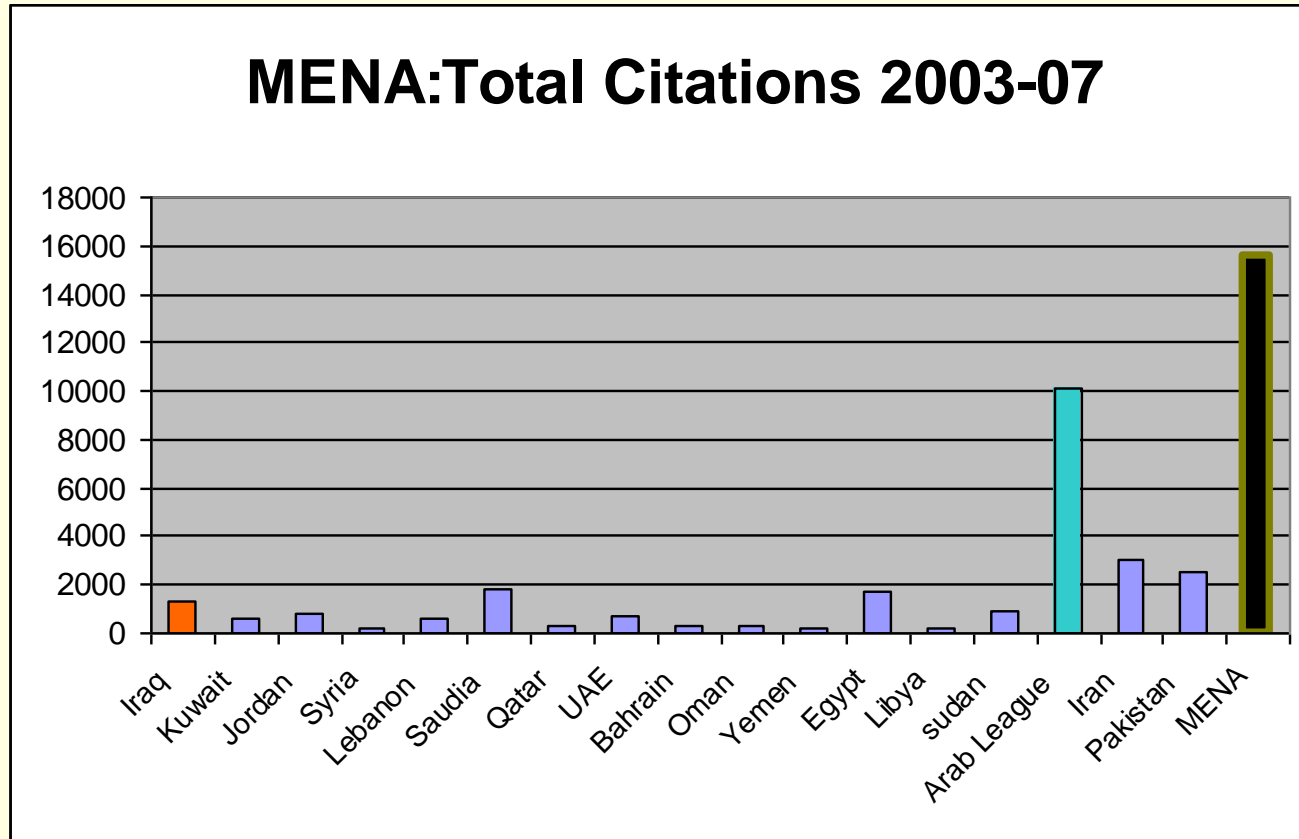


## Examples

- *Iraq\** NOT *Iraq\** [au]
- *Iraq\** AND *paediatrics* OR *paediatrics* NOT *Iraq\** [au]
- *Jordan\** AND *Cancer* OR *oncology* NOT *Jordan\** [au]
- *Swed\** NOT *Swed\** [au]
- Modification to achieve optimal/accurate data.



# Results: Total Citations

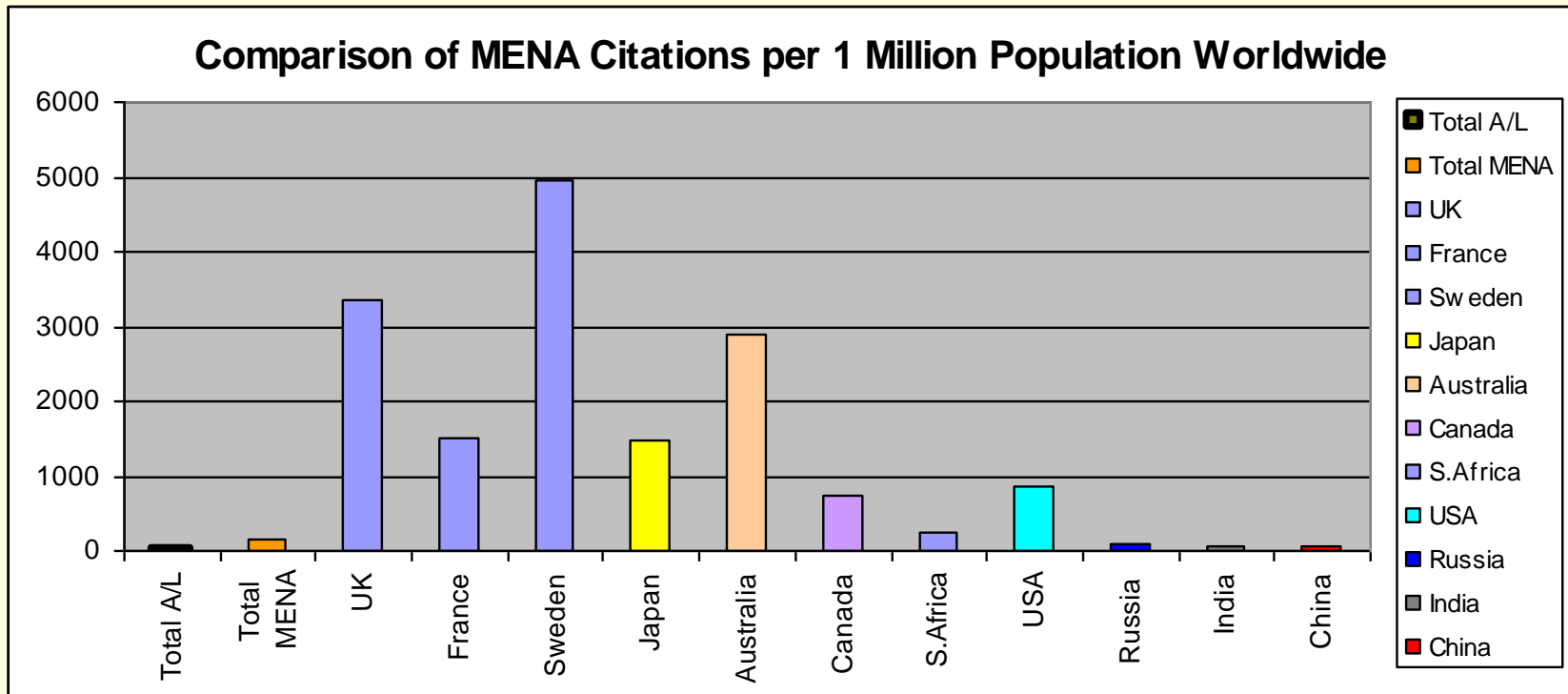


# Parameters used



- Data correlated in relation to the following per country per:
  - 1 million population
  - Number of medical schools/colleges
  - Number of medical practitioners

