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**Main expertise: Respiratory tract infections and
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Vaccine confidence and its potential impact on HBV vaccine coverage in Poland

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Ten Threats to Global Health in 2019

1. Air pollution and climate change
2. Noncommunicable diseases
3. Global influenza pandemic
4. Fragile and vulnerable settings
5. Antimicrobial resistance
6. Ebola and other high-threat pathogens
7. Weak primary health care
- 8. Vaccine hesitancy**
9. Dengue
10. HIV



Vaccine hesitancy



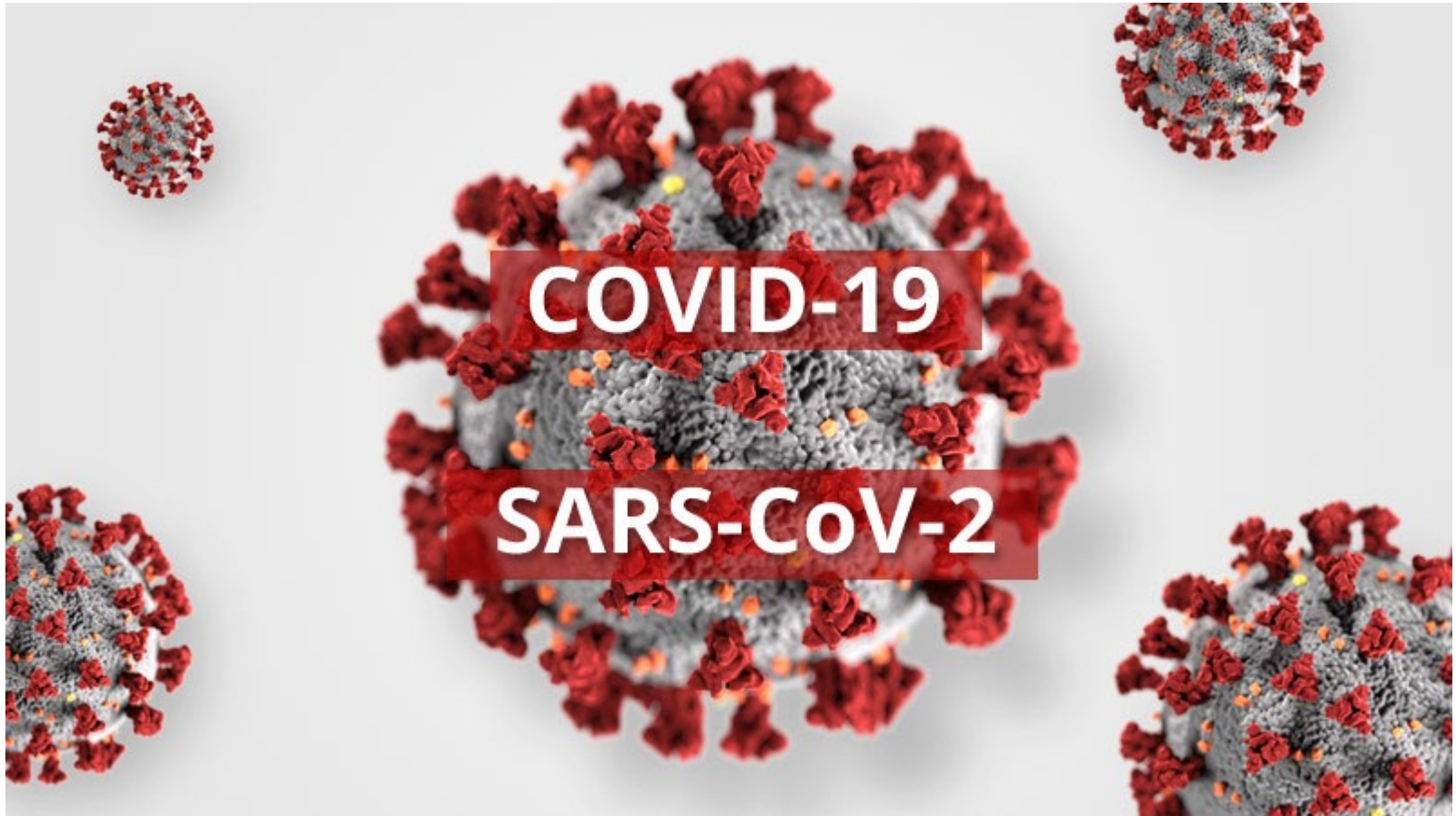
Reluctance or refusal of vaccination despite the availability of vaccines

Vaccine confidence



Definition connected with public trust in recommended vaccinations, science, policies etc. that led to the recommendations

COVID-19 pandemic – new challenge for vaccinology



Vaccinations during COVID-19 pandemic and in post-COVID era (1)

