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IMMUNIZATION AND HUMAN RIGHTS

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INTRODUCTION

Among fundamental human rights are:

- the right to life
- the right to health

- These two rights are very connected and they are also connected with the process of immunization

- Immunization is one of the most important achievements in medicine because introduction of vaccine saved millions of lives on the global plan.

„Almost 11 milion children die every year of preventable causes. Milions of people die when lifesaving vaccines and medicines exist , but do not get to those who need them because they or the countries they live in are too poor to pay for or distribute, them“.

(UN Secretary- General, Kofi Annan Statement to the 59th Commission on Human Rights, 20 March 2003, Geneva, Switzerland)



During the war in Bosnia and Herzegovina (1992-1995) different human rights were violated and also the right to life and right to health.

From the aspect of immunization, there were few problems:

- providing of necessary vaccines
- vaccines storage
- problems with the implementation of routine vaccination program

Consequences are visible today in a form of occurence of different vaccine-preventable diseases



AIM:

In this paper we will show the trend of vaccine-preventable diseases in people who were not vaccinated during the war

MATERIAL AND METHODS:

- It is a retrospective epidemiological study

- We used protocols and reports about vaccine-preventable diseases (measles, mumps,rubella)
- Period January 1994 – July 2014
- Place – Canton Sarajevo

Results:

BOSNIA AND HERZEGOVINA – facts:

- 51.129 km^2
- 4.613.414 inhabitants
- Two entities and one district




SLOVENIA
HUNGARY
Pécs
Zagreb
CROATIA
Karlovac
Sisak
Osijek
Vojvodina
(autonomous province)
Vukovar
Novi Sad
Slavonski Brod
Federation of Bosnia and Herzegovina
Prijedor
Republika Srpska
Banja Luka
Bihać
Inter-Entity Boundary Line (IEBL)
(Dayton agreement line)
Brčko
Bijeljina
Šabac
Belgrade
Ruma
Udbina
Ključ
Tuzla
BOSNIA AND HERZEGOVINA
Zenica
Serbia
Srebrenica
Knin
Glamoč
Sarajevo
Pale
Žepa
Užice
Šibenik
Federation of Bosnia and Herzegovina
Gorazde
Split
Mostar
Otok Brač
Otok Hvar
Ploče
Otok Korčula
Neum
Republika Srpska
Montenegro
Nikšić
CROATIA
Dubrovnik
Kosovo
Adriatic Sea
Podgorica
Tivat
Lake Scutari
ALBANIA
Bar
Shkodër
Scale: 1:2,270,000
Lambert Conformal Conic Projection, standard parallels 40°N and 56°N
0
40 Kilometers
0
40 Miles

- Health system organised on the entity and district level
- Primary, secondary and tertiary health care (institutions)
- Primary health care – municipality level
- Secondary health care – regional level
- Tertiary health care – entity level
- Routine immunization program – primary health care

Sarajevo - capital city of Bosnia and Herzegovina

- Cenzus 1991 - 416.497 citizens
- Estimate 2008 - 304.614 citizens
- Cenzus 2013 – 438 443 citizens

- The siege of Sarajevo was one of the longest in the history of modern warfare and the longest siege of one capital ever