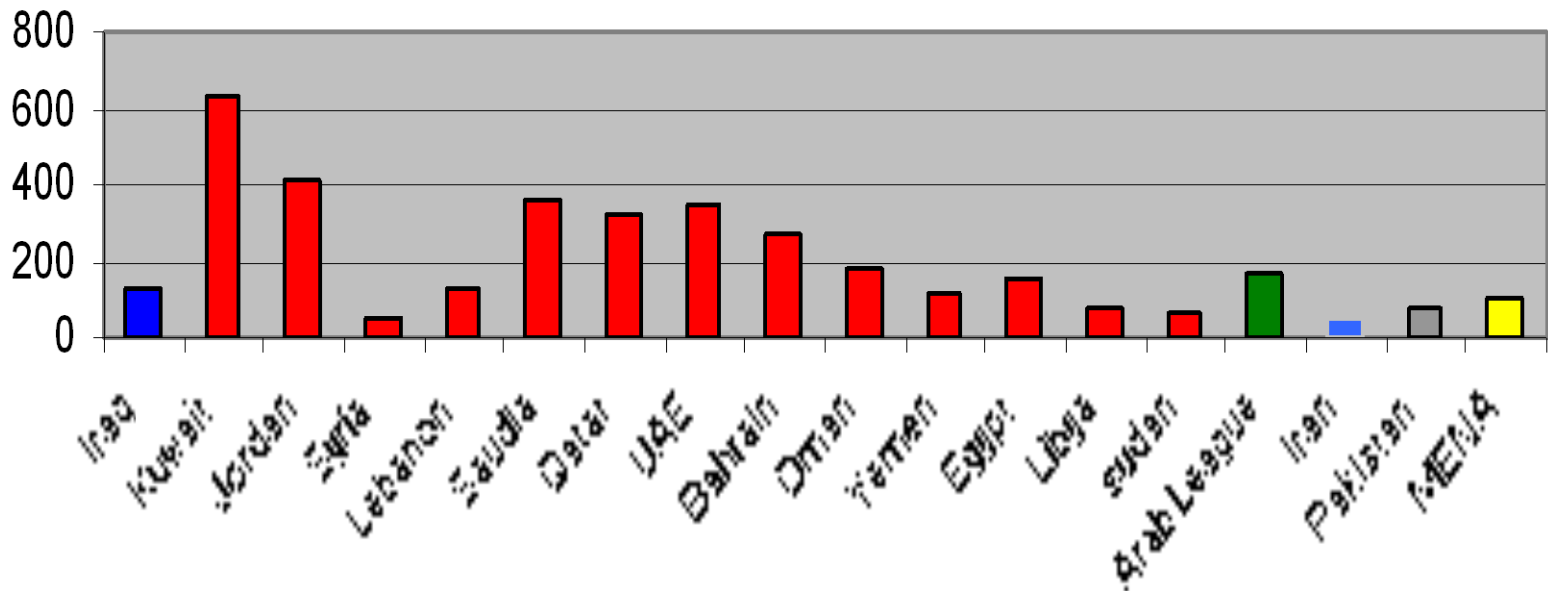
# Comparison: worldwide



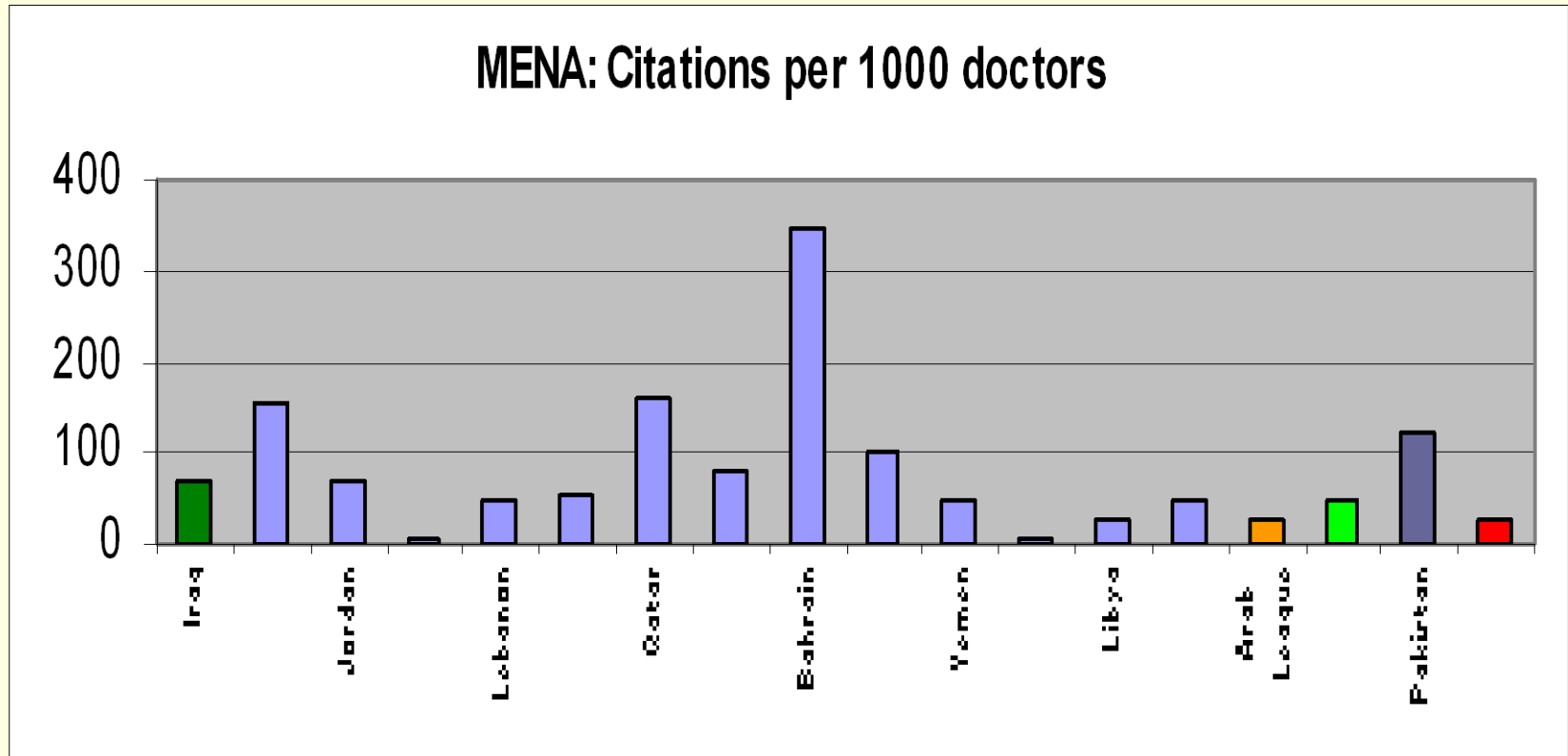
# MENA: Citations per Medical Colleges



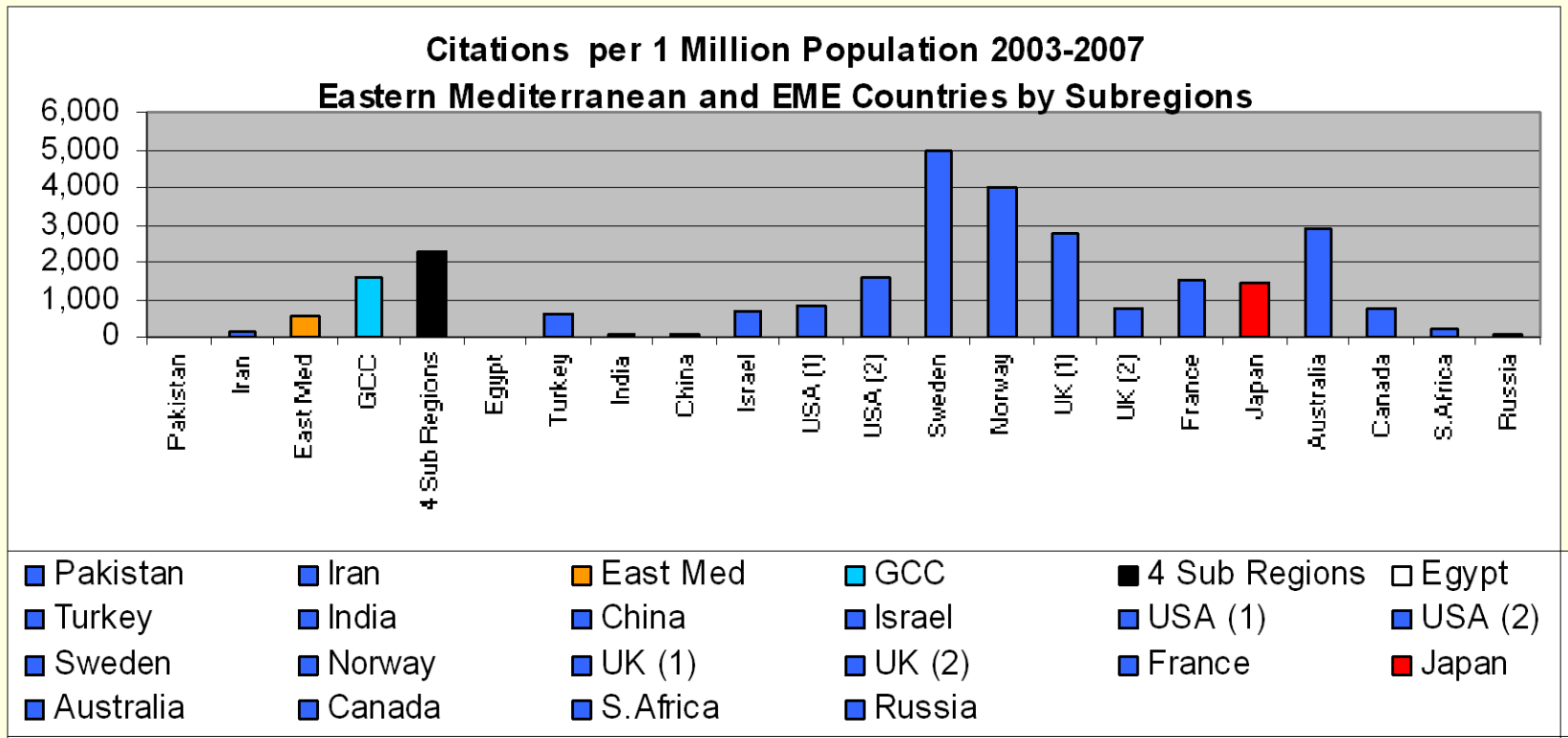
Citations from 2003 - 2007 per medical colleges

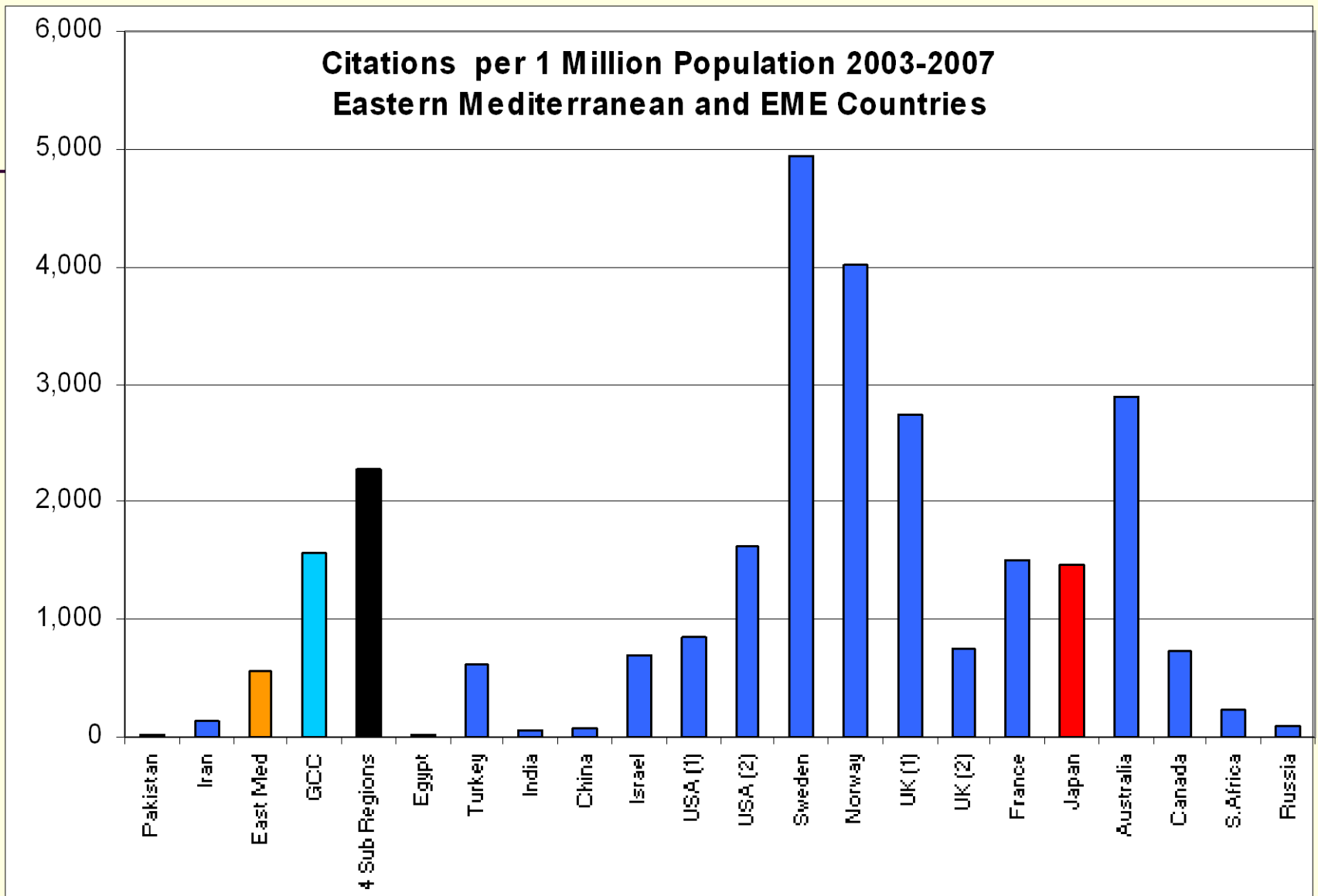


# MENA: Citations per 1000 doctors 2003-2007



# Eastern Mediterranean





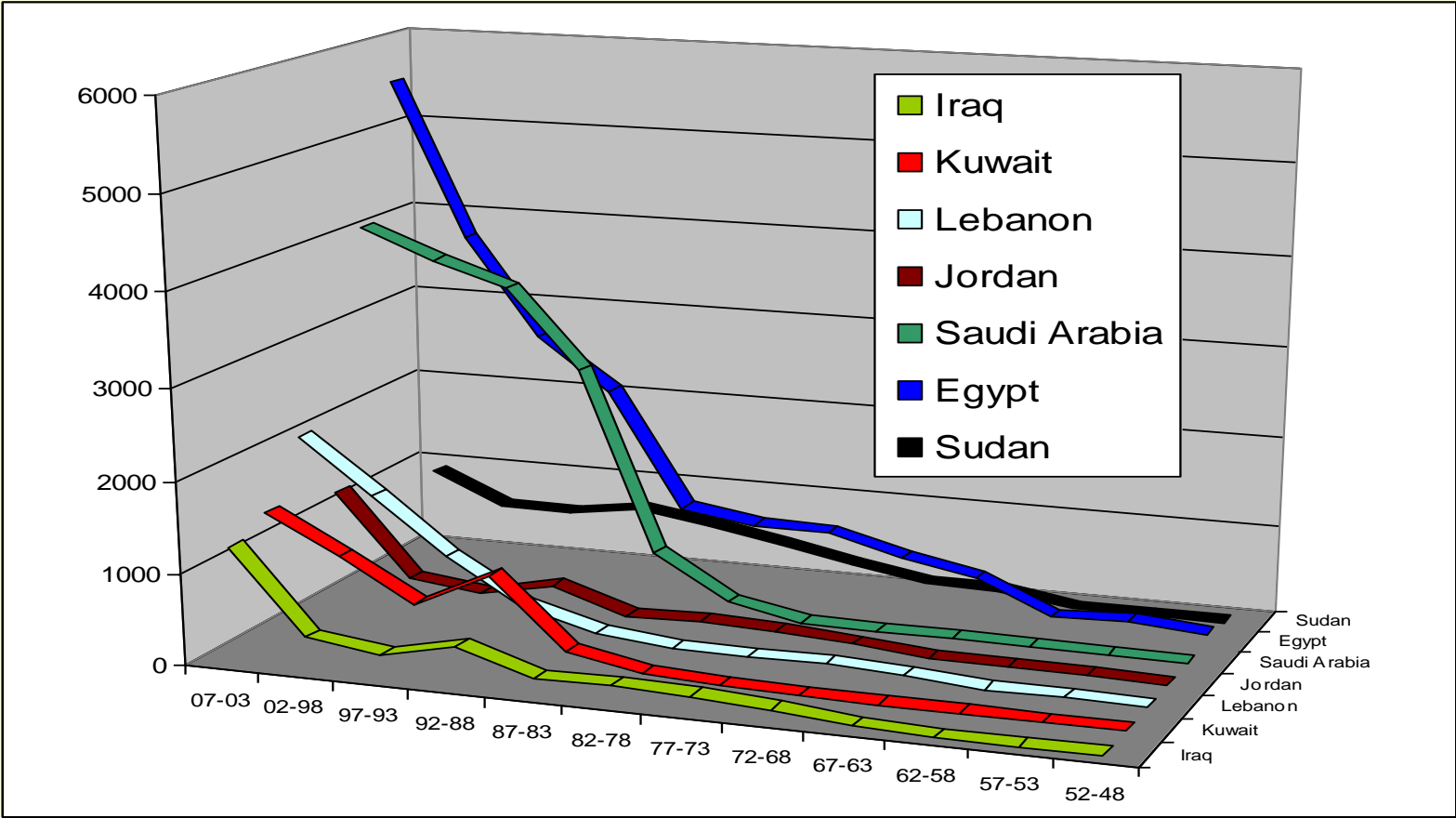
# What have we been doing in Iraq?



