RIGA STRADINS UNIVERSITY

Parents' attitudes towards routine children’s immunization in the Republic of Belarus in COVID-19 pandemic

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2022

Vaccines for Children

Protecting America's children every day

The Vaccines for Children (VFC) program helps ensure that all children have a better chance of getting their recommended vaccines. VFC has helped prevent disease and save lives.

CDC estimates that vaccination of children born between 1994 and 2018 will:

prevent **419 million** illnesses
(26.8 million hospitalizations)

more than the current population of the entire U.S.A.

help avoid **936,000** deaths

greater than the population of Seattle, WA

save nearly **$1.9 trillion** in total societal costs
(that includes $406 billion in direct costs)

more than $5,000 for each American

Updated 2018 analysis using methods from "Benefits from immunization during the Vaccines for Children Program Era—United States, 1994-2013."

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

www.cdc.gov/features/vfcprogram

NCIRDIg702 | 03/28/19

Приложение 1
к постановлению
Министерства здравоохранения
Республики Беларусь
17.05.2018 № 42

Национальный календарь профилактических прививок

Перечень инфекций, против которых проводятся профилактические прививки	Группы физических лиц и сроки проведения профилактических прививок
Вирусный гепатит В	Новорожденные в первые 12 часов жизни, дети в возрасте 2, 3, 4 месяцев
Туберкулез	Новорожденные на 3 - 5-й день жизни
Пневмококковая инфекция	Дети в возрасте 2, 4 и 12 месяцев
Дифтерия, столбняк, коклюш, гемофильная инфекция	Дети в возрасте 2, 3, 4 месяцев
Дифтерия, столбняк, коклюш	Дети в возрасте 18 месяцев
Полиомиелит	Дети в возрасте 2, 3, 4 месяцев и 7 лет
Корь, эпидемический паротит, краснуха	Дети в возрасте 12 месяцев и 6 лет
Дифтерия и столбняк	Дети в возрасте 6 лет, 16 лет, взрослые в возрасте 26 лет и каждые последующие 10 лет жизни до достижения возраста 66 лет
Дифтерия	Дети в возрасте 11 лет
Грипп	Дети в возрасте с 6 месяцев и взрослые

Public Health England

NHS

A visual guide to vaccines

used in the routine immunisation schedule

Vaccine trade name/abbreviation	Disease(s) protected against	Age due
Infanrix hexa DTaP/IPV/Hib/HepB	Diphtheria, tetanus, pertussis (whooping cough), polio, Haemophilus influenzae type b (Hib) and hepatitis B	8,12,16 weeks
Prevenar 13 PCV	Pneumococcal (13 serotypes)	12 weeks and 1 year
Bexsero MenB	Meningococcal group B	8, 16 weeks and 1 year
Rotarix Rotavirus (oral)	Rotavirus gastroenteritis	8 and 12 weeks
Menitorix Hib/MenC	Haemophilus influenzae type b (Hib) and meningococcal group C	1 year
M-M-RvaxPro or Priorix MMR	Measles, mumps and rubella	1 year and 3 years 4 months
Fluenz Tetra LAIV (nasal)	Influenza	Eligible paediatric age groups*
Repevax dTaP/IPV	Diphtheria, tetanus, pertussis and polio	3 years 4 months and pregnant women from 16 weeks gestation
Gardasil HPV	Cancers caused by human papillomavirus (HPV) types 16 and 18 and genital warts types 6 and 11	Boys and girls aged 12 to 13 years (school year 8)
Revaxis Td/IPV	Tetanus, diphtheria and polio	14 years (school year 9)
Nimenrix MenA/C/W/Y	Meningococcal groups A, C, W and Y	14 years (school year 9)
Boostrix-IPV or Repevax dTaP/IPV	Diphtheria, tetanus, pertussis and polio	Pregnant women from 16 weeks gestation
Pneumococcal Polysaccharide Vaccine PPV	Pneumococcal (23 serotypes)	65 years
Zostavax Shingles	Shingles	70 years

