Effectiveness of Universal Hepatitis A Immunization of Young Children in Minsk City, Belarus: Four-Year Follow Up

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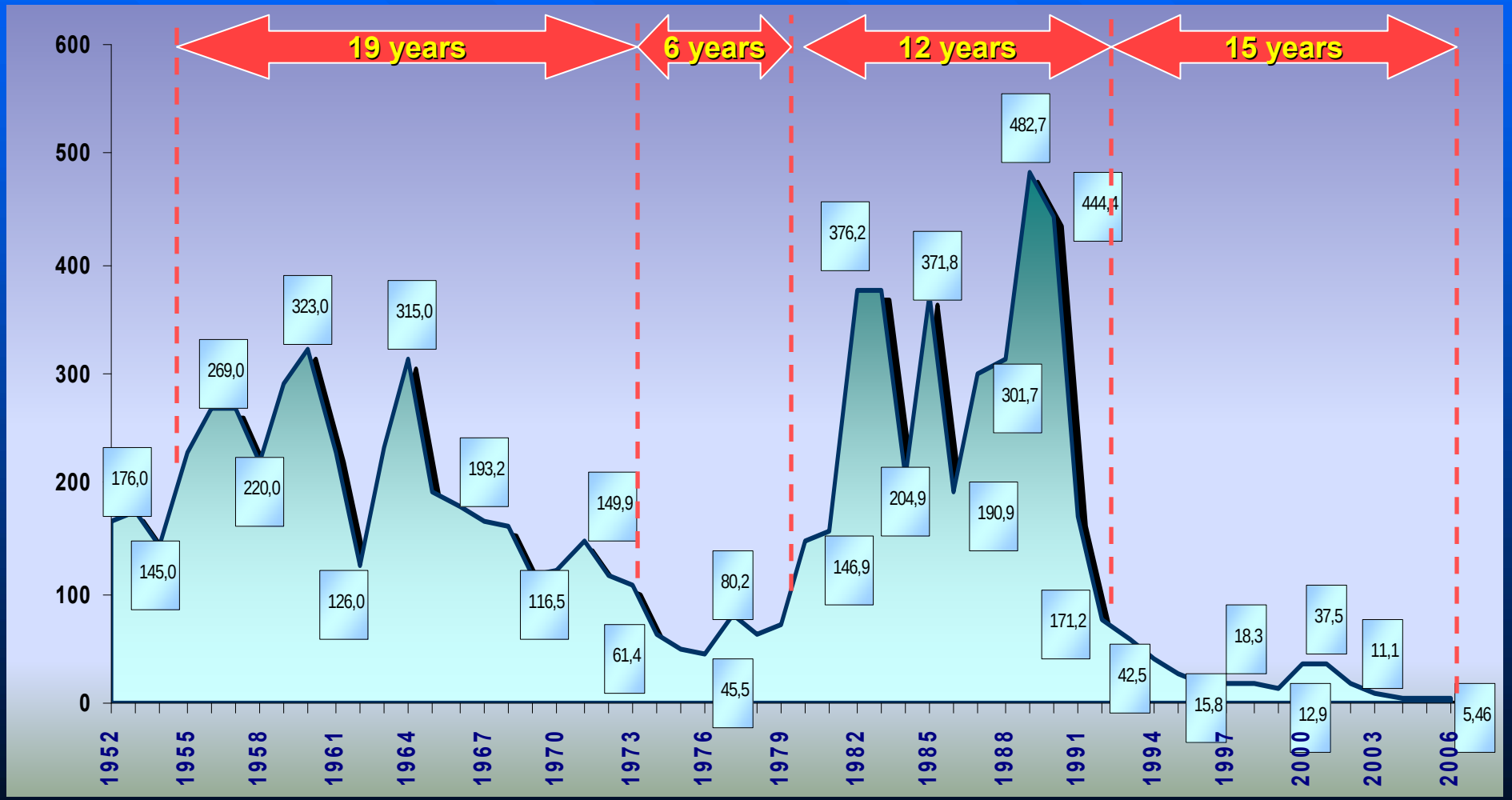
Hepatitis A Morbidity in Minsk City During the Last 50 Years (per 100,000 population/year)

