

# REPRODUCTIVE HEALTH SITUATION OF PEOPLE WHO EXPOSED TO AGENT ORANGE CHEMICAL

**Tran Duc Phan, Trinh Van Bao et al**

*Medical Biology and Genetics Department, Hanoi Medical University, Hanoi, Vietnam*

## Abstract

**Introduction:** During the War in Viet Nam, from 1961 to 1971, 72 millions liters of herbicide was sprayed. The most concerning problem is that while some herbicides were produced, an unexpected by-product was created called dioxin. The question here is: how is the chemical's consequence in reproductive health? For answering this question, we carried out this study.

**Objectives:** (1) To describe situation of reproductive health related to exposure to war chemicals. (2) To describe characteristics of semen of males who effected with war chemicals.

**Methods:** To describe the situation of infertility and reproductive health, 22099 couples (in Thanh Khe district of Da Nang province, Phu Cat district of Binh Dinh province and Thai Binh province) were observed, 252 veterans exposed to Agent Orange and 110 others unexposed to Agent Orange were interviewed.

For describing characteristics of semen of males who effected with war chemicals, 1326 semen samples were analyzed.

**Results:** The rate of birth defects in Phu Cat (2.56%) are higher than that in Thanh Khe (1.68%) and Thai Binh (1.72%). The rate of some abnormalities in pregnancy and delivery in Phu Cat (10.64%) are higher than that in Thanh Khe (6.67%) and Thai Binh (6.24%). Such rate in Thanh Khe is higher than in Thai Binh. The rate of primary infertile in Thanh Khe (1.67%) higher than in Thai Binh (1.3%). The rate of infertile (primary and secondary infertile) in Thanh Khe (19.02%) is higher than in Phu Cat (10.22%). In 8 communes from Phu Cat and 3 communes from Thanh Khe: 70.69% of male partners in infertile couples had semen abnormality. High rate of azoospermia and high rate of oligospermia had been found in infertile male partners who lived in Phu Cat and Thanh Khe Districts: oligospermia 32.76%, azoospermia: 25.00%. In other places, these abnormality rates are lower. The rate of morphology abnormalities found in veterans who exposed to AO chemical (16.7%) is higher than veterans who did not expose to AO (9.4%).

**Conclusions:** In the areas were sprayed herbicides during the War, the rate of birth defects and some abnormalities in pregnancy and delivery, the rate of primary infertile are higher than in other places.

People who live in the areas exposed to herbicides during the War have the rate of abnormal sperm count higher than in other places.