*Images of inactivated influenza vaccines not shown on this poster as several different products are available. Full details of the routine immunisation schedule are available at www.gov.uk/government/collections/immunisation

immunisation
The safest way to protect your health

Australian Government Department of Health and Aged Care

National Immunisation Program

A joint Australian, State and Territory Government initiative

Childhood Immunisation Schedule

Birth
- Hepatitis B (usually offered in hospital)

2 months (can be given from 6 weeks of age)
- Diphtheria, tetanus, whooping cough, hepatitis B, polio, *Haemophilus influenzae* type b (Hib)
- Pneumococcal
- Rotavirus
- Meningococcal B—Aboriginal and Torres Strait Islander children

4 months
- Diphtheria, tetanus, whooping cough, hepatitis B, polio, *Haemophilus influenzae* type b (Hib)
- Pneumococcal
- Rotavirus
- Meningococcal B—Aboriginal and Torres Strait Islander children

6 months
- Diphtheria, tetanus, whooping cough, hepatitis B, polio, *Haemophilus influenzae* type b (Hib)
- Pneumococcal—Aboriginal and Torres Strait Islander children in Qld, NT, WA and SA

12 months
- Meningococcal ACWY
- Measles, mumps, rubella
- Pneumococcal
- Meningococcal B—Aboriginal and Torres Strait Islander children

18 months
- *Haemophilus influenzae* type b (Hib)
- Measles, mumps, rubella, chickenpox
- Diphtheria, tetanus, whooping cough
- Hepatitis A—Aboriginal and Torres Strait Islander children in Qld, NT, WA and SA

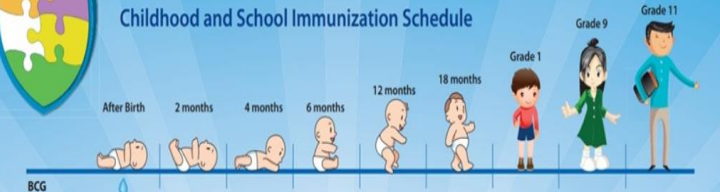
4 years
- Diphtheria, tetanus, whooping cough, polio
- Pneumococcal—Aboriginal and Torres Strait Islander children in Qld, NT, WA and SA
- Hepatitis A—Aboriginal and Torres Strait Islander children in Qld, NT, WA and SA

Influenza vaccine is funded for:
- Children 6 months and over with specified medical risk conditions.
- All children aged 6 months to less than five years of age.
- Aboriginal and Torres Strait Islander children aged 6 months and over.

Additional meningococcal and pneumococcal vaccines are also NIP funded for people with specified medical risk conditions.

Protect Your Health with Vaccination

Childhood and School Immunization Schedule



BCG	●									
Hep B	●	●	●	●						
Hib		●	●	●		●				
DTaP / DPT / Tdap		(DTaP)	(DTaP)	(DPT)		(DTaP)	(DTaP)			(Tdap)
OPV/ IPV		(IPV)	(IPV)	(OPV)		(OPV)	(OPV)			(OPV)
PCV		●	●	●		●				
MMR					●		●			
Varicella					●		●			
Rubella									(Female)	
HPV										(Female)

Hexavalent: Hexavalent
Pentavalent: Pentavalent
Tetravalent: Tetravalent

Legend:
BCG: Bacillus, Calmette-Guerin (against tuberculosis)
DPT: Diphtheria, Pertussis and Tetanus
DTaP: Diphtheria, Tetanus, and acellular Pertussis
Hep B: Hepatitis B
Hexavalent: DTaP, Hib, Hep B and IPV
Hib: Haemophilus Influenzae Type B
HPV: Human Papillomavirus
IPV: Inactivated Poliovirus Vaccine
MMR: Measles, Mumps and Rubella
OPV: Oral Poliovirus Vaccine
PCV: Pneumococcal Conjugate Vaccine
Pentavalent: DPT, Hib and Hep B
Tdap: Tetanus, reduced Diphtheria and reduced Pertussis
Tetravalent: DTaP and Hib