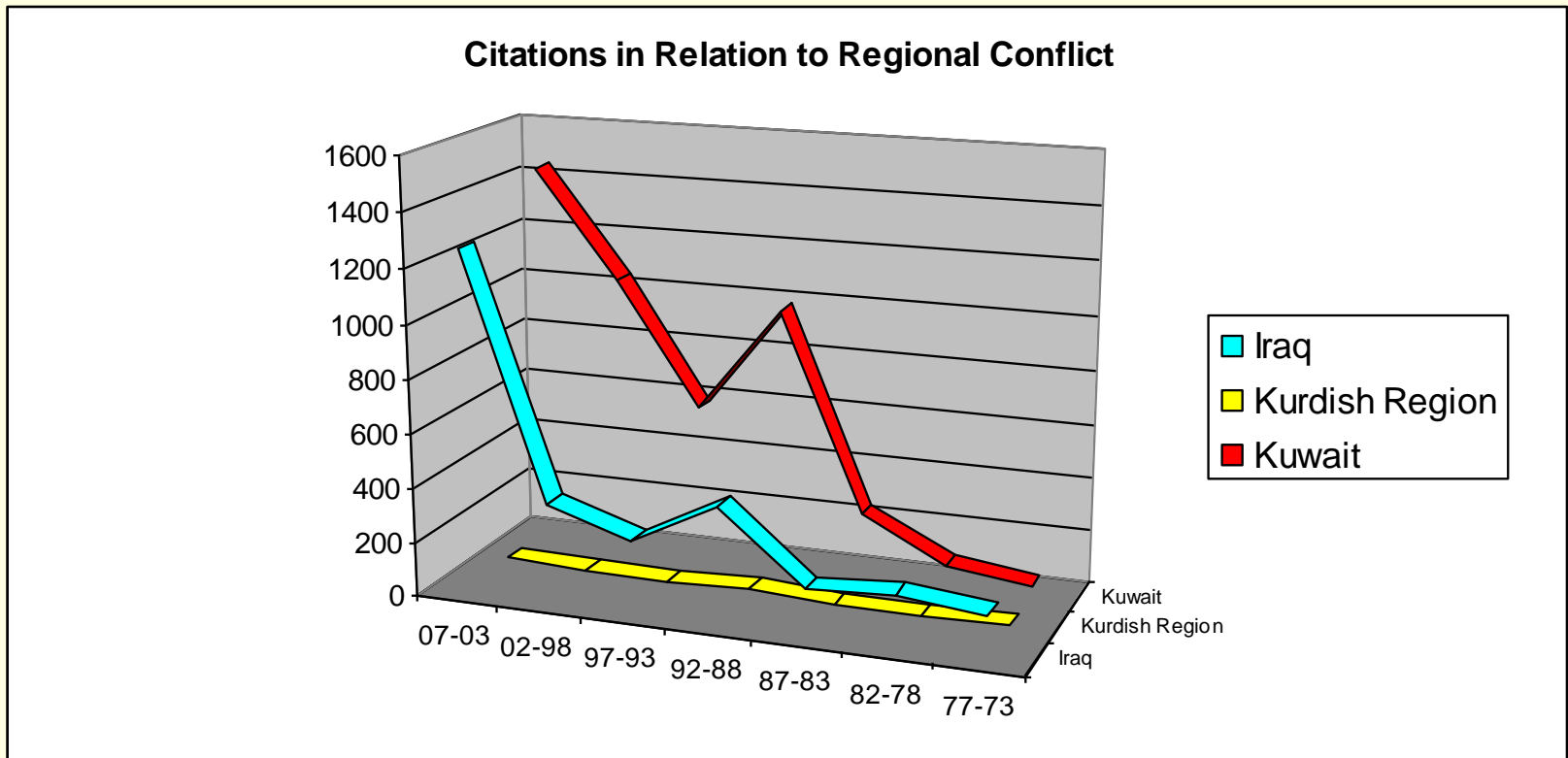
- ❑ Slow and sluggish progress
- ❑ Influence by events and turmoil
- ❑ Inconsistencies between universities
- ❑ Patterns: 3 noticeable patterns:
  - ❑ Low academic publications in general
  - ❑ Higher neglect in certain fields
  - ❑ Obvious effect of conflict 'Crisis Notch'



# Temporal Trends in numbers of citations: Arab league



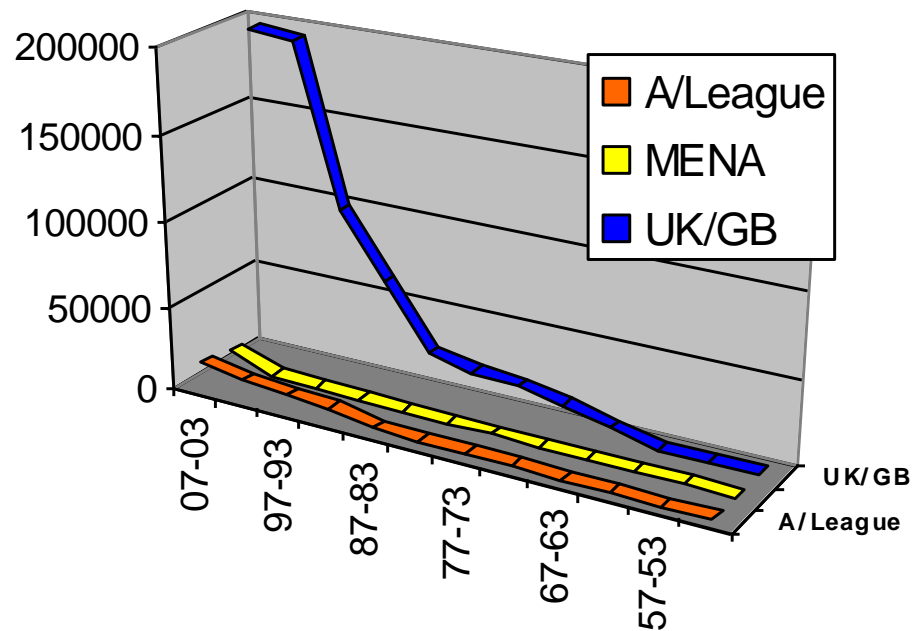
# Results: Trends in the Gulf - Iraq/Kuwait



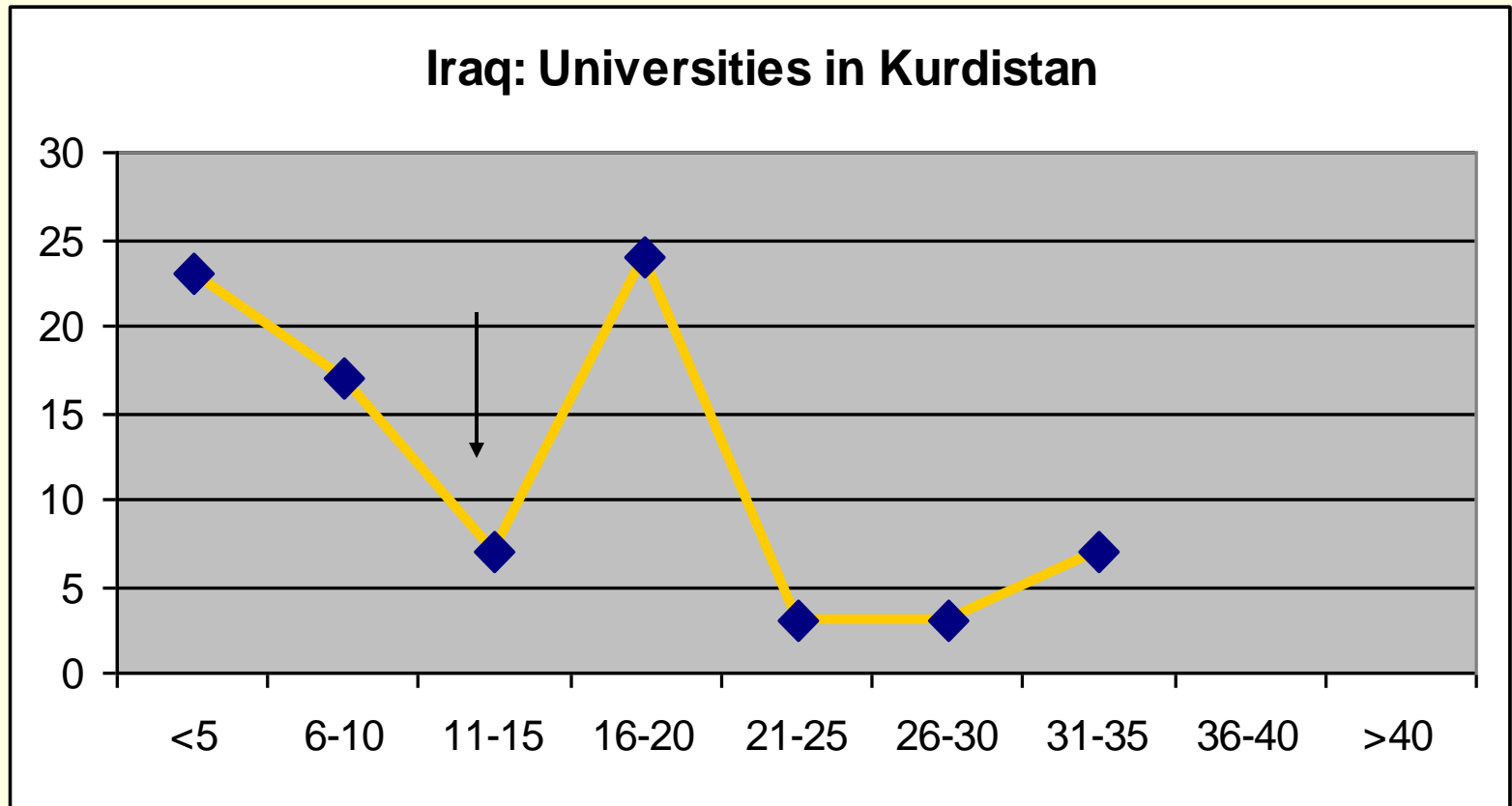
# MENA, Arab League and UK



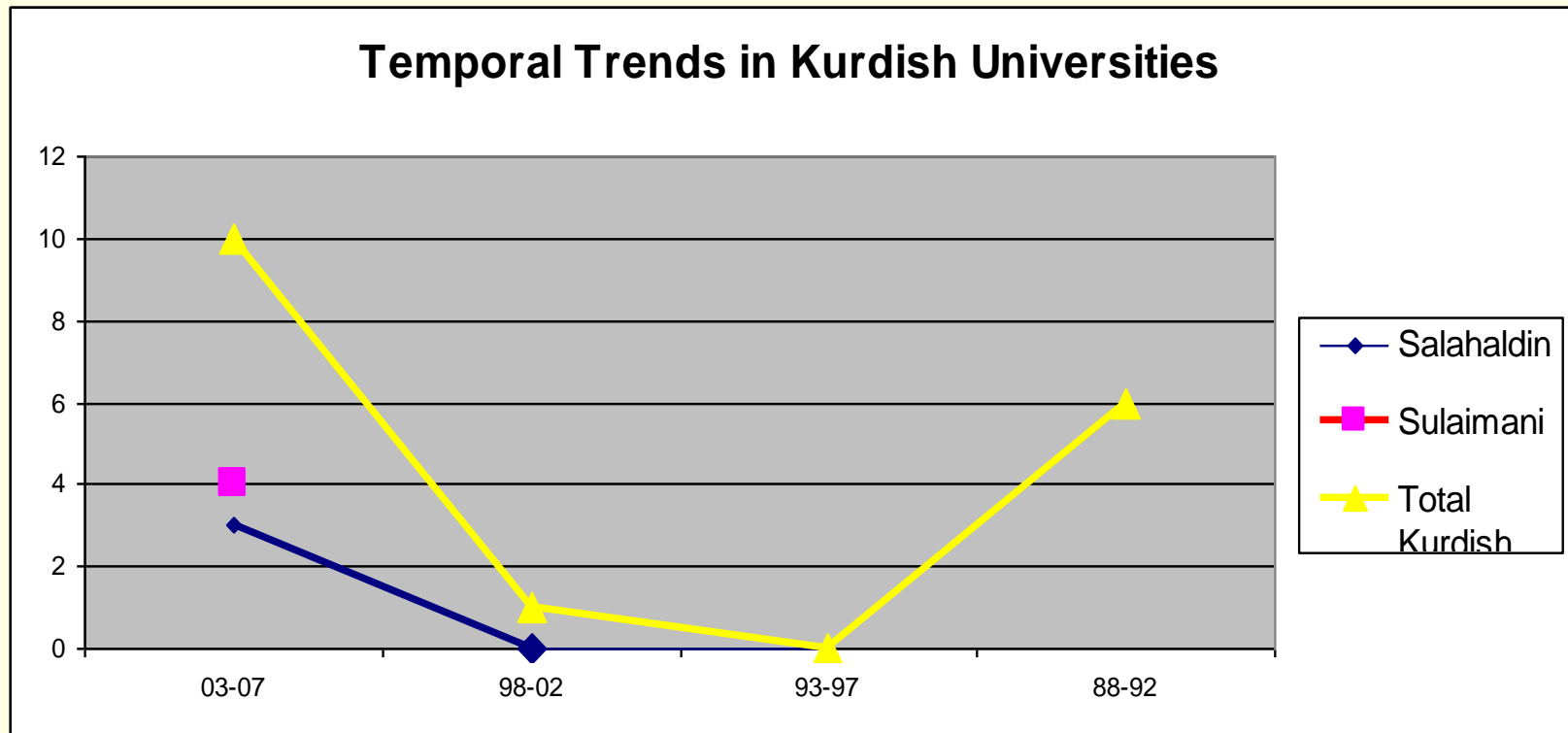
### Comparison: Arab League, MENA, and UK 1953-2007



