The problem
Systematic attacks on health
"Evidence collected by the commission leads to an overwhelming conclusion: government forces deny medical care to do us from a position control and affiliated areas as a matter of policy."
UN Independent international commission of inquiry

Following the adoption of the UNSC resolution 2286 which condemns attacks against medical facilities and personnel during conflicts, the rate of attacks on healthcare increased by 89% in Syria to reach a peak of one attack every 29 hours on a medical facility in 2017.

Engineering factors
- Building selection
- Strengthening of the building is frame
- Sand bags and external walls
- Windows and glazing
- Basements and foam ceilings
- Surrounding buildings
- Electric generators and fuel tanks
Engineering Factors

- Water sources
- Security
- Parking
- Entrance and exit
- Ventilation: heating, ventilation, air-conditioning.

Three models

1. Basement hospital, 71 hospitals
   Average cost is $150,000

2. Cave hospital carved into the side of a mountain, 4 hospitals
   Average cost is $700,000

3. Underground Hospital, 21 hospitals
   Average cost is $1.2 million
Three unique challenges

1-About 50% of the hospitals have no protection measures.
2-Bunker buster bombs, BETAB-500.
3-Chemical attacks.
No health workers have been killed from Ariel attacks in fully underground hospitals.