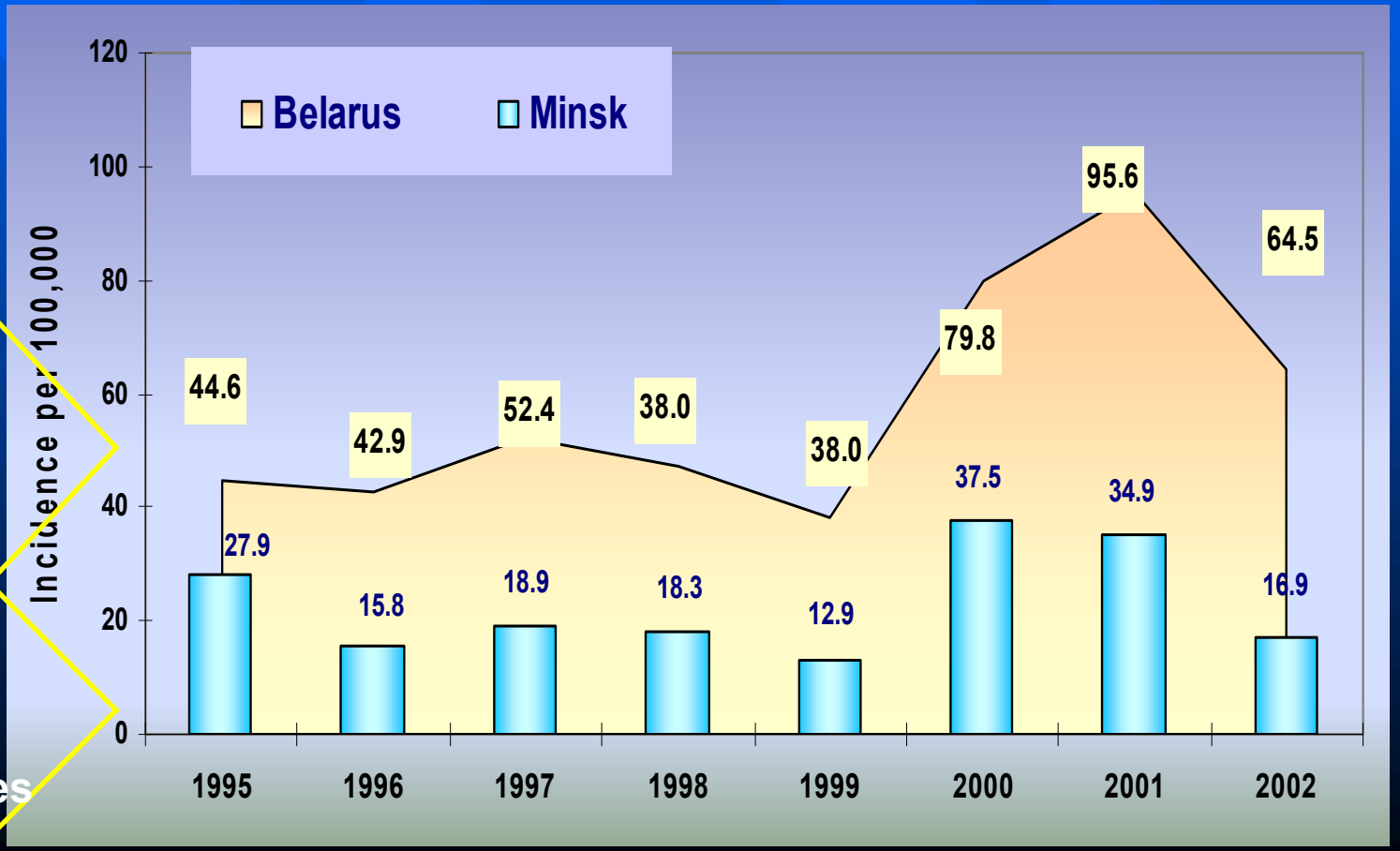


Rationales for Introduction of Hepatitis A Vaccination (1)

- A significant increase in incidence was observed in 2000-2002 in Minsk city and all of Belarus

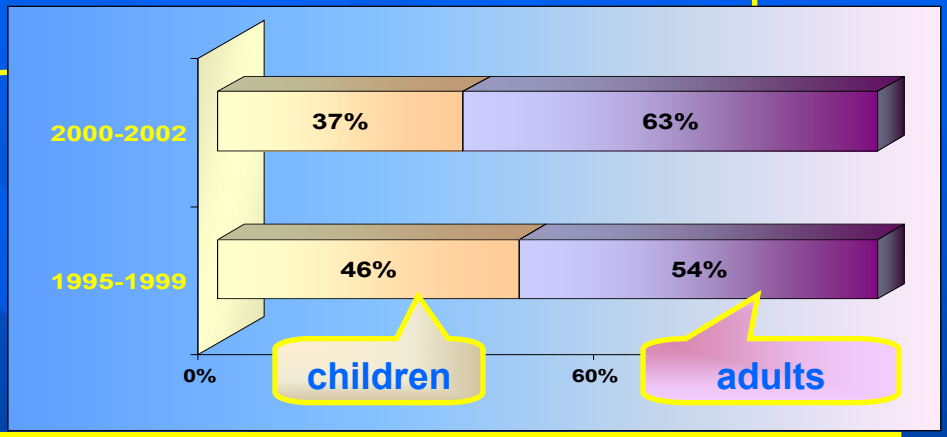
Increase of moving average of incidence in Belarus by 1.9 times