# Kurdish Region: All Citations



# Temporal Trends Universities Kurdistan 1988-2007



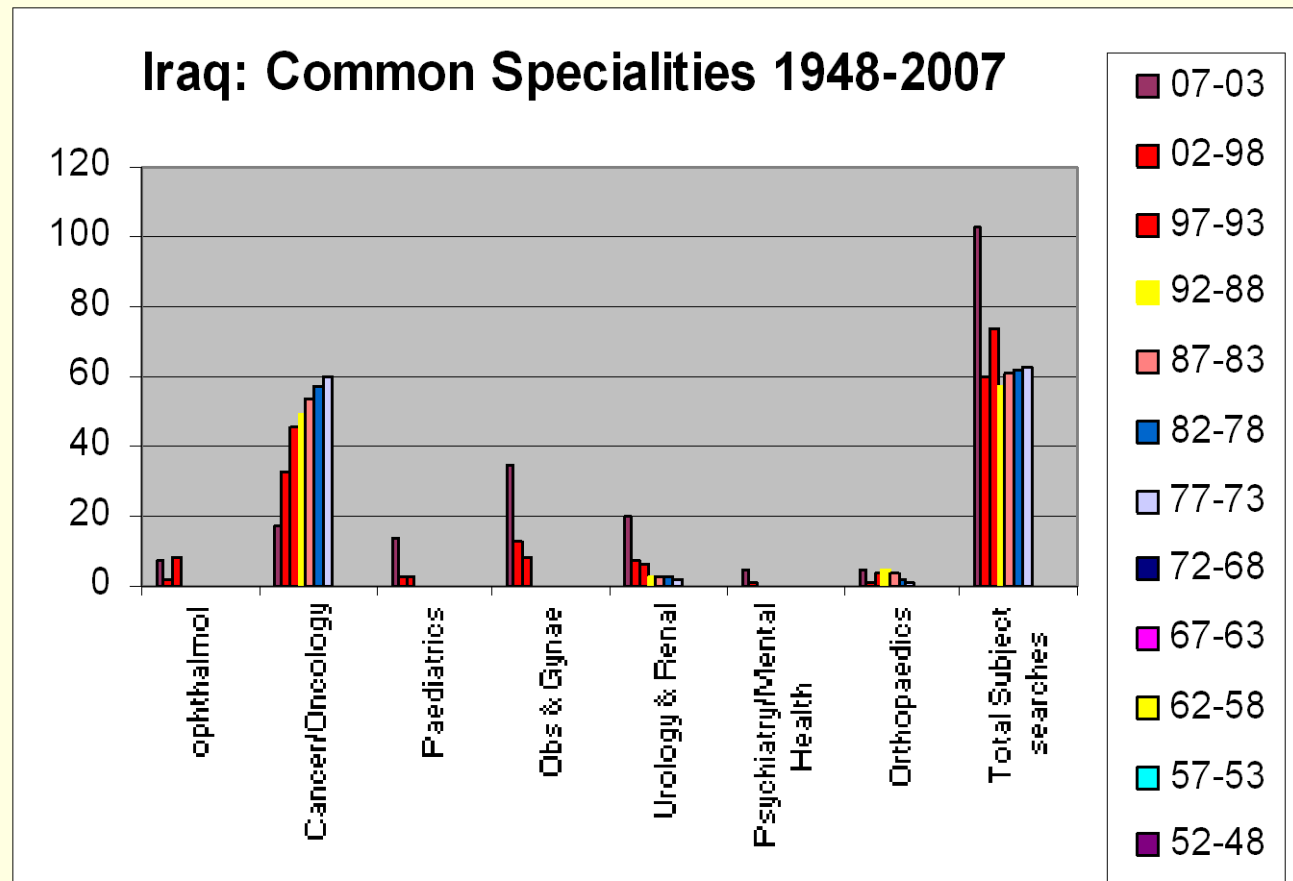
# Strengths and weaknesses



## Comparison between selected fields of medical sciences

- In general a lot of similarities
- Sluggish start
- Under emphasis on:
  - psychiatry
  - obstetrics & gynaecology
  - paediatrics

# Iraq: Trends in Selected Specialities 1948-2007



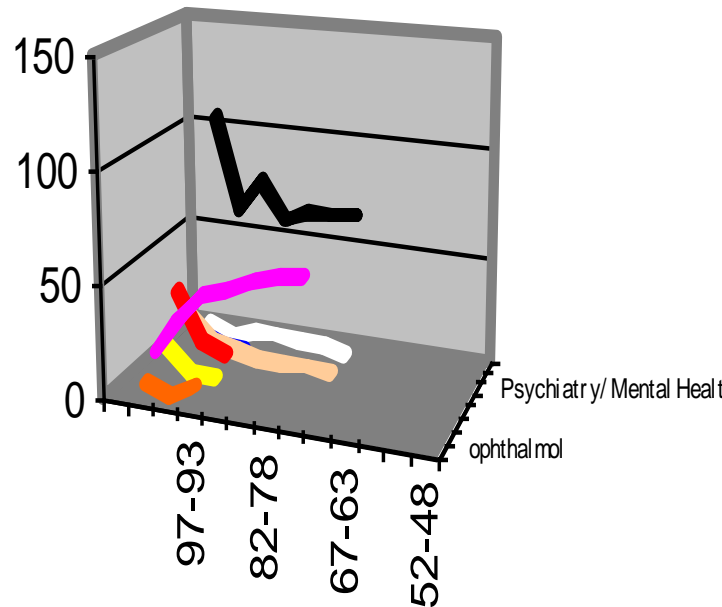
# Iraq: Temporal Trends

## 1948-2007



### Iraq: Temporal Trends in Selected Subjects

1948-2007



- ophthalmol
- Cancer/Oncology
- Paediatrics
- Obs & Gynae
- Urology & Renal
- Psychiatry/Mental Health
- Orthopaedics
- Total Subject searches