800 555
www.haad.ae

هيئة الصحة - أبوظبي
HEALTH AUTHORITY - ABU DHABI

IMPFKALENDER

Die Impfungen sollten zum frühestmöglichen Zeitpunkt erfolgen.
Die Überprüfung des Impfstatus ist in jedem Lebensalter sinnvoll. Fehlende Impfungen sollten sofort, entsprechend den Empfehlungen für das jeweilige Lebensalter, nachgeholt werden.

Empfehlungen der Ständigen Impfkommission (STIKO), 2022. www.stiko.de

ROBERT KOCH INSTITUT

IMPFUNG \ ALTER	in Wochen: 6	2	3	4	in Monaten: 5-10	11*	12	13-14	15	16-23	in Jahren: 2-4	5-6	7-8	9-14	15-16	17	ab 18	ab 60	Nächste Impftermine
		U4			U5	U6				U7	U7a/U8 I	U9	U10	U11/J1		J2			
Rotaviren	G1		G2	(G3)															
Tetanus	G1	N	G2	N	G3	N		A1	N	A2	N			A					
Diphtherie	G1	N	G2	N	G3	N		A1	N	A2	N			A					
Keuchhusten Pertussis	G1	N	G2	N	G3	N		A1	N	A2	N			A3	N				
Hib *Haemophilus influenzae* Typ b	G1	N	G2	N	G3	N													
Kinderlähmung Poliomyelitis	G1	N	G2	N	G3	N					A1				N				
Hepatitis B	G1	N	G2	N	G3	N													
Pneumokokken	G1	N	G2	N	G3	N												S	
Meningokokken C						G1													
Masern					G1	N		G2									S		
Mumps, Röteln					G1	N		G2											
Windpocken Varizellen					G1	N		G2											
HPV Humane Papillomviren													G1 d	G2 d	N				
Herpes zoster																	G1 b	G2 b	
Grippe Influenza																	S (jährlich)		

ERLÄUTERUNGEN
- G **GRUNDIMMUNISIERUNG** (in bis zu 3 Teilimpfungen G1 – G3)
- S **STANDARDIMPFUNG**
- A **AUFFRISCHIMPFUNG**
- N **NACHHOLIMPFUNG** (Grundimmunisierung oder nach nicht Geimpften bzw. Kompletterung einer unvollständigen Impferie)
- U **Früherkennungsuntersuchung**
- J **Jugenduntersuchung** (J1 im Alter von 12–14 Jahren)

a Erste Impfstoffdosis bereits ab dem Alter von 6 Wochen, je nach verwendetem Impfstoff 2 bzw. 3 Impfstoffdosen im Abstand von mind. 4 Wochen.
b Frühgeborene: zusätzliche Impfstoffdosis im Alter von 3 Monaten, d. h. insgesamt 4 Impfstoffdosen.
c Mindestabstand zur vorangegangenen Dosis: 6 Monate.
d Zwei Impfstoffdosen im Abstand von mind. 5 Monaten, bei Nachholimpfung beginnend im Alter ≥ 15 Jahren oder bei Impfabstand von < 5 Monaten zwischen 1. und 2. Dosis ist eine 3. Dosis erforderlich.
e 10-Auffrischimpfung alle 10 Jahre. Nächste fällige Td-Impfung 1-malig als Tdap- bzw. bei entsprechender Indikation als Tdap-IPV-Kombinationsimpfung.
f Einmalige Impfung mit einem MMR-Impfstoff für alle nach 1970 geborenen Personen ≥ 18 Jahre mit unklarem Impfstatus, ohne Impfung oder mit nur einer Impfung in der Kindheit.
g Impfung mit dem 23-valenten Polysaccharid-Impfstoff.
h Zweimalige Impfung mit dem adjuvantierten Herpes-zoster-Totimpfstoff im Abstand von mindestens 2 bis maximal 6 Monaten.
i Impfungen können auf mehrere Impftermine verteilt werden. MMR und V können am selben Termin oder in 4-wöchigem Abstand gegeben werden.