Increase of moving average of incidence in Minsk by 1.6 times



Rationales for Introduction of Hepatitis A Vaccination (2)

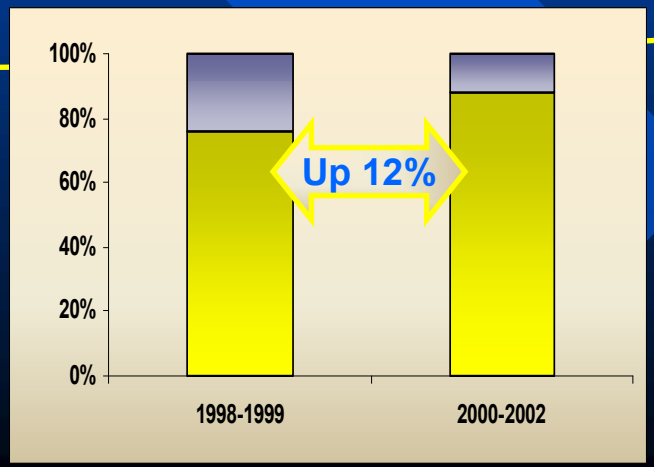
- Increase of proportion for adults in the age profile of Hepatitis A incidence

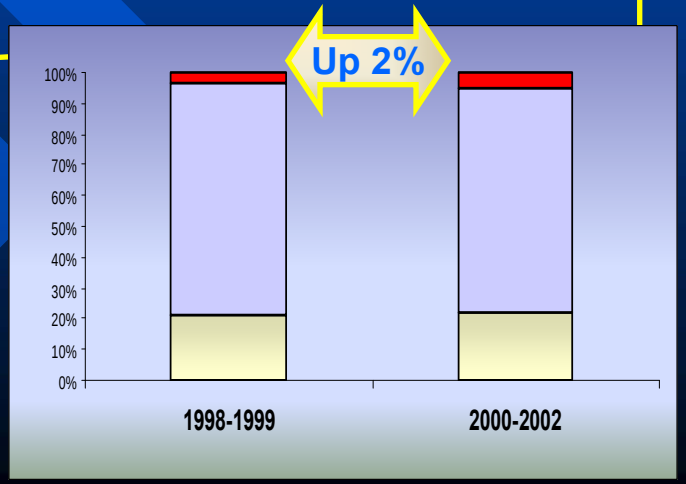


- Increase of proportion of jaundice and severe forms of Hepatitis A

Jaundice forms

Severe forms





Program of Hepatitis A Vaccination in Minsk

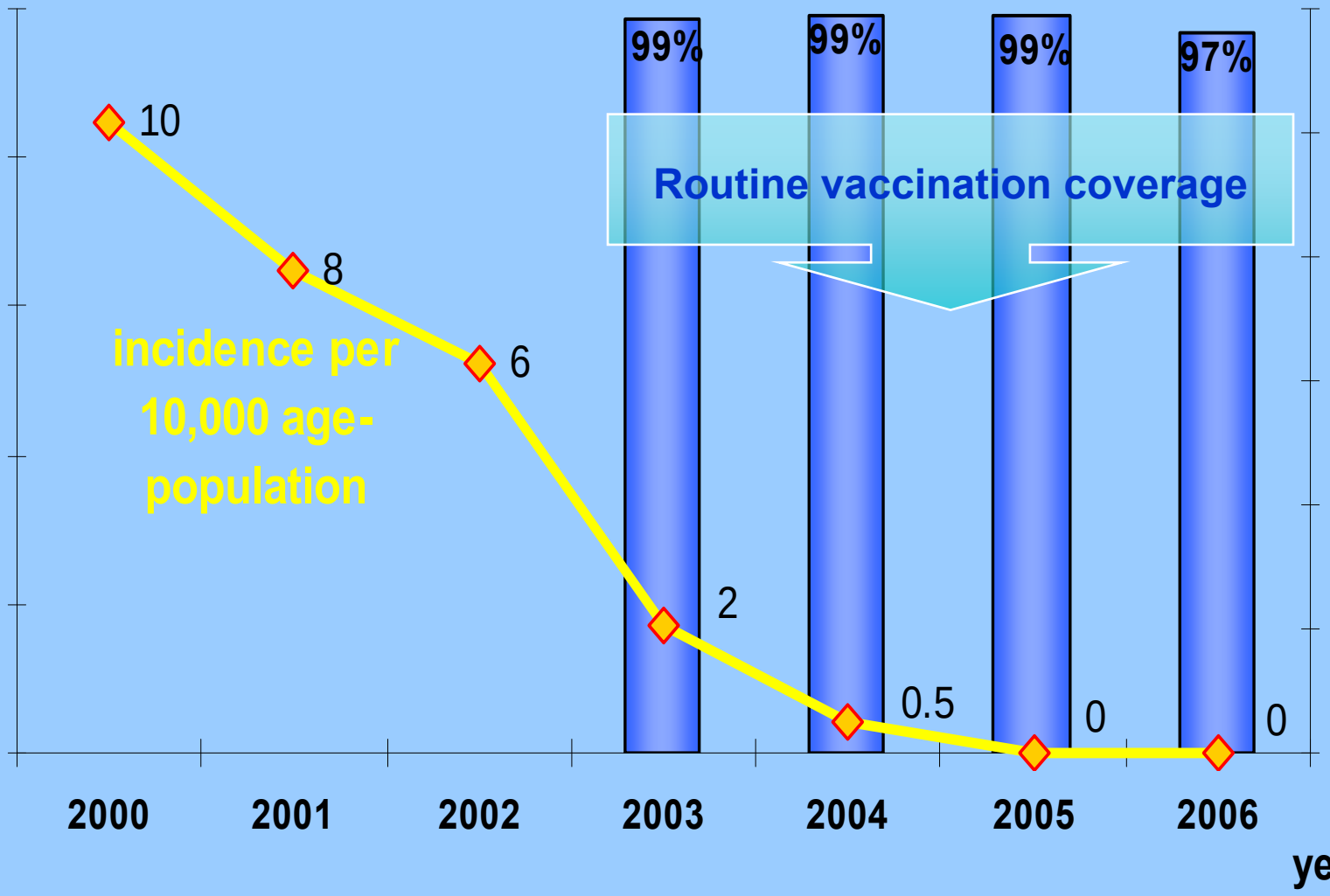