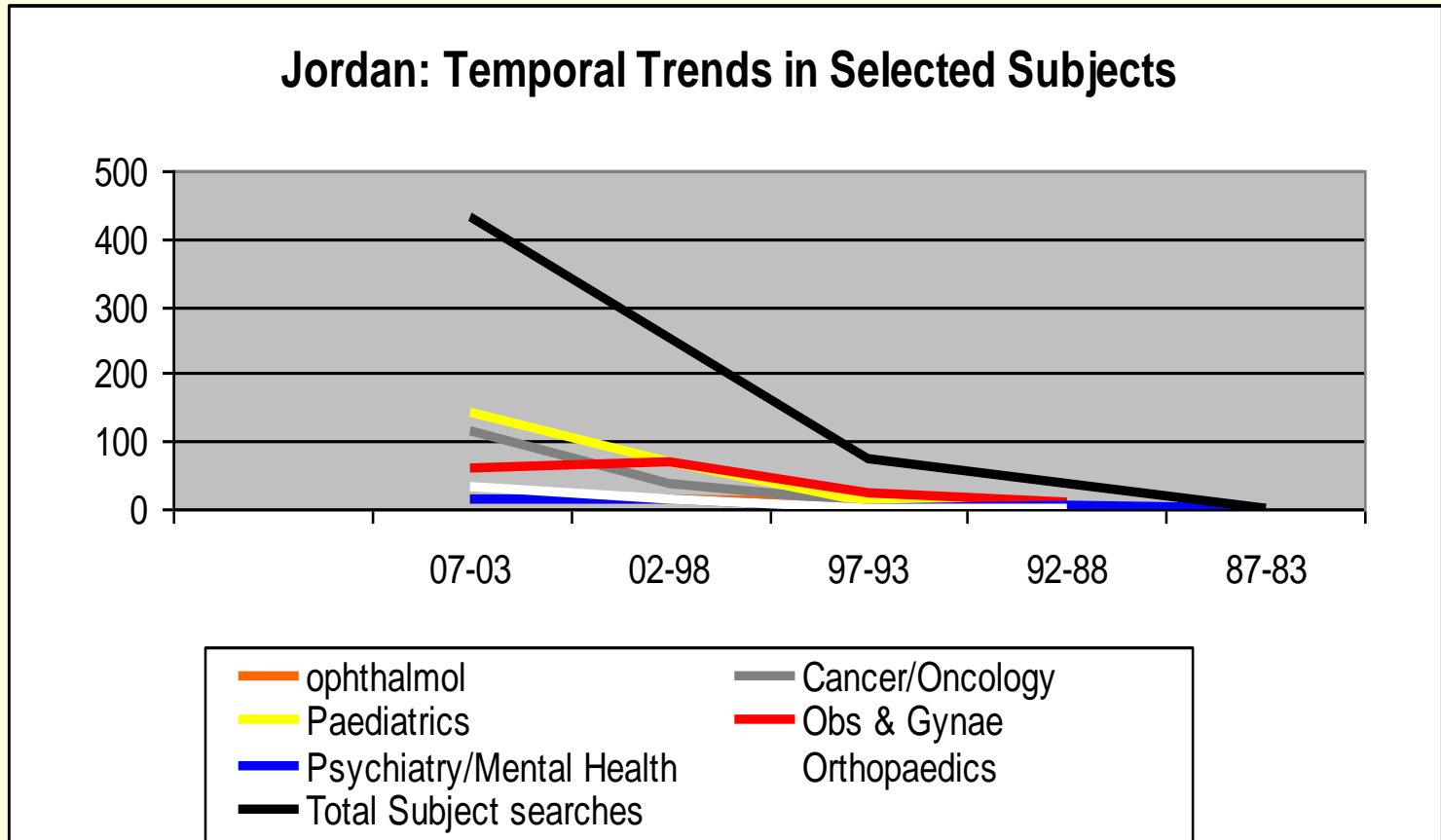


# Trends in Specialties

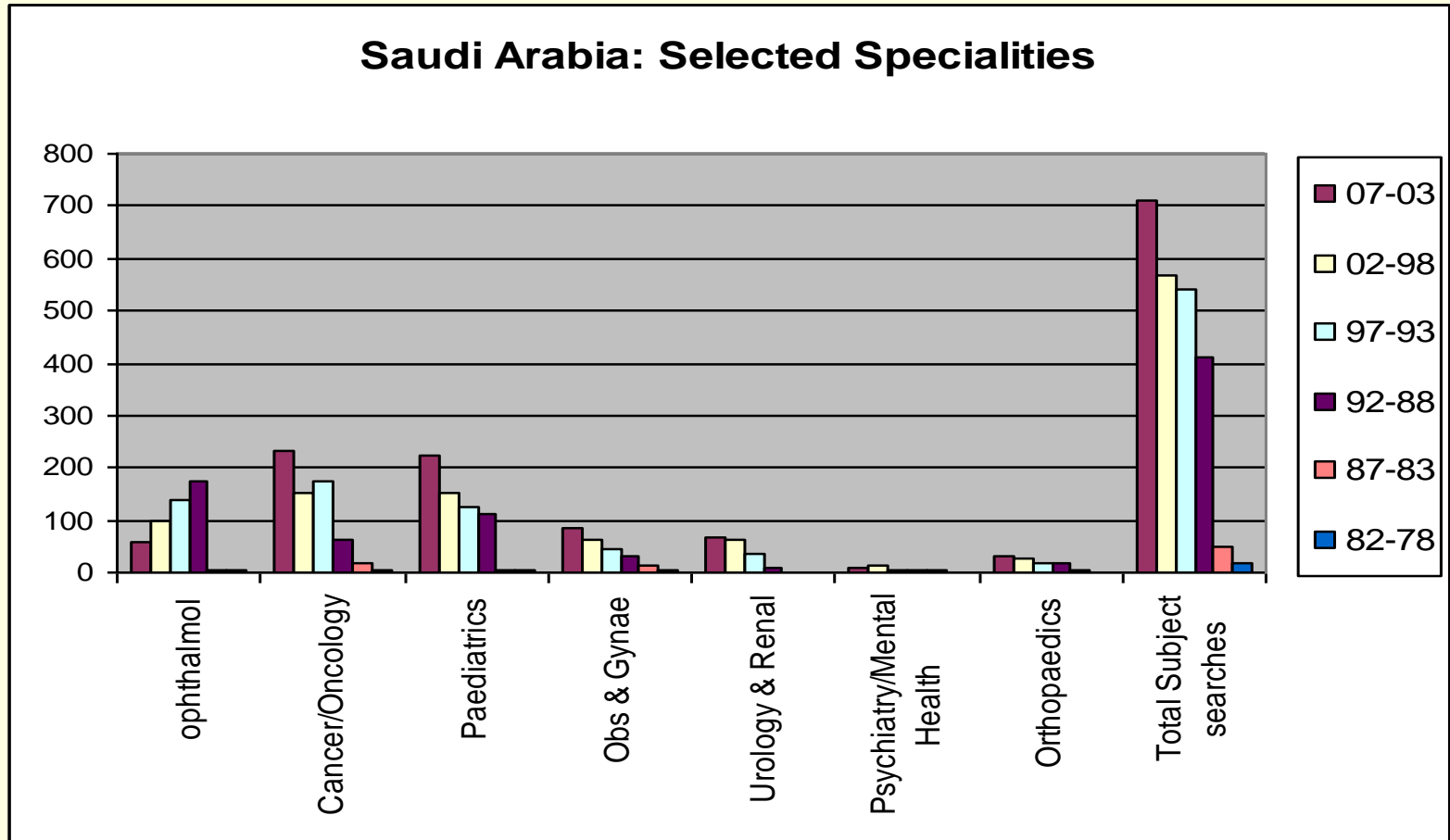


Other countries citations for selected specialties

# Jordan: Trends in Selected Specialities 1948-2007



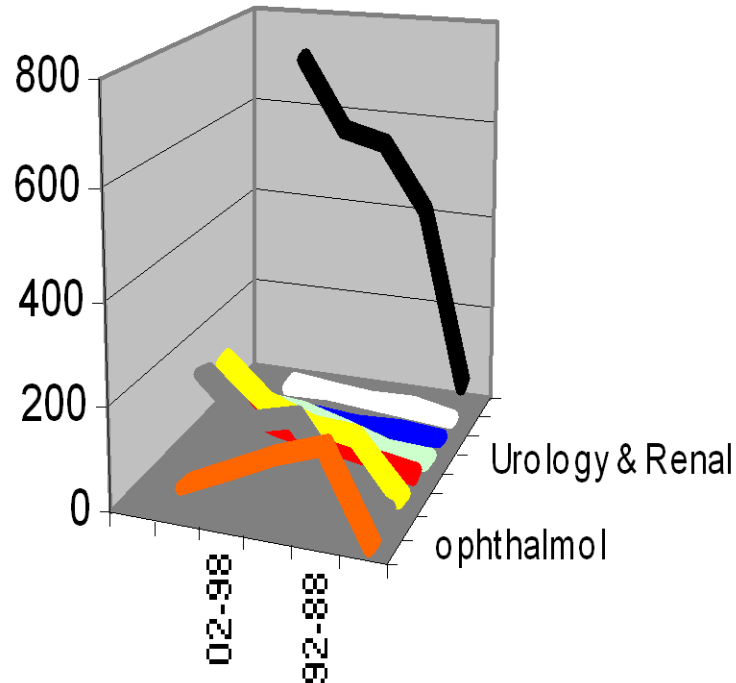
# Saudi Arabia: Selected Specialities



# Saudi Arabia: Trends in Selected Specialties

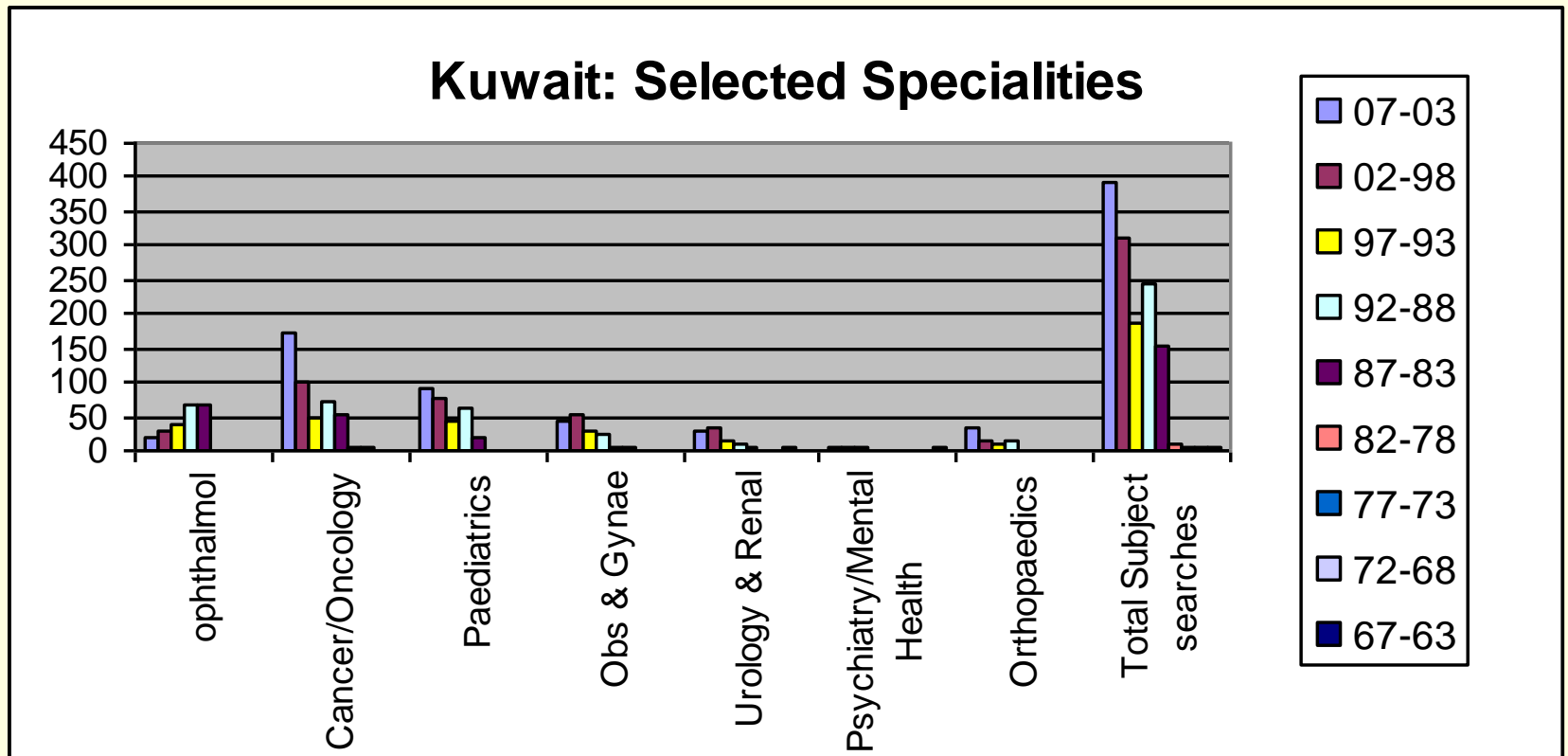


### Saudi Arabia: Temporal Trends

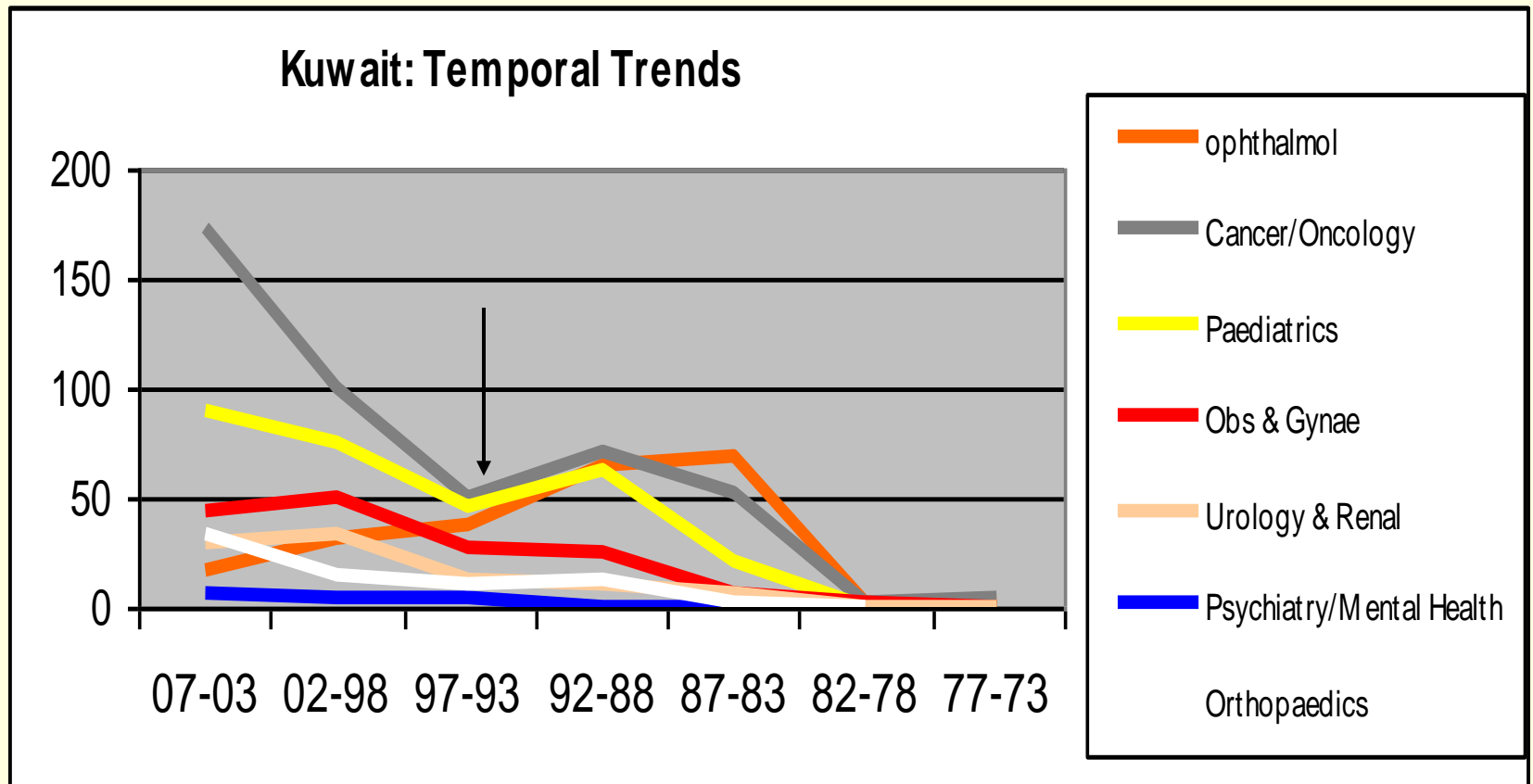


- ophthalmol
- Cancer/Oncology
- Paediatrics
- Obs & Gynae
- Urology & Renal
- Psychiatry/Mental Health
- Orthopaedics