- It lasted 44 months, from April 5, 1992 to 29 February 1996



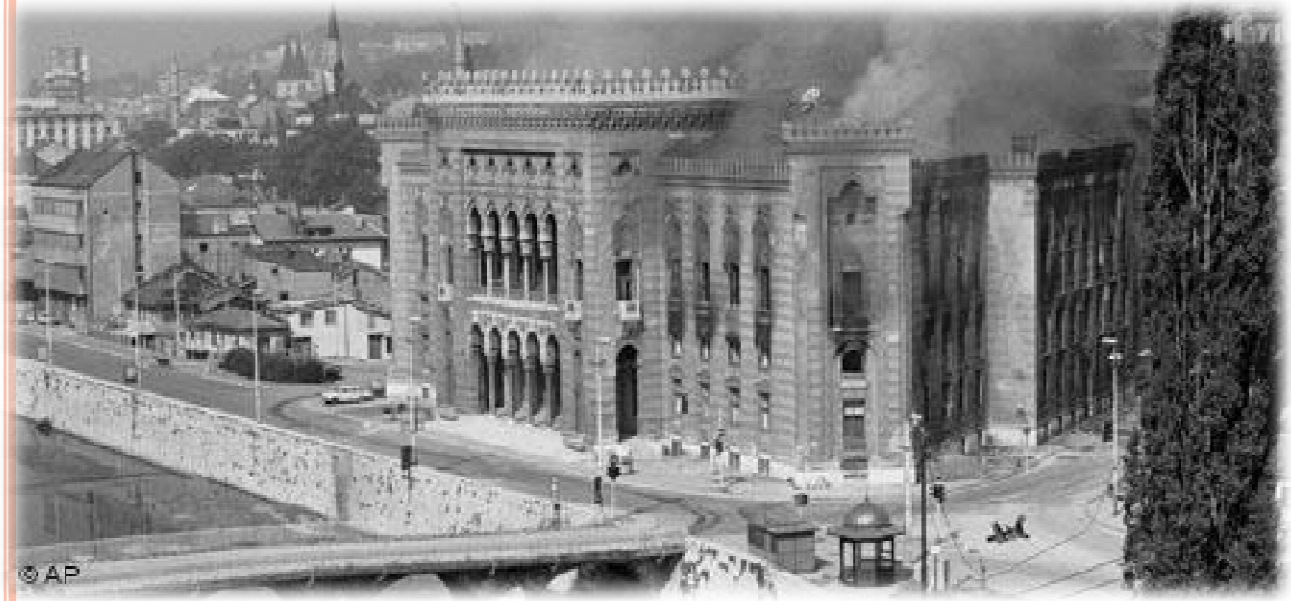



bife OTOKA






© picture alliance/dp


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- During the siege, the city was almost completely cut off from the rest of the country and the resulting shortages of food, electricity, gas, medicine and water
- Citizens were often exposed to sniper fire
- An average of 329 missiles fired at the city daily

IMMUNIZATION PROGRAM DURING THE WAR

Completely disrupted

- shortages of vaccines
- problems with maintenance of cold chain
- difficulty in bringing children to vaccination
- risky to bring children to vaccination

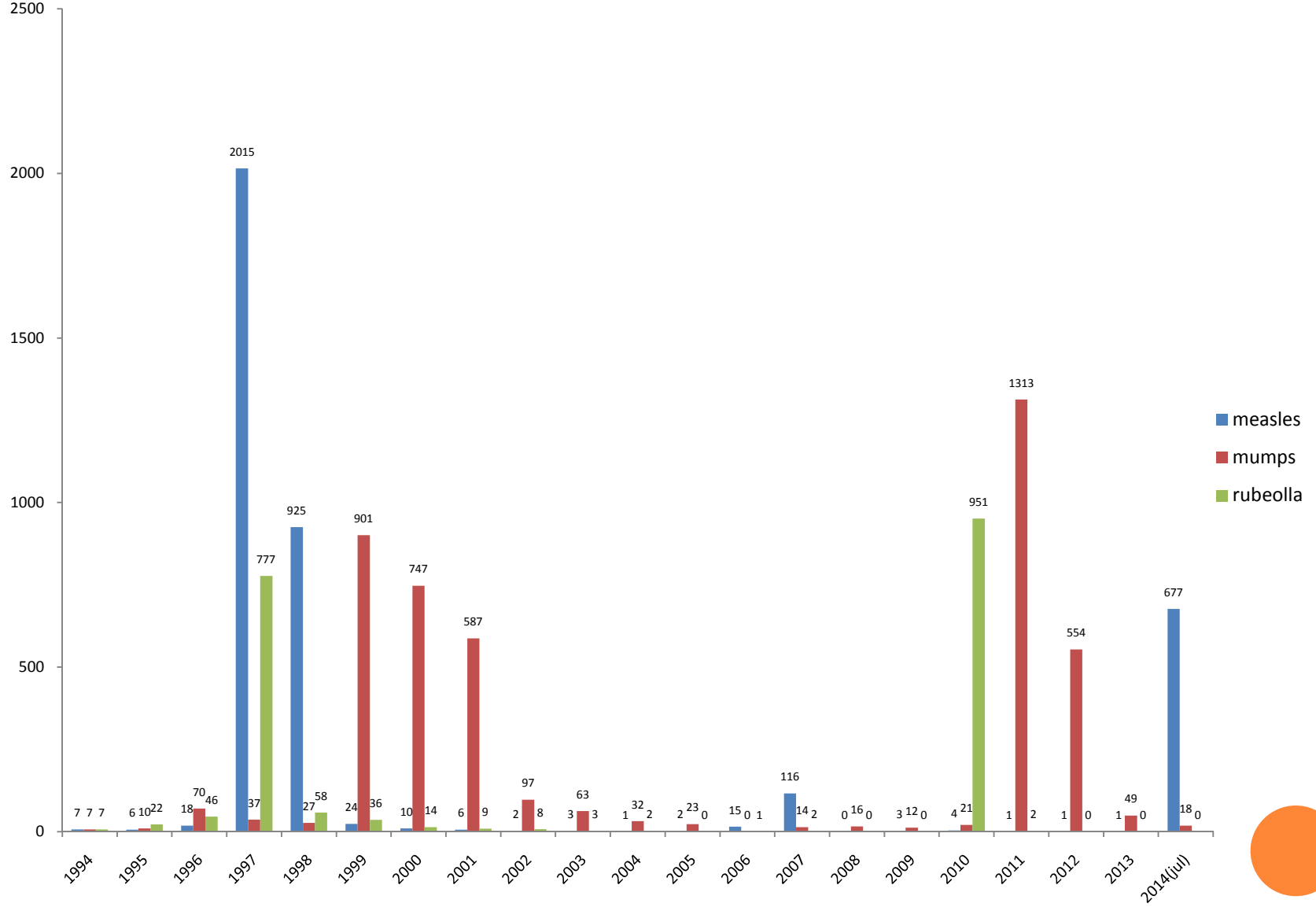
- a large number of children orphaned
- a large number of wounded children
- Immunization was neglected by parents, but also by health professionals