Universal vaccination	6 y.o. children before entering primary school (launched in 2003)
Vaccination of risk groups	Community dwelling children and teenagers 6-13 y.o. (launched in 2005)
	Adults of epidemiologically significant professions for HAV transmission (launched in 2005)
Outbreaks control	Children and adults in outbreak sites (launched in 2004)

Study Objectives

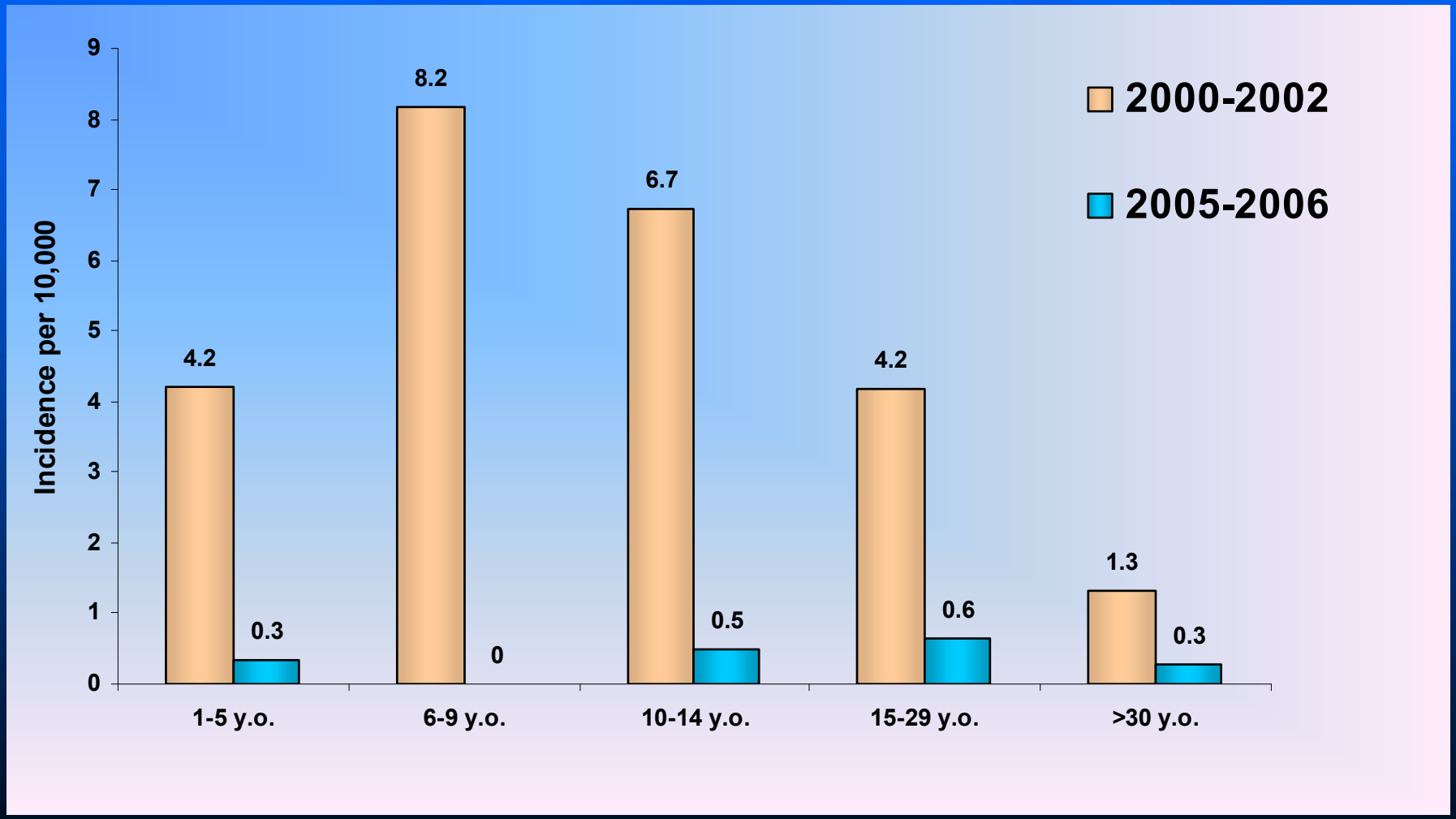
- To evaluate a short-term impact of universal Hepatitis A vaccination of children 6 years of age