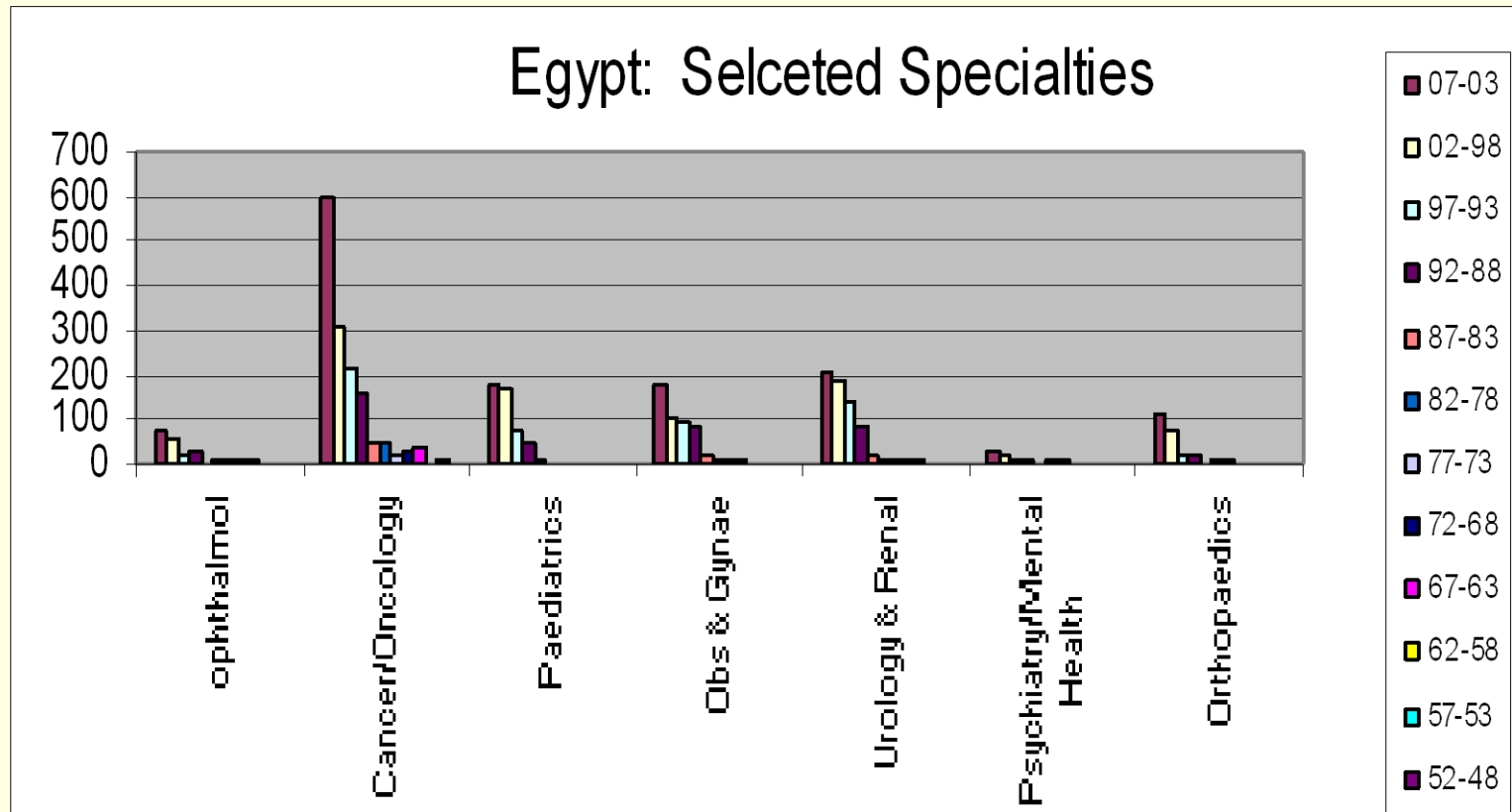
# Kuwait: Selected Specialities



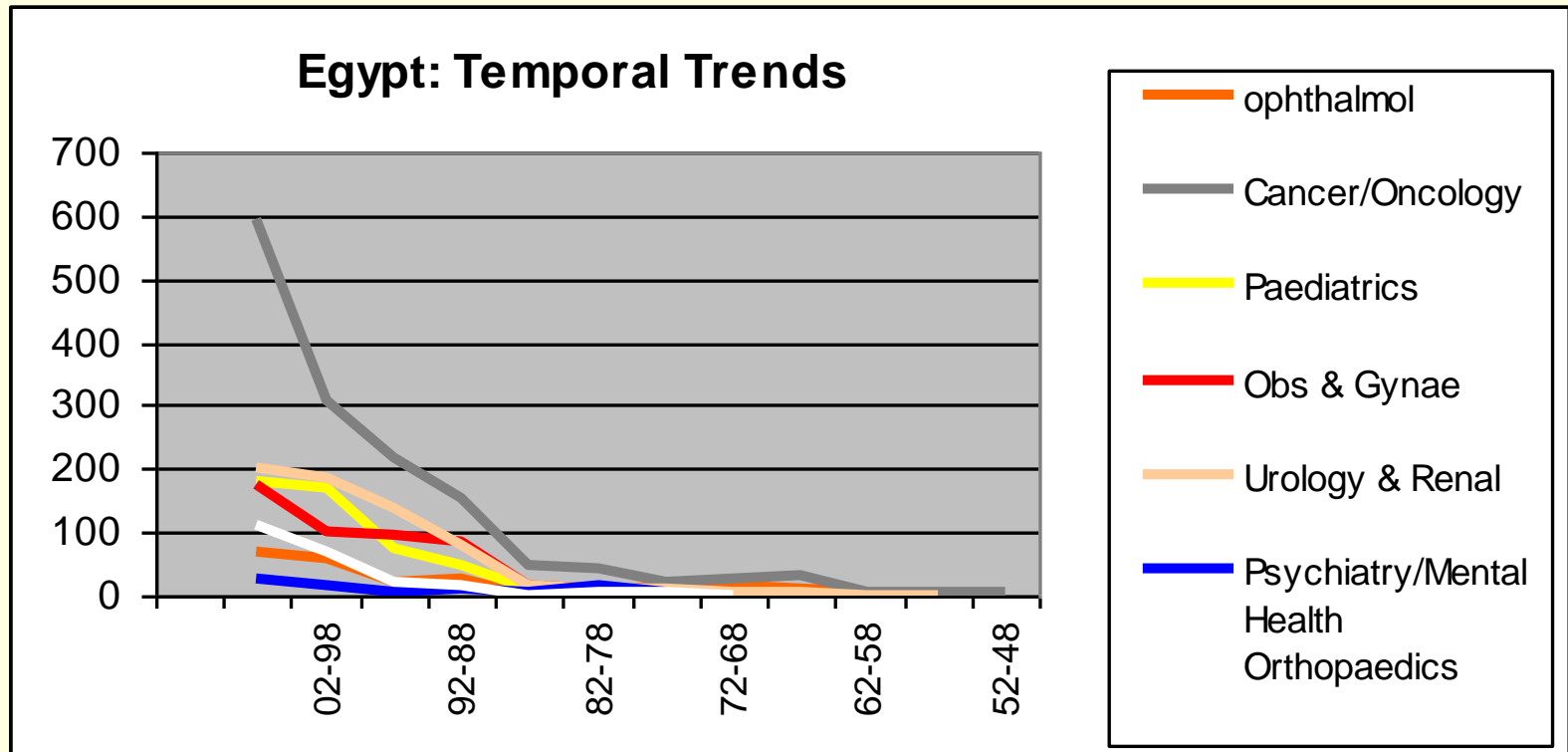
# Kuwait: Selected Specialities



# Egypt: Selected Specialities

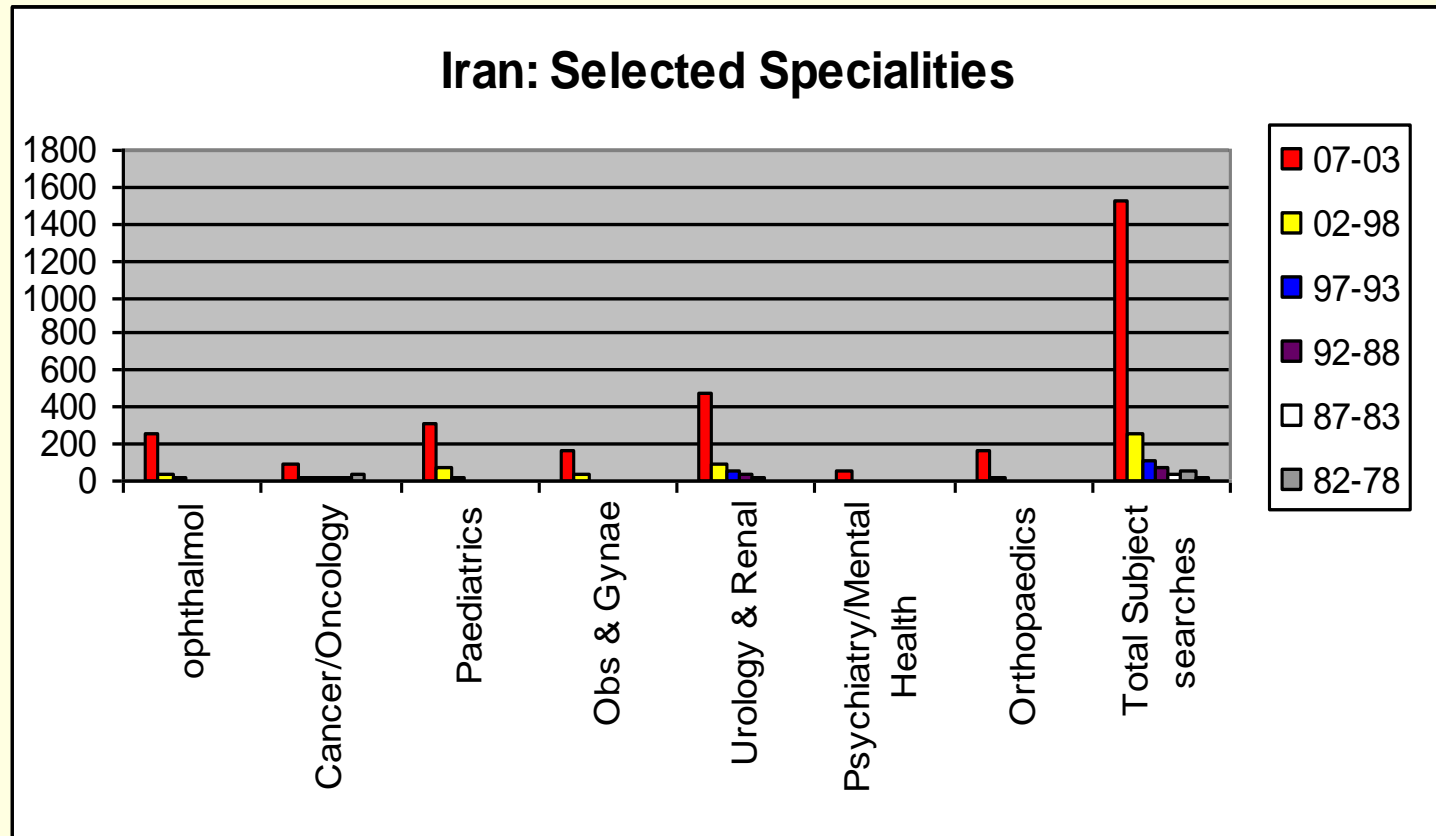


# Egypt: Temporal Trends

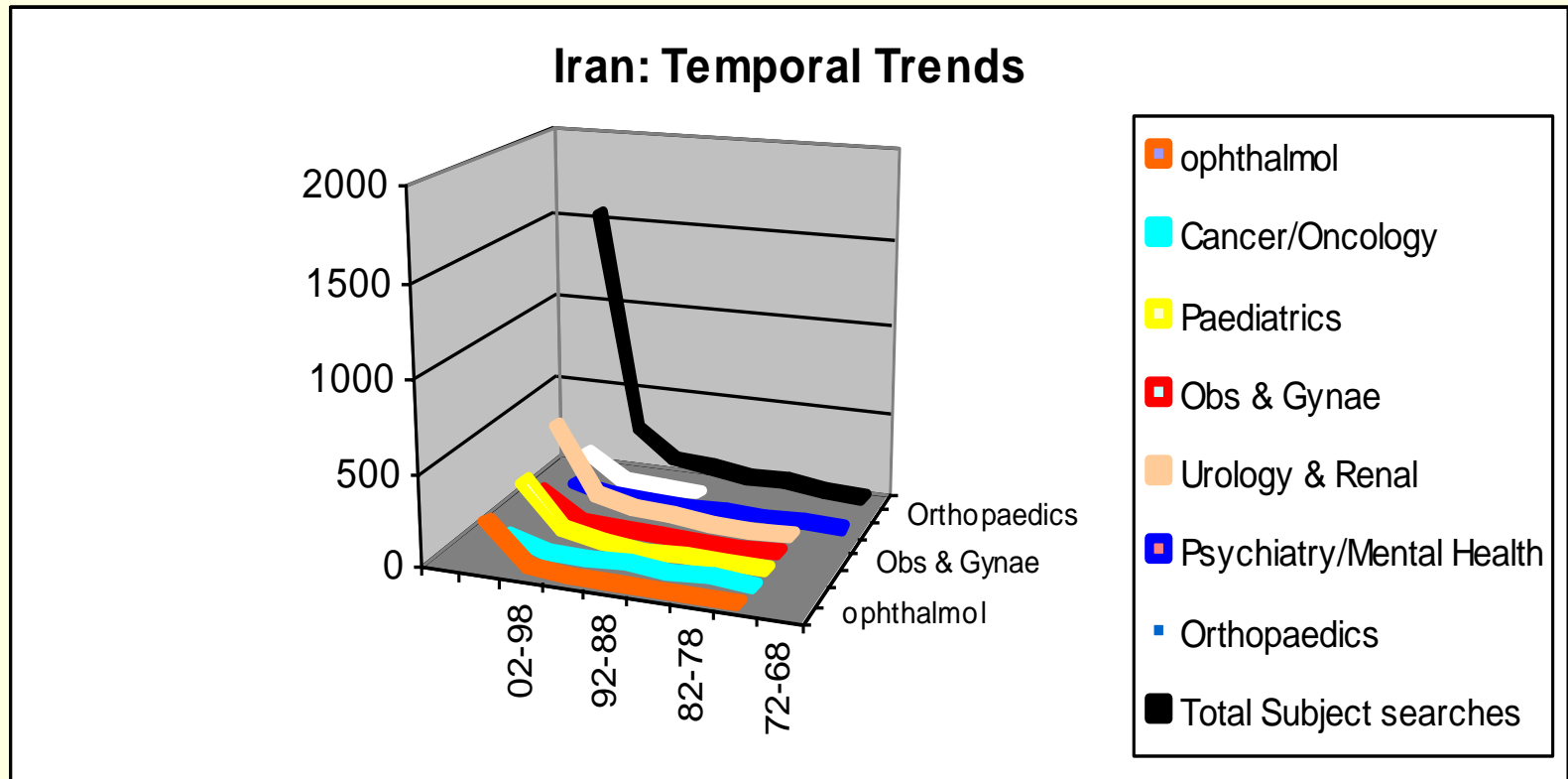




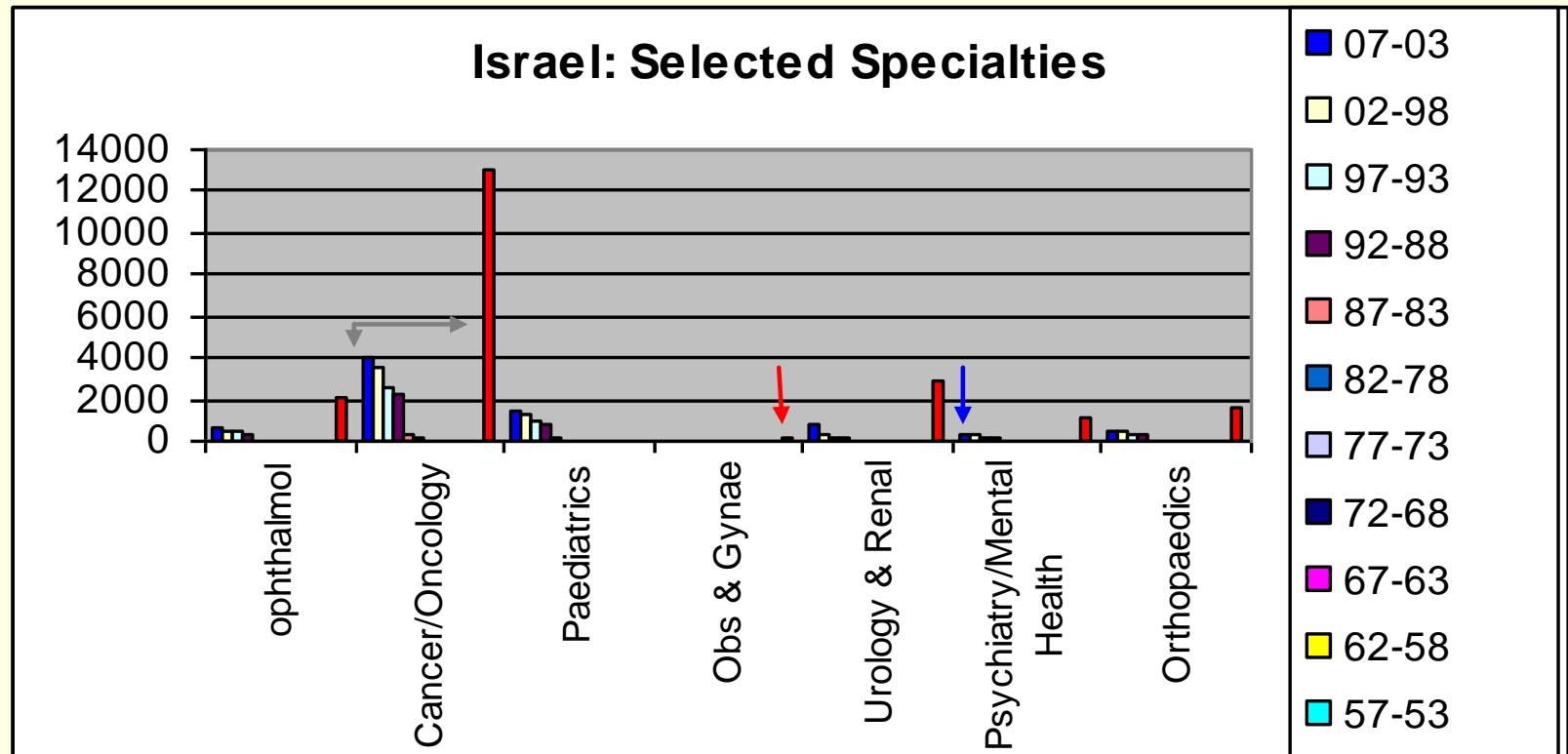
# Iran: Selected Specialties



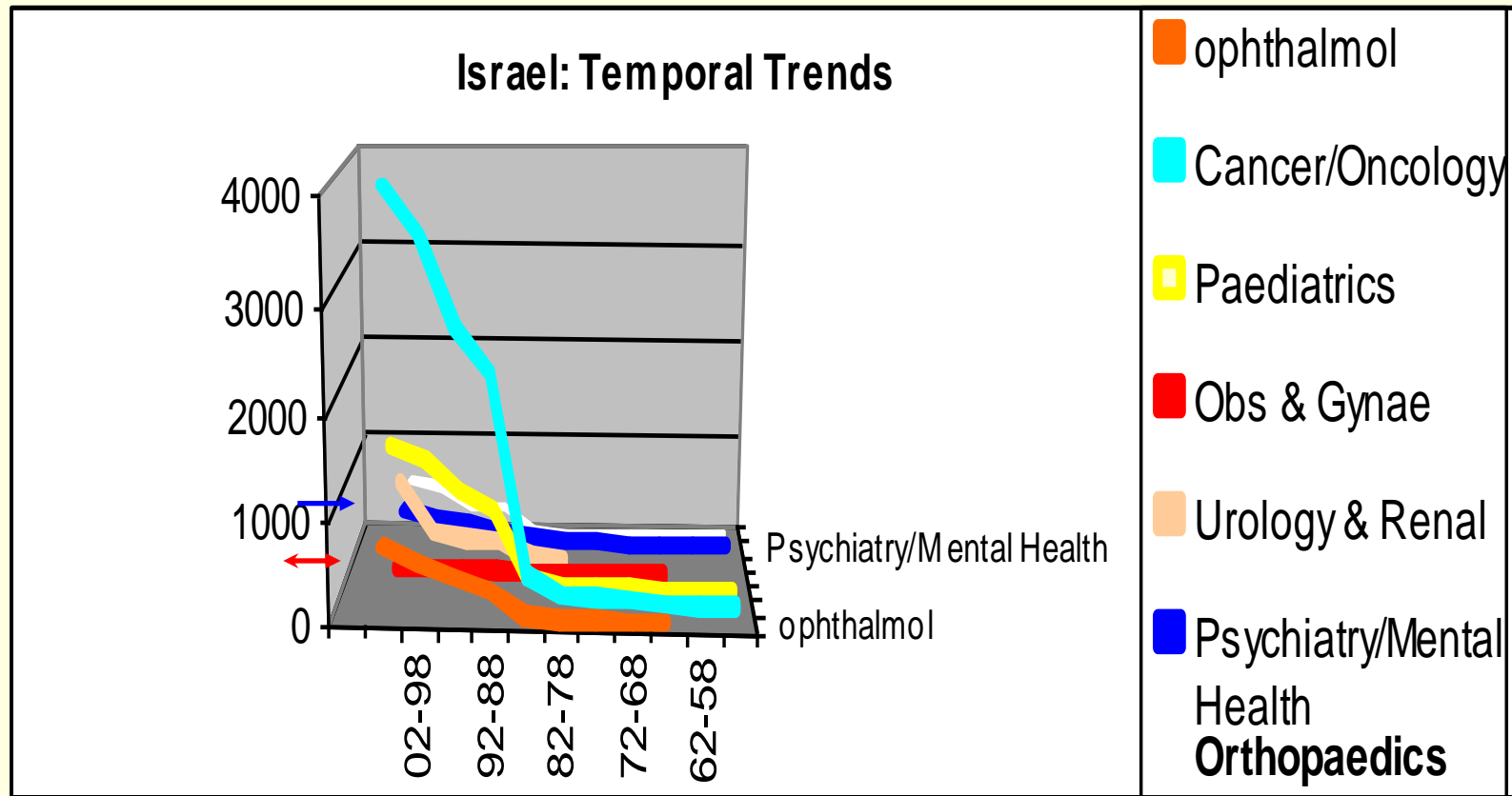
# Iran: Temporal Trends



# Israel: Selected Specialities



# Israel: Temporal Trends



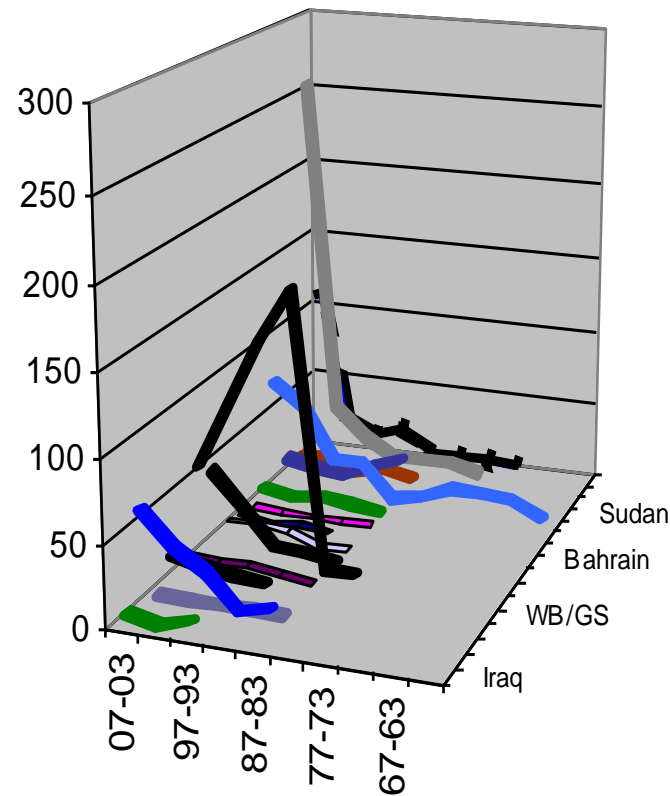


