In the Name of God
The title of this panel is: Water and Health
Water Quality and Health

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Concept of **safe drinking water**

**Safe drinking water** is **treated water** that has been **tested for harmful and potentially harmful substances** and **has met drinking water quality standards**.
Drinking water quality - Guidelines/Standards

- Maximum Contaminant Level (MCL)
- Maximum Contaminant Level Goal (MCLG)
  - Physical
  - Biological
  - Chemical

Standard authorities

- International Guidelines (WHO, EPA, European Commission)
- National Standard (the first standard for Iran in 1966)
8.2 million out of 12.6 million deaths caused by the environment, are due to Non-Communicable Diseases (NCDs).

In 2018, the global cancer burden is increased to 18.1 million new cases and 9.6 million deaths.
Death statistics from diarrheal diseases due to inadequate drinking-water

842000 DEATHS
Are caused by inadequate WASH. (Water, Sanitation, Hygiene)

502000 / 842000 DEATHS
Are attributed to unsafe and insufficient drinking-water (61%).

Diarrheal diseases account for 1 in 9 child deaths worldwide

Source: WHO and UNICEF, 2018
In Iran:

More than 94% of the people have access to drinking water free from contaminants (Nitrate, fluoride and E.coli):

In urban areas: 97%

In rural areas: 86%

The most important challenge is:

No enough integrity in water management.

Source: http://www.emro.who.int
But in the whole Eastern Mediterranean Region:

Inadequate WASH (Water, Sanitation, Hygiene) conditions account for about:

► **80,000** annual deaths from diarrheal diseases.

► **71,000** annual deaths occur in Afghanistan, Pakistan, Somalia, Sudan and Yemen, where WASH conditions are highly deficient.
Emerging Pollutants and Carcinogens in Water

▶ Any **synthetic or naturally-occurring chemical**
  • pharmaceuticals,
  • personal care products,
  • pesticides,
  • industrial and household products,
  • heavy metals,…

▶ Any **microorganism that is not commonly monitored or regulated** (re-emerging diseases due to resistance to antibiotics)
Water and Health Panel

Topics of this panel:

<table>
<thead>
<tr>
<th>Topic</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water quality and health</td>
<td>Prof. Simin Nasseri</td>
</tr>
<tr>
<td>Water and infectious diseases</td>
<td>Dr. Patrick Smeets</td>
</tr>
<tr>
<td>Risk of anthropogenic substances in water</td>
<td>Dr. Nicole Nijhuis</td>
</tr>
<tr>
<td>Water management policies in Iran</td>
<td>Dr. Masud Tajrishi</td>
</tr>
<tr>
<td>Challenges of water quantity in Iran</td>
<td>Prof. Alireza Mesdaghinina</td>
</tr>
<tr>
<td>Water and disasters</td>
<td>Dr. Amir Hosain Mahvi</td>
</tr>
</tbody>
</table>
Thanks for your Attention