- To document Hepatitis A seroprevalence in different age groups

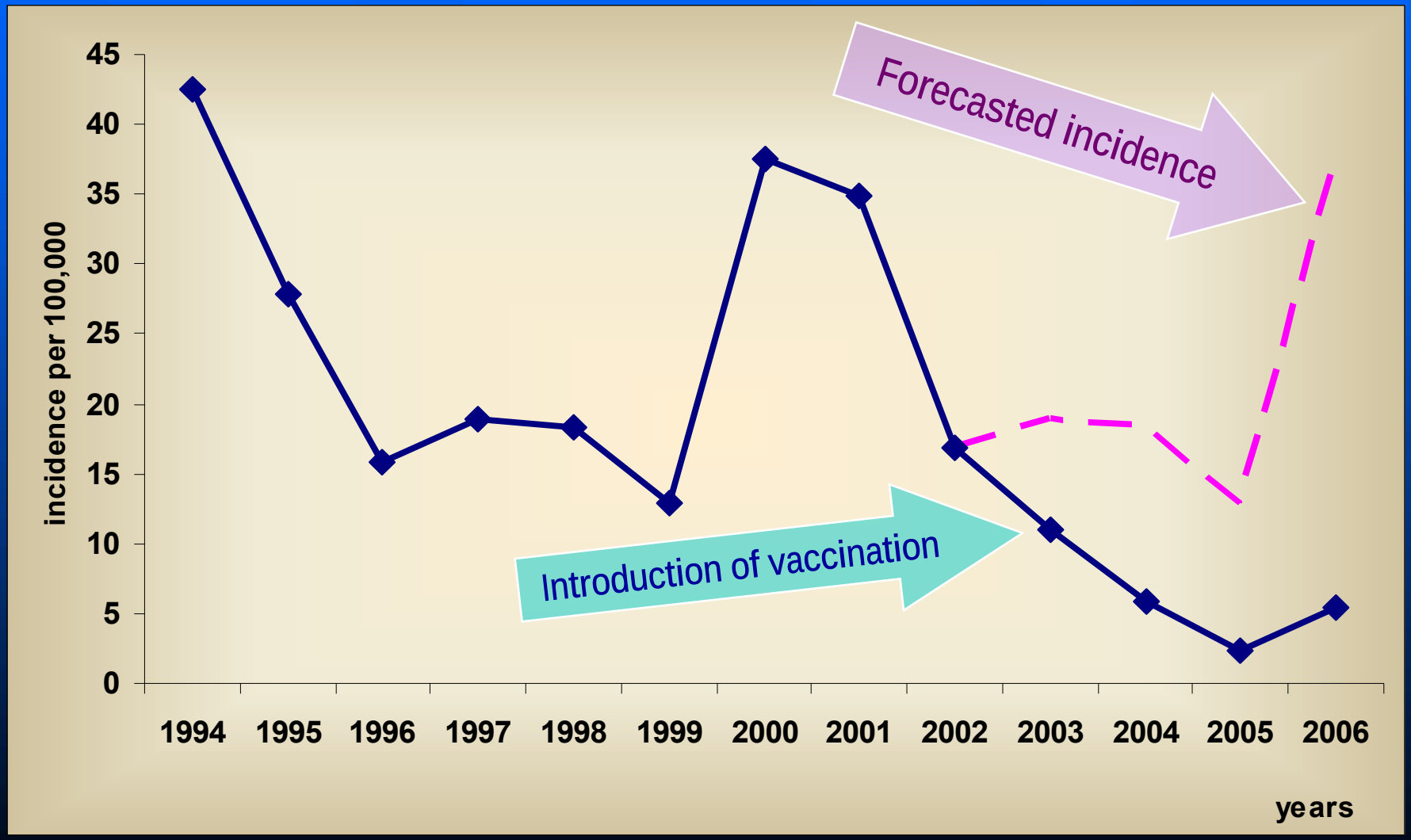
Effectiveness of Universal Hepatitis A Vaccination of 6 Years Old Children