Missing opportunities to vaccinate, postponed vaccinations schedules



Significant decrease in vaccination rates



Increasing number of new cases and local outbreaks of such diseases as pertussis, measles

Vaccinations during COVID-19 pandemic and in post-COVID era (2)

New technologies, new vaccines



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graph TD; A[New technologies, new vaccines] --> B[Misinformation, actions of anti-vaccination movements]; B --> C[Increasing number of vaccination refusals]; C --> D[Further spread of the disease];
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Misinformation, actions of anti-vaccination movements

Increasing number of vaccination refusals

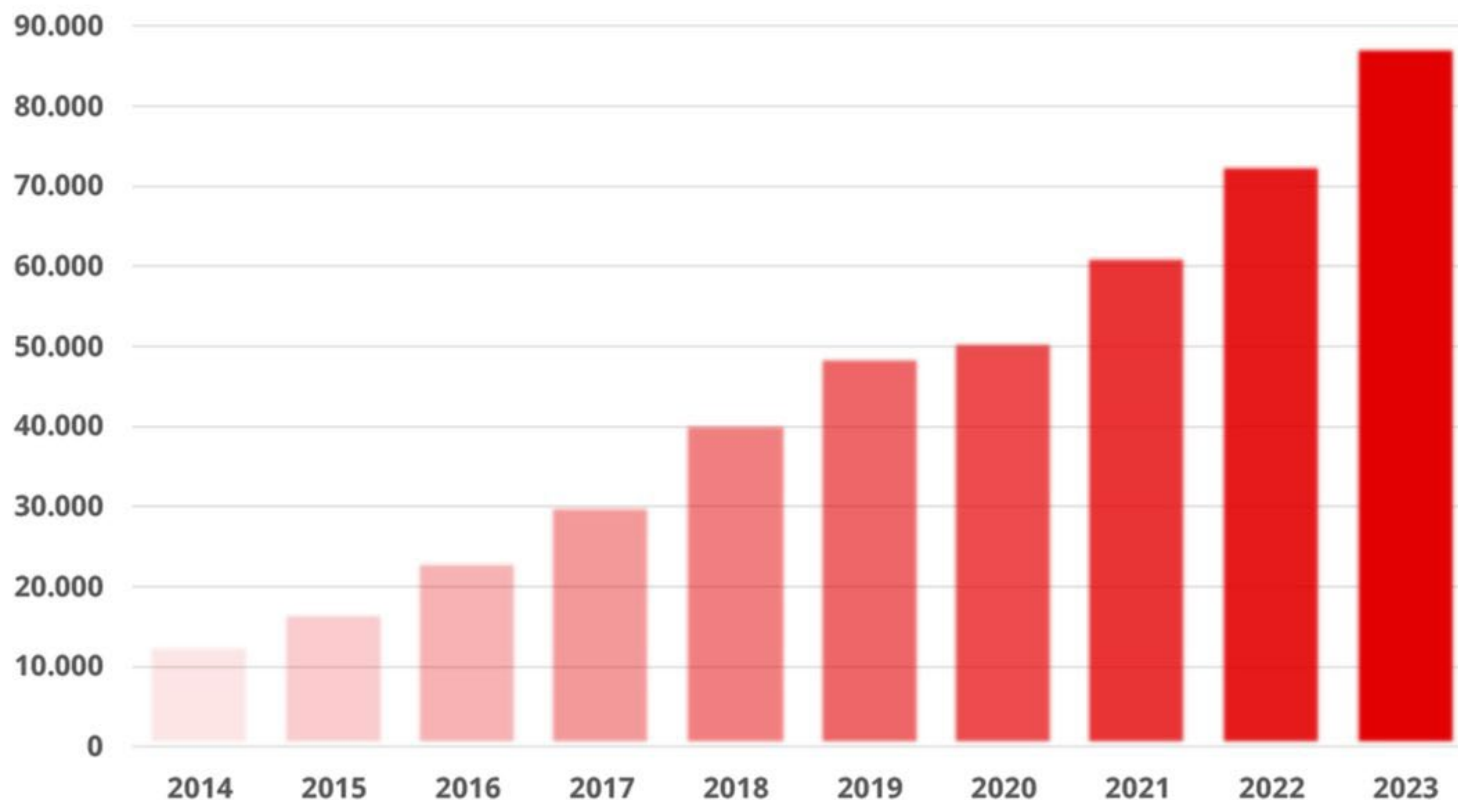
Further spread of the disease

COVID DEATHS



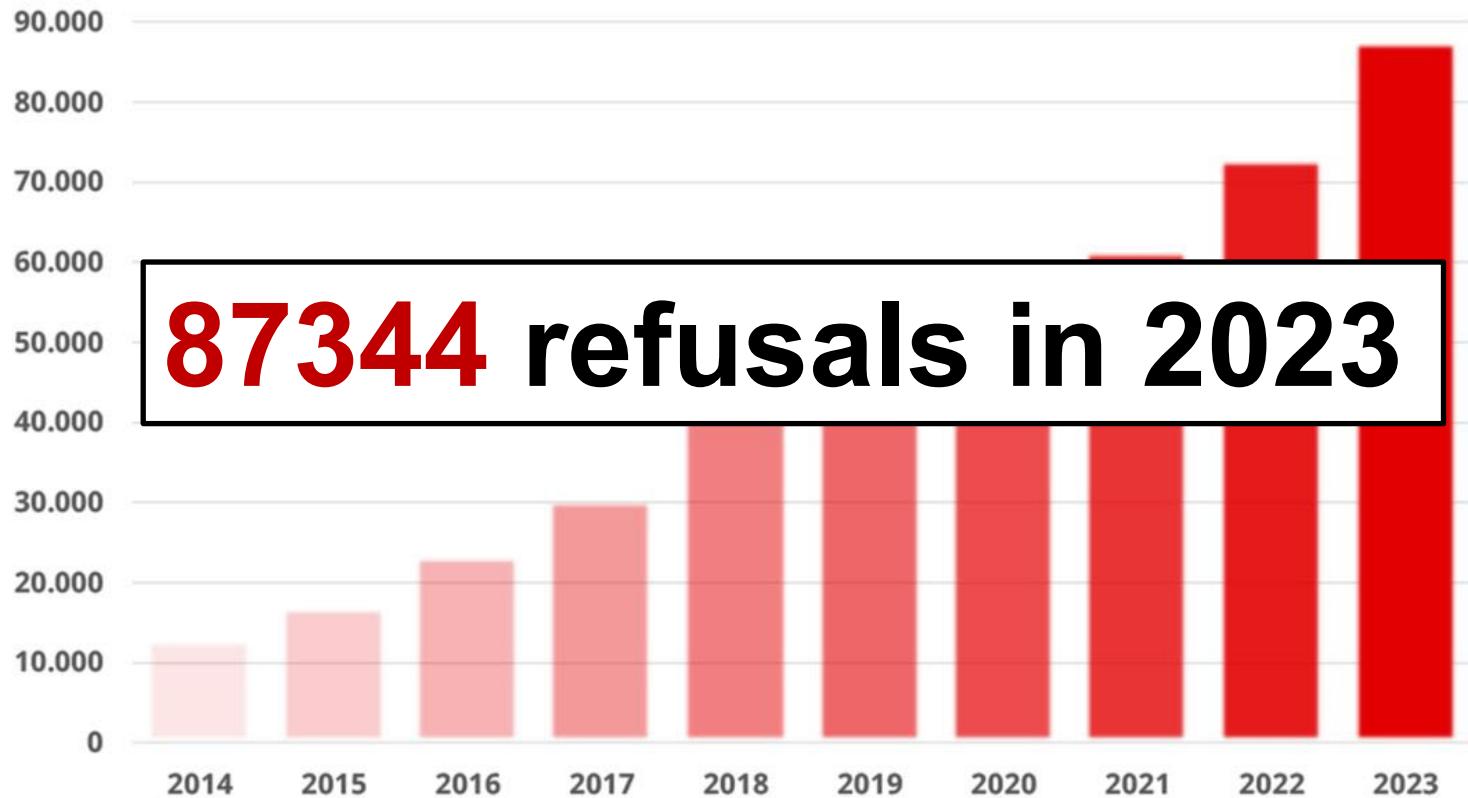
VACCINE DEATHS

Number of vaccination refusals in years 2014-2023 in Poland



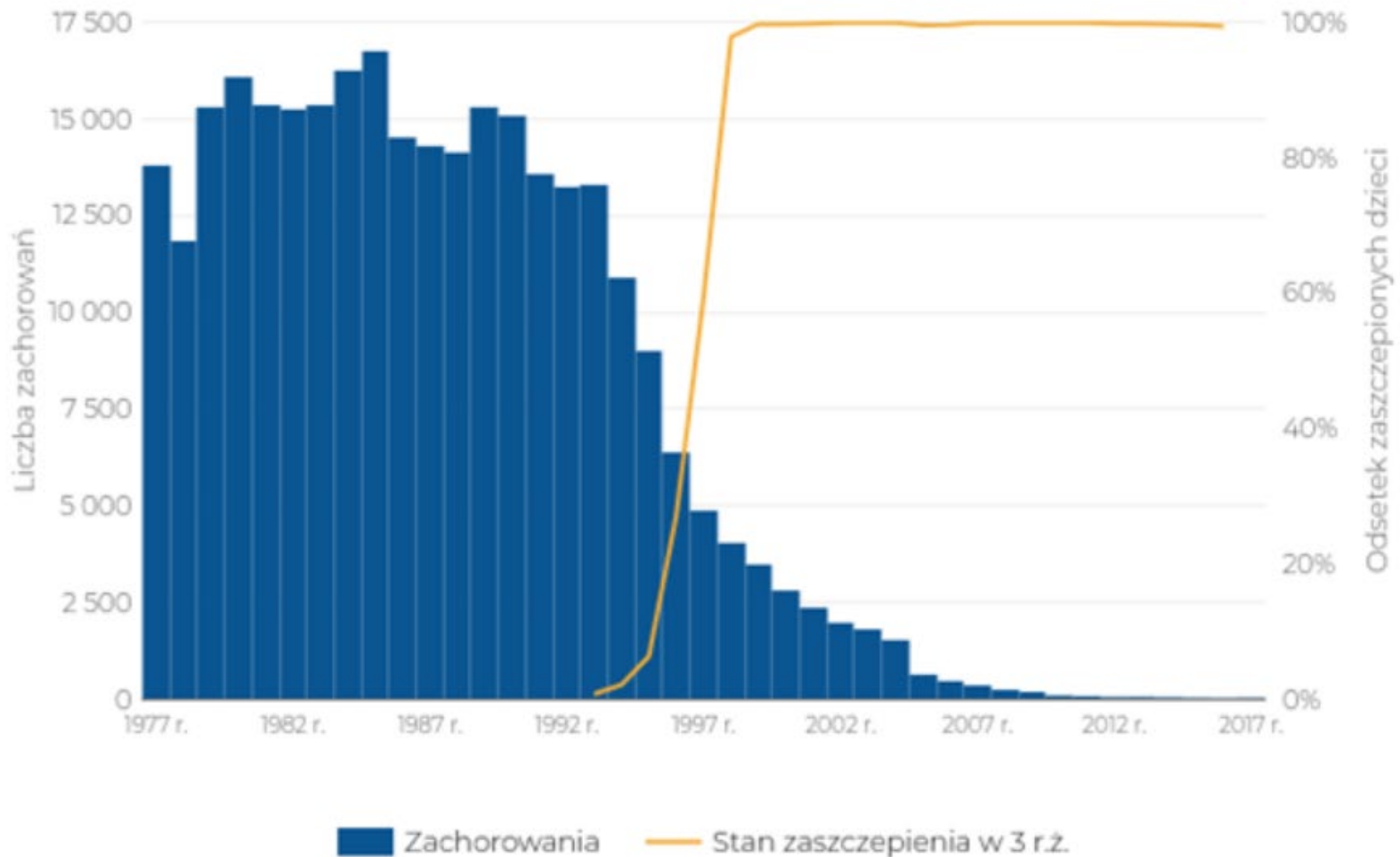
Źródło danych: Biuletyny roczne „Szczepienia ochronne w Polsce” (wyd: NIZP PZH-PIB, GIS)

Number of vaccination refusals in years 2014-2023 in Poland



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HBV in Poland – real problem in pre-vaccination era