https://www.123rf.com/photo_137938445_stock-vector-a-young-woman-is-thinking-about-what-decision-to-make-the-concept-of-choice-yes-or-no-doubts-worries.html

NATIONAL VACCINATION SCHEDULE

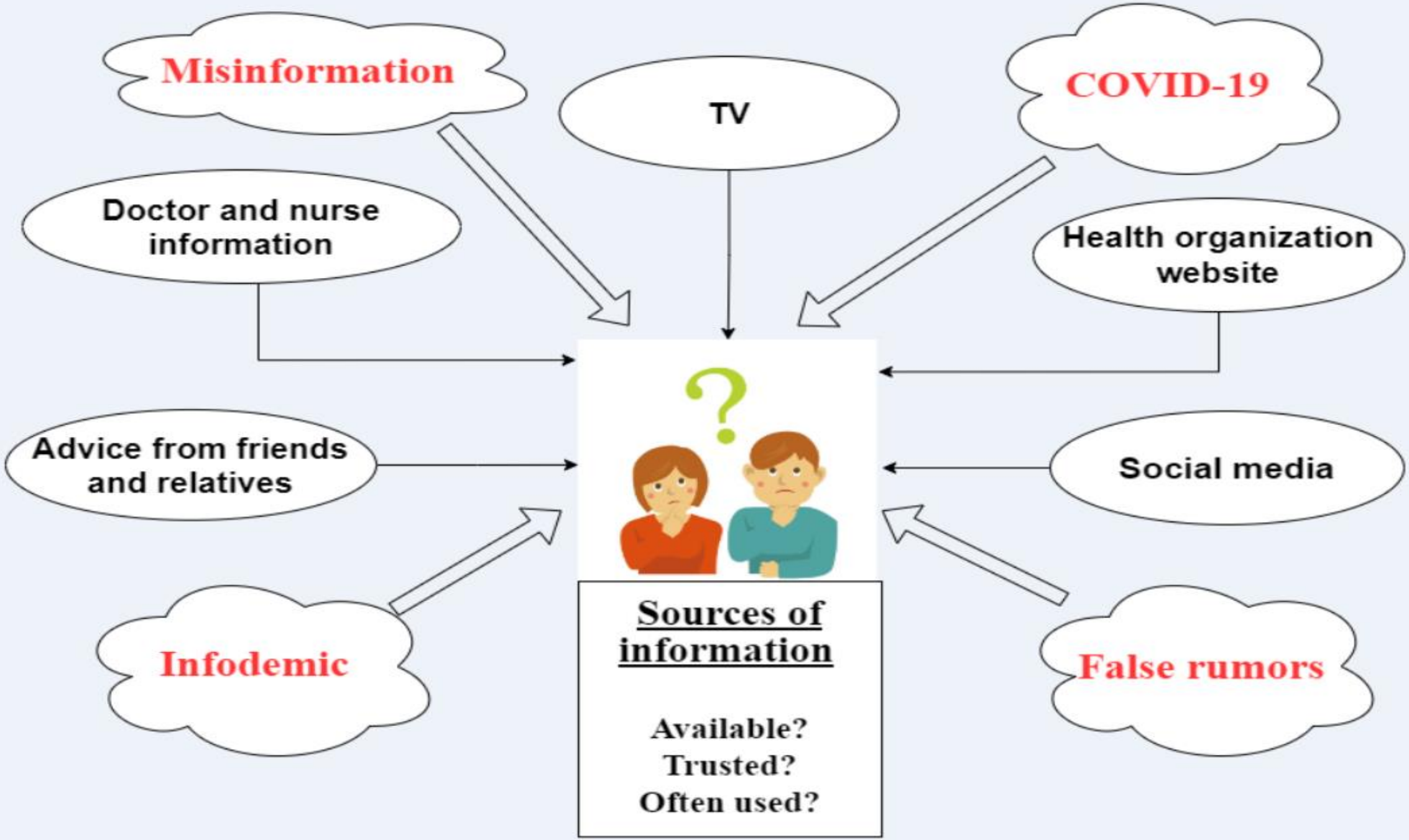
This schedule is in effect
(approved by the Ministry of Health of Ukraine in 2018)