Herd Immunity:
Decrease of Incidence in All Age Groups



Hepatitis A Morbidity in Minsk: Forecasted and Factual Incidence

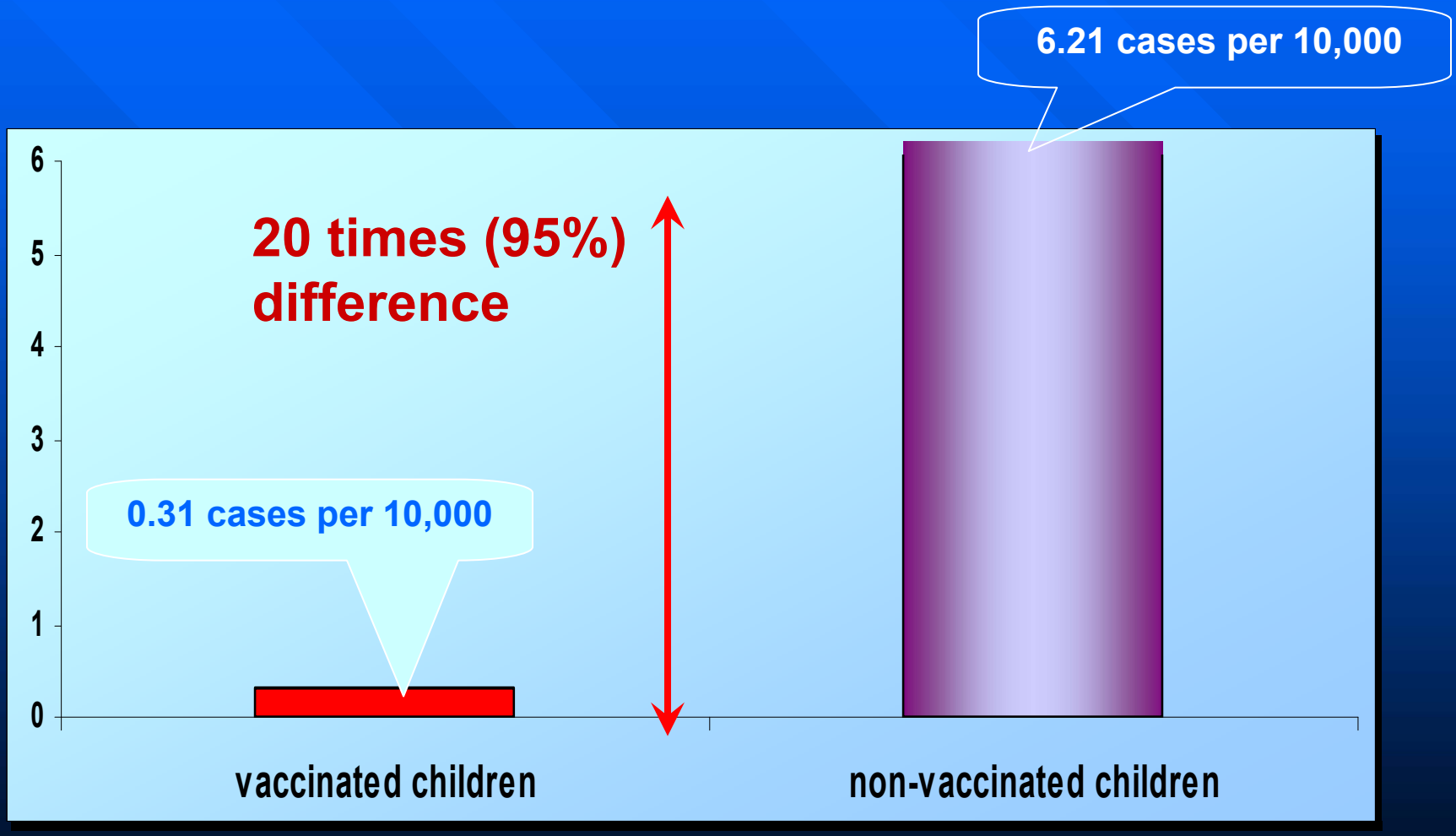


Hepatitis A Incidence in Vaccinated vs. Non-vaccinated Children 1-17 Years of Age (2003-2006)

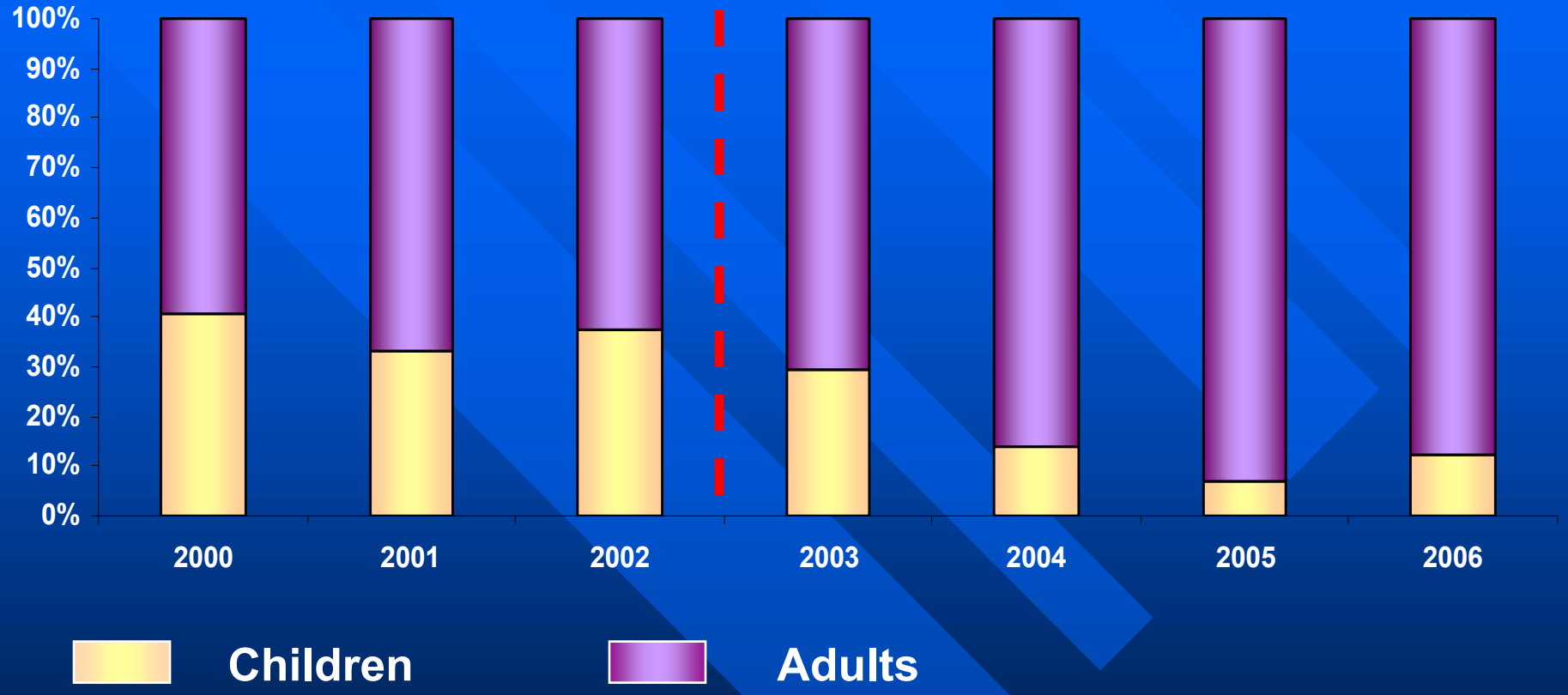
	Number	HA cases	Index per 10,000
Vaccinated	65,171	2 *	0.31
Non-vaccinated	210,900	131	6.21

* Two cases of Hepatitis A occurred in children who were vaccinated within 14 days after exposure to HAV, so they probably were in the incubation period of the infection

