How IOMP can help in global adoption and propagation of qualitative change in medical physics?

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Every patient to get benefit of medical physics

Global Scenario in medical radiation
United Nations Scientific Committee on Effects of Atomic Radiation (UNSCEAR) 2010

• 3.6 billion medical X-ray procedures/year
• About 35 million nuclear medicine examinations
• About 5 million patients radiotherapy treatments

How successful we are?

• In optimization in radiation therapy to more than 5 million patients annually
• In optimization in imaging to nearly 5 billion imaging procedures annually

Medical Radiation Protection

3.6 billion
≈300 million children

~Million
(radiology professionals, world wide)

Billions (patients)
Doing Training
Unattended Training material

Medical Radiation Protection

Position statements
Fluoro outside radiology
Top down & bottom up
Social media

Patient & Healthcare workers

Training Courses
+10 since 2002

Networks
Websites
Publications

Typically

• What to do? Research done by developed countries
• How to do? Actions developed by developed countries
• Adaptation process involved in wider implementation to developing countries
• Slow process (unimaginable)
• Role for various organizations

Numbers

• Assuming that everyone is a patient sometime the extension in numbers may not be much but Qualitative change is the issue
• To question ourselves "Are we attending to around 5 billion imaging exams?"

Overview

• What is Qualitative change in medical physics: Partly covered in Med Phys 3.0
• What can IOMP do?
  o Prepare medical physicists globally on what is coming
  o Global adoption (reduce the time gap in adoption)
The International Organization for Medical Physics

- Founded in 1963
- Members: 86 National (including AAPM)
- 6 Regional
- Corporate
- Representing over 26,000 Medical physicists worldwide
- NGO status with IAEA and WHO

What drives Qualitative change?

In professional performance for improving patient care

1. Qualitative research
2. Regulatory requirements
3. Trends in literature (communication)

Same data (numbers), same situation
Different response (Qualitative)

Same question to different doctors with same quantitative figures of reports
Medical physicists

- More emphasis on quantitative data
- Qualitative research: development of tools to deal with human variability

Change

- Follow-up of patients with Ka,r>5 Gy
- NCRP provided recommendations 10 years back!!!

What drives Qualitative change?
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What drives Qualitative change?
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1. Qualitative research
2. Regulatory requirements
3. Trends in literature (communication)
   1. IOMP communication Channels
      1. Formal (official journals)
      2. Qualitative change
         1. eMPW
         2. MPH
         3. Social media
         4. IOMP Newsletter, Newest (started April 2019)

Bounce rate

- The percentage of visits to your website where only 1 page was viewed.
- "bounce," means, they viewed a page of the site or a landing page but didn’t engage further.
- They didn’t click on links or view more pages.

<table>
<thead>
<tr>
<th>Industry</th>
<th>Open rate</th>
<th>Click rate</th>
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<tbody>
<tr>
<td>Education &amp; Trg</td>
<td>21.8 %</td>
<td>2.5 %</td>
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<tr>
<td>Health &amp; Fitness</td>
<td>20 %</td>
<td>2.2 %</td>
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<tr>
<td>Travel &amp; Transport</td>
<td>20 %</td>
<td>2%</td>
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<tr>
<td>Sports</td>
<td>23.8%</td>
<td>2.9%</td>
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<tr>
<td>Arts/Artist/Govt</td>
<td>≈ 26%</td>
<td>≈ 3.6</td>
</tr>
<tr>
<td>IOMP Newsletter</td>
<td>50.3 %</td>
<td>21.7 %</td>
</tr>
</tbody>
</table>
What we monitor & what we do?

- Top links clicked
- Subscribers with most opens
- Country/city of clicks
- Dates of clicks
- Campaign related versus without campaign
- Campaign management

### Official relationship with WHO

- World Health Assembly
- Executive Board meetings
- Publications of WHO

### IOMP plays role in

- Creating agenda
- Organizing training events
- Motivating professionals to collect data & publish
- Disseminating the work
- Provide expertise to international organizations
- Provide leadership in creating and propagating outreach programs.

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**Thank You**

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7/14/19