Vaccination against measles, mumps and rubella introduced in 1980

Schedule:

- First dose with 13 months of life
- Second dose with 6 years

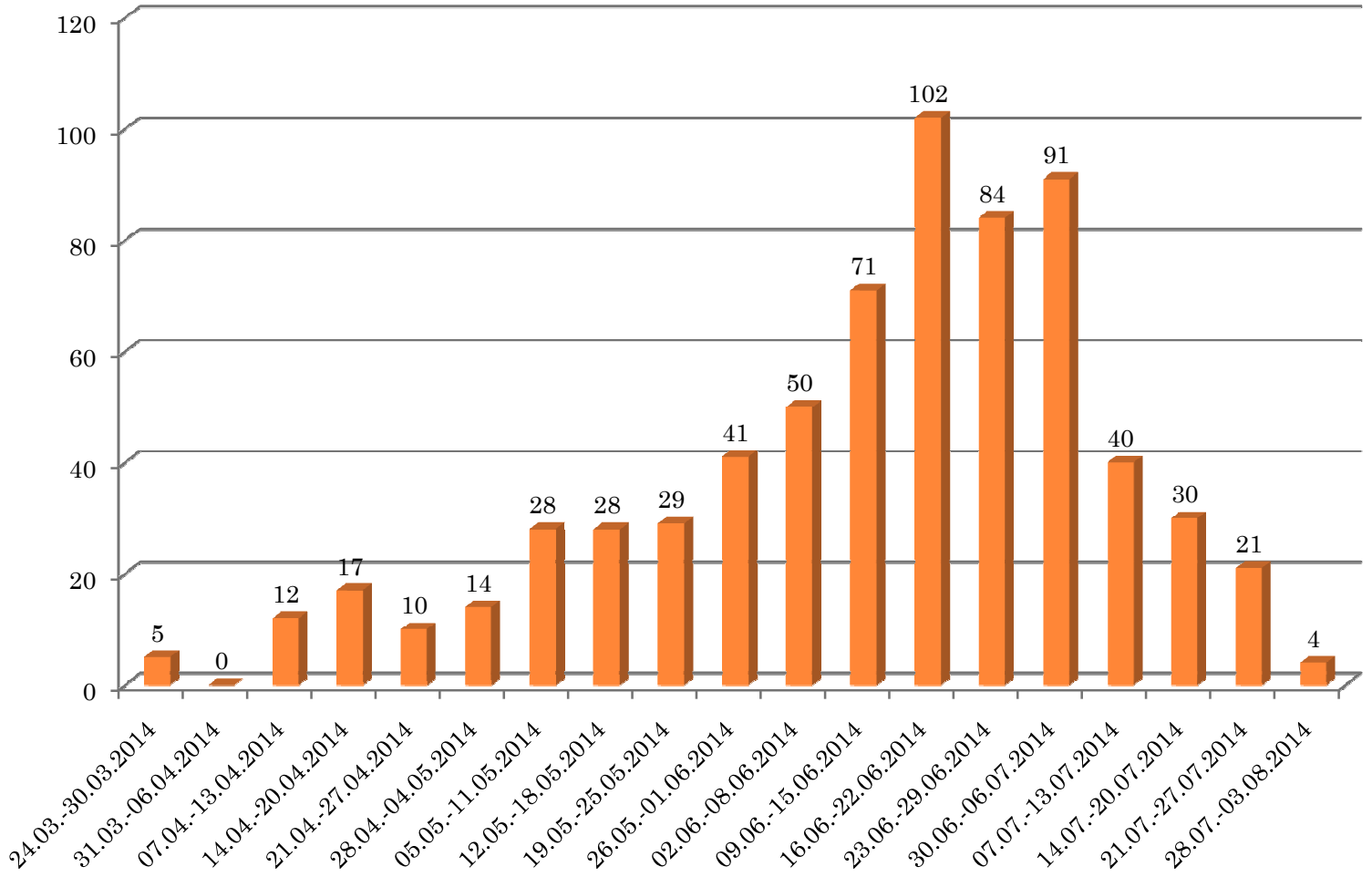
Graph 1. Measles, mumps, rubella January 1994- July 2014