Effectiveness of Hepatitis A Vaccination in Children (1-17 Years of Age, 2003-2006)



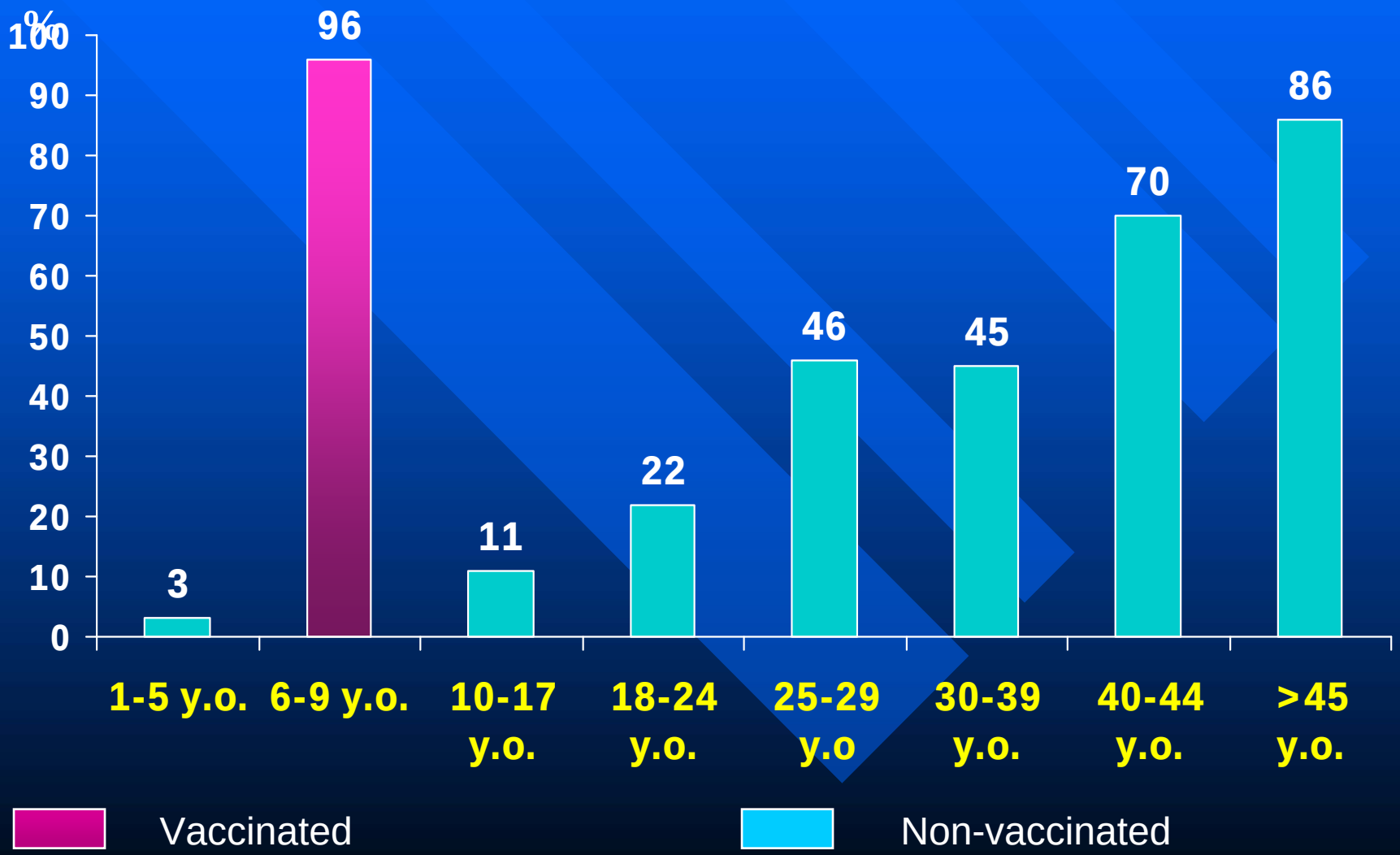
Changes of Age-Specific Hepatitis A Morbidity in 2000-2006



2000-2 (no vaccination against Hepatitis A): 33-41% of child cases

2005-6: 7-12% of child cases

Hepatitis A Seroprevalence Age Structure (May-October 2007, 568 subjects)



Conclusions

- Introduction of Universal Hepatitis A vaccination in Minsk resulted in sharply reduced incidence in both vaccinated and non-vaccinated children.
- Hepatitis A virus circulation might be further decreased by beginning vaccination at a younger age.
- Young adults in Minsk continue to be at risk of Hepatitis A infection.

Thank You for Attention