# Trends in ophthalmology in the Eastern Mediterranean

# Ophthalmology: Temporal Trends



## Ophthalmology: Temporal Trends MENA



- Iraq
- Lebanon
- Syria
- Jordan
- WB/GS
- S/Arabia
- Oman
- UAE
- Bahrain
- Qatar
- Yemen
- Egypt
- Sudan
- Libya
- Iran
- Pakistan

# Iraqi Universities

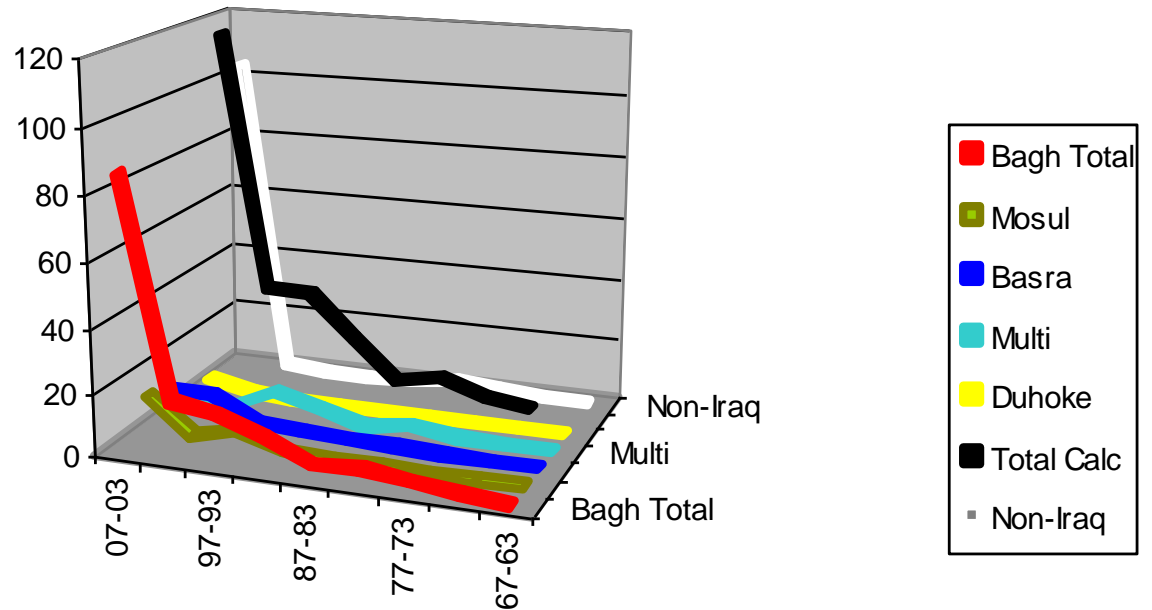


- Slow start in general
- Fluctuating
- Mosul and Basra both exhibit very similar patterns.
- Influenced by events.
- Some younger universities appears to start performing better than other.