MEASLES- OUTBREAK 2014

- First case: 26.3.2014 – still going on

Graph 2. Measles cases per week



Graph 3. Age distribution

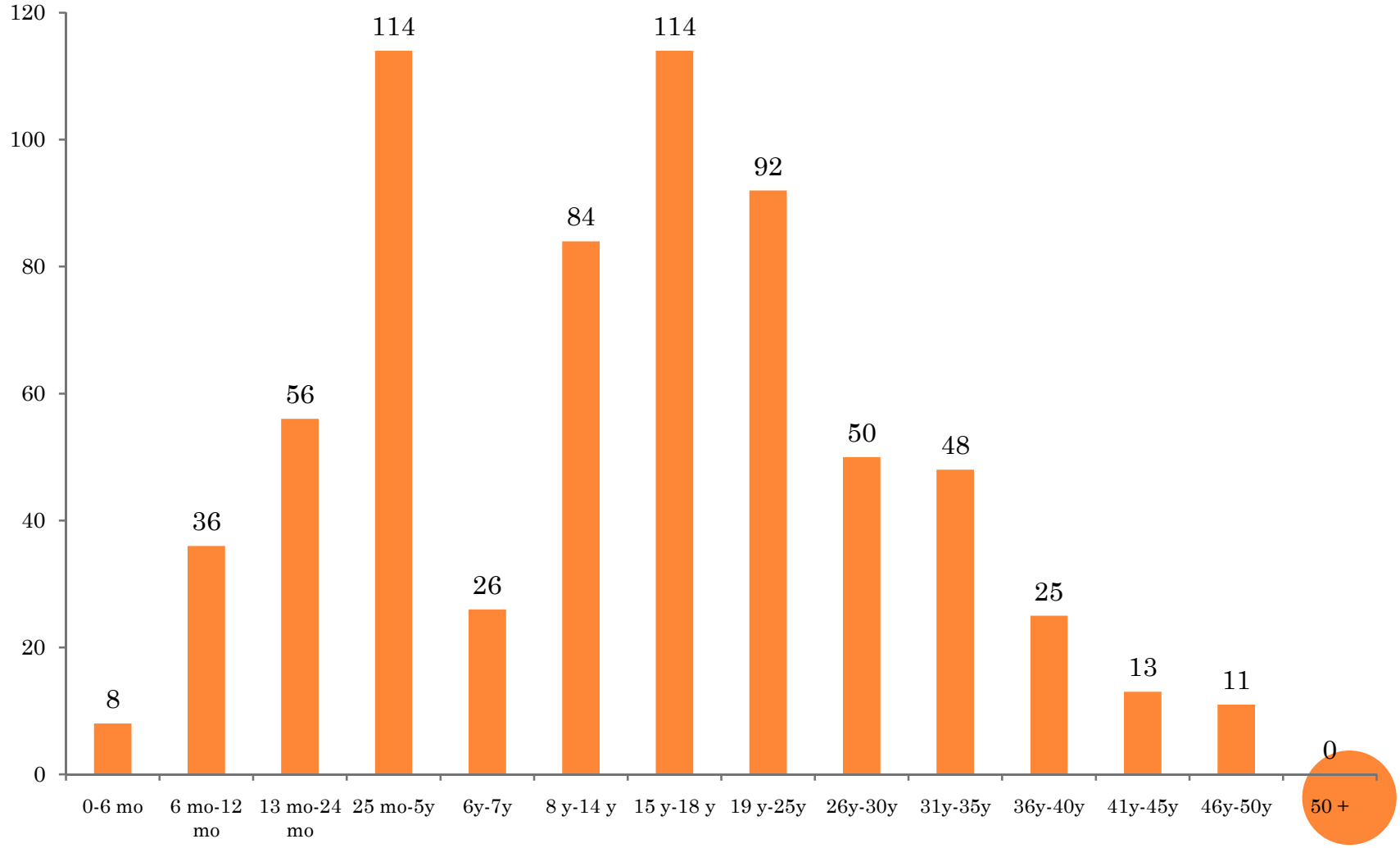
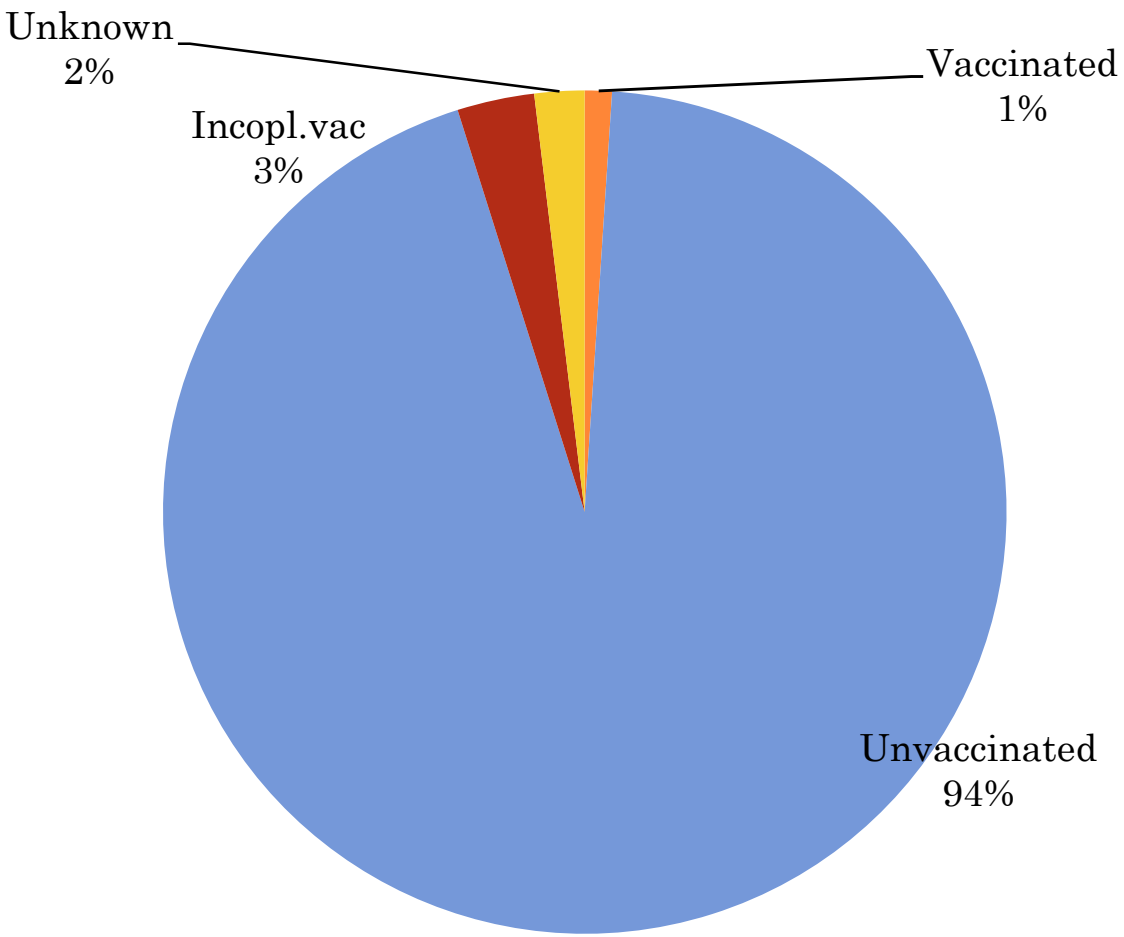