MINISTRY OF HEALTH OF UKRAINE

VACCINATION THOSE PROTECTION unicef

	Birth to 18 months: 1 DAY	3–5 DAYS	2 MONTHS	4 MONTHS	6 MONTHS	12 MONTHS	18 MONTHS	2 to 16 years: 6 YEARS	14 YEARS	16 YEARS	Adults: EVERY 10 YEARS
HEPATITIS B	1 dose		2 dose		3 dose						
TUBERCULOSIS		1 dose									
MEASLES, MUMPS, RUBELLA						1 dose		2 dose			
DIPHTHERIA, TETANUS			1 dose	2 dose	3 dose		4 dose	5 dose		6 dose	VACCINATION
WHOOPING COUGH (PERTUSSIS)			1 dose	2 dose	3 dose		4 dose				
POLIOMYELITIS			1 dose*	2 dose*	3 dose**		4 dose**	5 dose**	6 dose**		
HAEMOPHILUS INFLUENZAE TYPE B (HIB)			1 dose	2 dose		3 dose					

*Inactivated polio vaccine (IPV) | **Oral polio vaccine (OPV)


Misinformation
TV
COVID-19
Doctor and nurse information
Health organization website
Advice from friends and relatives
Social media
Infodemic
False rumors
Sources of information
Available?
Trusted?
Often used?

The aim of this study

- To analyze parents' attitudes towards routine vaccination in Republic of Belarus
- To identify their sources of information about vaccination
- To identify if the COVID-19 pandemic change parents' attitudes towards routine vaccination

- Data were collected from July to October 2022 using a survey (Google form) by social networks (Instagram, Telegram, Viber, WhatsApp).
- In total, 459 questionnaires were received.
- 427 questionnaires were analyzed after applying the inclusion criterion by Jamovi 2.2.5.

Parents' attitudes towards routine children’s vaccinations

Statement	Agree	Difficult to answer	Disagree
Children should be vaccinated	85.2%	4%	11%
Vaccines are effective	83.4%	6.1%	10.5%
My attitude towards routine children's vaccinations change by COVID-19 pandemic	11%	19.2%	69.8 %
* - no significant differences by age, gender, and having medical education			

Hesitancy

Sources of information

Sources	The most available	The most trusted	The most used
Information received at the appointment from a doctor or nurse		+	+
Health organization website	+	+	
Social media	+		+
Advice from relatives and friends			
TV			

Statement	Agree	Difficult to answer	Disagree
I can indicate that information about the vaccination of children in the media or on the Internet site is unreliable (false)	47.5%	35.1%	17.3%
- people with medical education	70.9%	13.9%	15.1%
- people without medical education	41.6%	40.5%	17.9%
* - differences are significant ($x^2=26.4$, $p<0.001$)			

Sources of information

Statement	Agree	Difficult to answer	Disagree
The pediatrician recommended sites where you can find information about children's vaccinations	7%	9%	84%
I receive all the necessary information about the vaccination of children at the pediatrician's appointment	23%	14%	63%

Conclusion

- Parents who took part in the survey have a positive attitude towards routine vaccination of children in the Republic of Belarus and believe that vaccines are effective.
- The COVID-19 pandemic has not caused significant changes in parents' attitude towards routine children vaccination.
- Parents sources of information about vaccination requires attention and action.

Recommendations

- It will be useful to create mobil application with rialible information about children vaccination that doctors can recommended to use for parents.

Thank you for your attention!

Stay healthy!