

THE NUCLEAR MILIEU: AN EXPERIENTIAL LOOK

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NUCLEAR ARMS RACE

- ◉ 1945 US explodes A-bomb
- ◉ 1949 Soviets explode A-bomb
- ◉ 1952 US explodes H-bomb
- ◉ 1953 Soviets explode H-bomb
- ◉ 1955 Soviets test SLBM
- ◉ 1957 Soviets test ICBM
- ◉ 1958 US tests ICBM
- ◉ 1960 US tests SLBM

“GEE WHIZ” INFORMATION

- ◉ The Nagasaki A-bomb was 2000 times larger than the next biggest bomb at that time
- ◉ H-bombs are measured in megatons
 - 1 megaton bomb is 50 times larger than the Nagasaki A-bomb
 - H-bomb tested at Bikini Atoll (US) in 1954 was 14.8 megatons
- ◉ The Soviets tested more than 600 bombs in Kazakhstan between 1949 and 1965
- ◉ 1962 -77 above ground nuclear tests worldwide (by all countries)
- ◉ 1965 - Nuclear Test Ban Treaty signed

Almaty, Semipalatinsk, Kurchatov



Kazakhstan

1 - 8 March 1994



HOTEL IN ALMATY



YERT

TRADITIONAL
KAZAKH
DWELLING
MADE OF
WOOL



THE ROAD TO KURCHATOV



KURCHATOV CLINIC



EKG MACHINE



CLINICAL LABORATORY



KURCHATOV HOSPITAL



HOSPITAL HALLWAY



SEMIPALATINSK CLINIC #4



WOMEN'S DAY CELEBRATION



THE RETURN ~ SEPTEMBER 1994



HEALTH AFFECTS OF TESTING

- ◉ Malignant neoformations 2.5 times higher than the rest of the state (more frequent malignant tumor illness was NOT noticed among Hiroshima survivors)
- ◉ Leukemia death rate of 28 per 10,000 (USSR rate 9.2 per 10,000)
- ◉ Child mortality (up to age 15) increased by 3 times between 1975-1988
- ◉ From 1970-1985, life expectancy in Semipalatinsk decreased by 2.17 years while the rest of the world showed a significant increase (Balmukhanov)

MENTAL DISORDERS IN SEMIPALATINSK

- ◉ Psychic illness and oligophrenia occur 2-2.5 times more frequently in regions neighboring the test site than in the rest of the country
- ◉ Oligophrenia is observed especially frequently in people born after 1950
- ◉ In 1990 in Semipalatinsk, 2 psychiatrists reported that 15% of the children and 41% of the adults they examined who lived near the test site developed neuropathological disorders; compared to 3.3% of children and 5% of adults in a control region (Balmukhanov)

OLIGOPHRENIA

- ◉ In Soviet psychiatric practice, the term “oligophrenia” (Greek: small brain) is widely used although it is hardly ever used by psychiatrists in the West
- ◉ According to 1989 6th edition of RJ Campbell’s Psychiatric Dictionary, it is an alternative term for mental retardation

SUICIDE

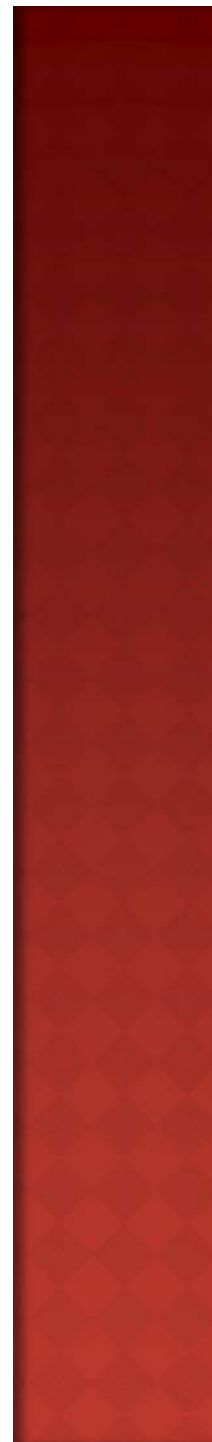
- ◉ Due to religious traditions and sense of responsibility for the family and ancestors, Kazakhs would never think to end their lives by suicide under any conditions. The Kazakh language does not have a word for suicide. Suicide occurs 5 times more often among residents close to the test site than those far away from the site.
- ◉ In Kainar, a village of 1800, 60km from the test site, 22 people hung themselves between 1981 and 1988 (Balmukhanov)

WHAT CAN WE EXPECT AFTER A NUCLEAR EVENT?

- ◉ PTSD
- ◉ Severe Fear Reactions
- ◉ Survivor Guilt
- ◉ Unknown Medical Consequences
- ◉ Psychological effects as serious as physical health effects
 - Study of 11 US atomic veterans-each developed identical psychiatric symptoms that they have been physically harmed by radiation exposure (Vyner)

HOW TO REDUCE PSYCHOLOGICAL EFFECTS

- ◉ Provide on-going, simple, consistent information
- ◉ Provide people with sense of control
- ◉ Plan for intervention at different levels
- ◉ Thoroughly educate public on activities in response to the event



WHAT SPIRITUAL ISSUES MIGHT ARISE?

- ◉ Fear
- ◉ Uncertainty
- ◉ Powerlessness
- ◉ Anger
- ◉ Turning to God
- ◉ Crisis of faith

POSSIBLE QUESTIONS

- ◉ How could God let this happen?
- ◉ Where is God in the midst of such suffering?
- ◉ How can people do this to other people?
- ◉ Is there a God, if something like this can happen?

AS A RESPONDER, HOW DO I HELP?

- ◉ Prepare now
- ◉ Listen well
- ◉ Don't give 'pat' answers
- ◉ Don't 'run' from the suffering
- ◉ Know what you can handle and what you cannot - when to refer and to whom

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OTHER SOURCES OF INFORMATION

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