TABLE 1. VACCINAL STATUS

Category	Not vaccinated < 12 months and >36 years		Vaccinated – 1 dose 13 months-5 years	Vaccinated – 2 doses (could be completely vaccinated) 6 years -35years	Total
Number	76	41	170	414	701
%	17%		25%	58%	100 %

GRAPH 4. VACCINAL STATUS



THE POSSIBLE WAR IMPACT ON IMMUNIZATION

Table 2. Measles cases per categories

Categories	I	II	III	Total
Number	360	300	41	701
%	51%	43%	6%	100 %

I category – young people where war did not have any impact on immunization: 0-15 years

II category – people where war could have impact on immunization: 16-35 years

III category – older people where war did not have any impact on immunization: > 36 years

DISCUSSION

During the war health services are disrupted

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Health effects of the war are different

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- *Miller et all:Afgan refugee children and mothers. Arch Pediatr. Adoles.Med. 1994 Jul; 148 (7):704-8*

Big impact on child health

- *Cliff J, Noormahomed AR.The impact of war on children's. Soc.Sci.Med 1993.Apr; 36(7): 843-8*
- *Barath A. Children's well-being after the war in Kosovo: survey in 2000, Croat Med J 2002 Apr; 43(2):199-208*
- *Michael Rieder,Imti Choonara,.Armed conflict and child health, publiched online Mar 9, 2011*
- *Agadjanian V, Prata N. Civil war and child health: regional and ethnic dimensions of child immunization and malnutrition in Angola. Soc Sci Med 2003 Jun; 56(12):2515-27*

The impact of the war on immmunisation coverage is known

- *Cetorelli V. The impact of the Iraq War on neonatal polio immunisation coverage: a quasi –experimental study.J.Epid.Comm.Health 2013, Nov 23*
- *Vargha D.Between East and West:polio vaccination across the Iron Curtain in Cold War Hingary, Bull.Hist.Med 2014, Summer; 88(2):319-43*
- *Mashal T et all. Impact of conflict on infant immunisation coverage in Afganistan: a countrywide study 2000-2003.Int J Health Geogr.2007 Jun 7; 6:23*



Measles are a frequent consequence

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- *Aaby P et all. Survival of previously measles- vaccinated and measles unvaccinated children in an emergency situation: an unplanned study. Pedij Infet. Dis J.2003. Sept; 22(9): 798-805.*
- *Hukic M et all. An outbreak of rubella in the Federation of Bosnia and Herzegovina between December 2009 and May 2010 indicates failure to vaccinte during wartime (1992-1995). Epidem. Infe 2012 Mar; 140(3):447-53*



Conclusion

- 43% of measles cases can be associated with war
- Nearly 20 years after the war we feel the consequences of it

- **In all emergencies and crises, it is necessary to pay attention to immunization as a preventive measure important for the future of each country**

- **Security within a country is an important factor for affecting the delivery of immunization services**

- Immunization is a human right
- In order to respect this human right every country must make efforts



Thank you!

