WMD
• Does it really make sense to talk about WMD?
In order to understand nuclear proliferation, you must understand the nature of nuclear technology and the ways we try to control it.

- Nuclear Energy
- Nuclear Weapons
- NPT and systems of control
CASE STUDY: IRAN AND JOINT COMPREHENSIVE PLAN OF ACTION

• After years of negotiations, in 2015 US, UK, Russia, China, France, EU (P5+1) and Iran signed the JPCOA.

• Iran:
  • limits centrifuges and phases out a specific type
  • limits uranium enrichment (no accumulation above 3.67%, and only 300 kg or less)
  • redesign and rebuild a heavy water reaction at Arak, transition to light water reactors
  • Accedes to NPT Additional Protocol and IAEA monitoring
CASE STUDY: IRAN AND JOINT COMPREHENSIVE PLAN OF ACTION

- P5+1
  - Lift all UNSC, multilateral and national nuclear-related sanctions
- Dispute resolution
  - If Iran or P5+1 think the other side is not in compliance, complaint is referred to Joint Commission
  - If Joint Commission fails to resolve after 15 days, complaint referred to Ministers of Foreign Affairs, which can consider for 15 days. Possibility of a non-binding opinion from Advisory Board.
  - If still no resolution, the UNSC must vote on a resolution to continue the lifting of sanctions. If any P5 member vetos, sanctions ‘snap back’
Multiple classes of weapons
- Asphyxiants: Chlorine gas
- Blistering agents: Mustard gas
- Blood agents: Cyanide
- Nerve agents: Sarin, VX
- Riot control: Tear gas (CS)
CHEMICAL WEAPONS

- Area effect
- Difficult to weaponize for non-state actors (Aum Shinryko tried)
  - Monitoring and non-proliferation managed by Organization for Prohibition of Chemical Weapons
- Dual use is still a problem!
- Syria and the red line?
BIOLOGICAL WEAPONS

• Ancient: flinging bodies of plague victims over walls
• Types
  • Bacterial agents: Anthrax
  • Viral: Smallpox, hemorrhagic fevers
  • Toxins: Ricin, Botulinum
BIOLOGICAL WEAPONS

• Not area effect: potential to boomerang
• Not legal under Biological Weapons Convention (1972/1975)
• Problem: How to enforce?
  • Soviets signed BWC, then cheated (Biopreparat)