# Temporal Trends for All Universities



## Iraqi Universities in Selected Specialties

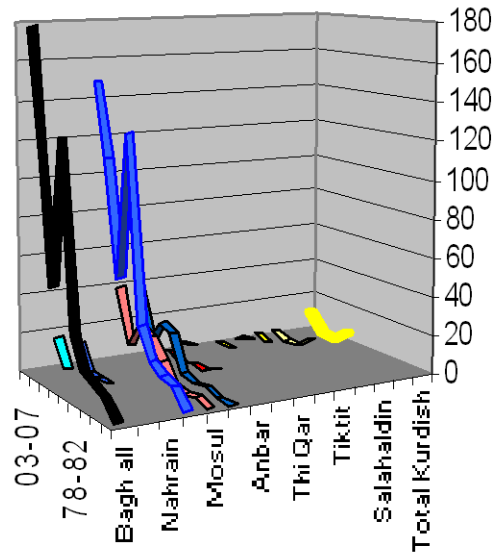




# Temporal Trends Iraqi Universities 1963-2007



## Temporal Trends in Iraqi Universities -Total Citations

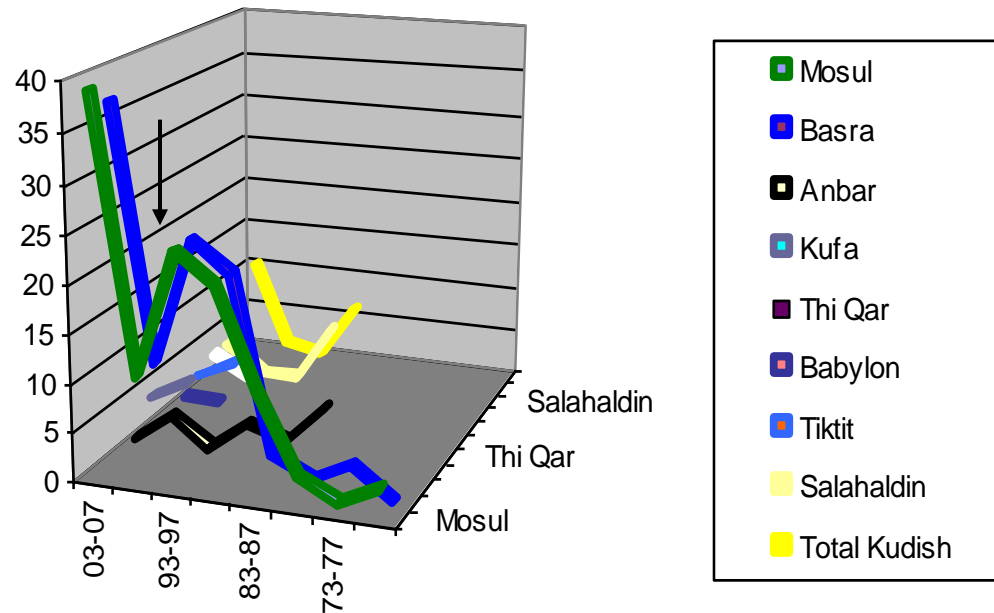


- Bagh all
- Mustansiriyah
- Nahrain
- baghdad Uni +
- Mosul
- Basra
- Anbar
- Kufa
- Thi Qar
- Babylon
- Tiktit
- Duhoke
- Salahaldin
- Sulaimani

# Temporal Trends: Universities Outside Baghdad 1963-2007



## Temporal Trends Iraqi Universities Outside Baghdad



# Results: Summary

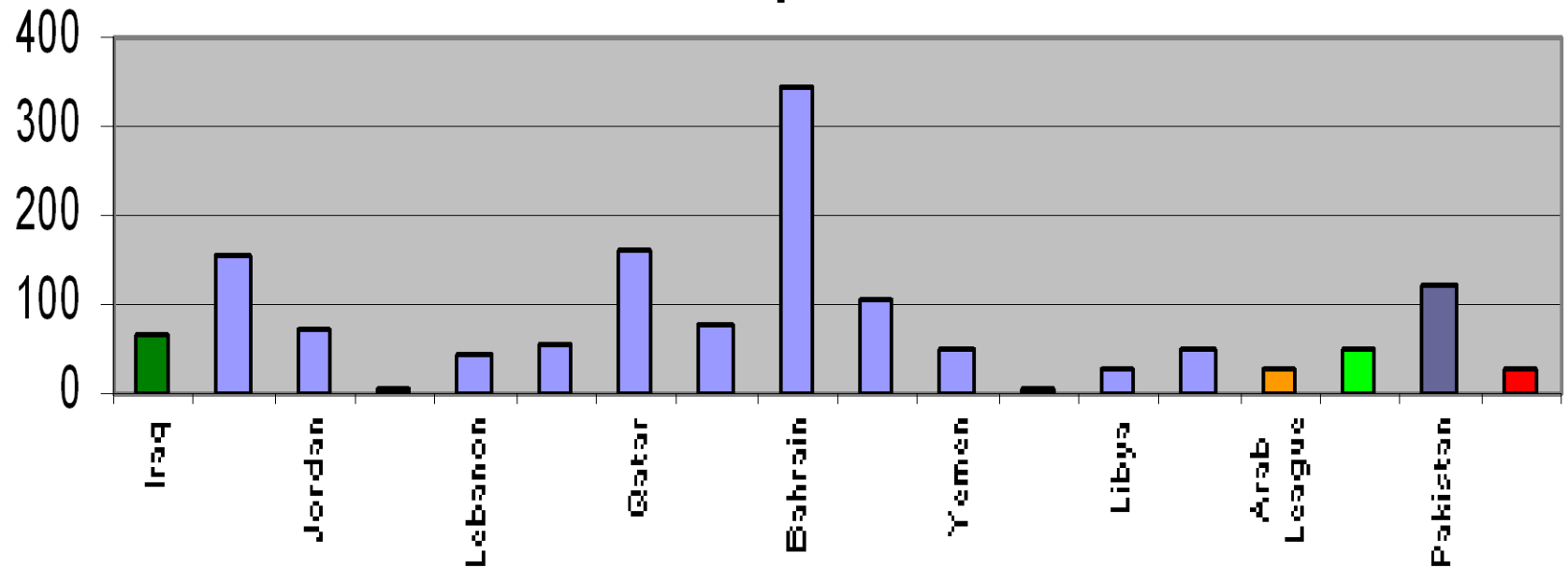


- Numbers of publications coming from Iraqi universities by Iraqi academics/practioners are far below those from EME.
- Less emphasis on important subspecialties such as ophthalmology, psychiatry and obstetric & gynaecology - shared by all MENA countries.
- Given the opportunity, Iraqis have the potential to produce a high standard of publications.

# MENA Citations



## MENA: Citations per 1000 doctors



# Why MENA under performing?



- Source of the problem? Multifactor.
  - Method of teaching:
    - Family and home?
    - Schools & Universities?
- Culture of 'spoon feeding' does not encourage questioning
- Conditions of service: absence of culture of research, remunerations, facilities.
- Imbalance between nat. health and private work.

# Recommendations: 1



- Important issue to be addressed.
- Emphasis is needed to promote high standard research/publications which should enhance our universities standing in the world of academia and this should be addressed in all these countries.
- This is a multi disciplinary task which requires involvement of academic institutions, authorities and academics/professionals.

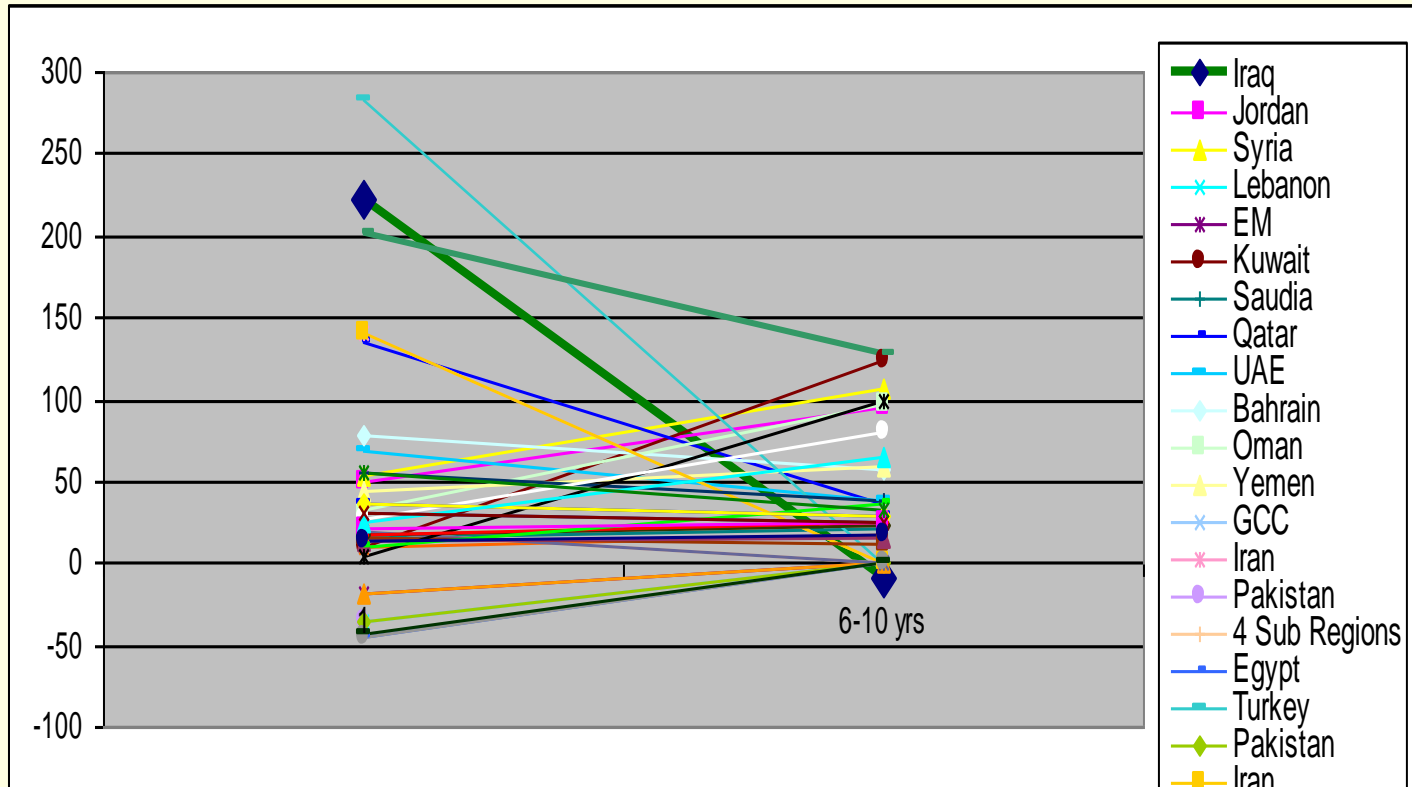
# Recommendations: 2



- **Additional measures** are needed such as:
  - Addressing morale amongst academics and scientists which has dropped progressively in the last 30 years through emmigration.
  - The use of the available manpower from diaspora in a visiting or emeritus capacity.
  - Twining with academic bodies abroad and increase exchange of experts, trainees and students elective.
  - Tele education.
  - Adequate funding.
  - ?

# Worldwide Patterns

## % increase





# Final sentiment



Iraq (and many MENA countries) have good potentials to achieve high standard of higher education, a must for any nation seriously seeking progress. A well thought off plan and proper coordination is needed as a high priority



*Thank You, Shukran, Spas*



**Presentation and paper will be available on:**

[www.jalili.co.uk/academic/presentations/HE\\_MENA\\_Jalili712r.pdf](http://www.jalili.co.uk/academic/presentations/HE_MENA_Jalili712r.pdf)



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Publications as a barometer of higher education:  
A comparison between Iraq and other regions.

Dr Ismail Kaidar Al-Jalili,  
FRCS, DO, FRCOphth  
**Consultant Ophthalmologist, UK**