HBV in Poland – real problem in pre-vaccination era

Reports from the study from Department of Pediatric Infectious Diseases in Wrocław

Age of diagnosis of chronic HBV infection in our patients [range 1-15 y]

Age of diagnosis	Number of children	Percentage
1st year	42	31,6
2nd year	30	22,6
3rd year	19	14,3
≥ 4th year	42	31,6
Total	133	100

HBV in Poland – real problem in pre-vaccination era

Reports from the study from Department of Pediatric Infectious Diseases in Wrocław

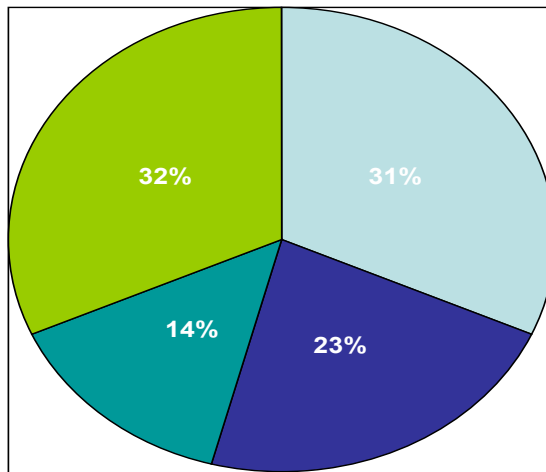
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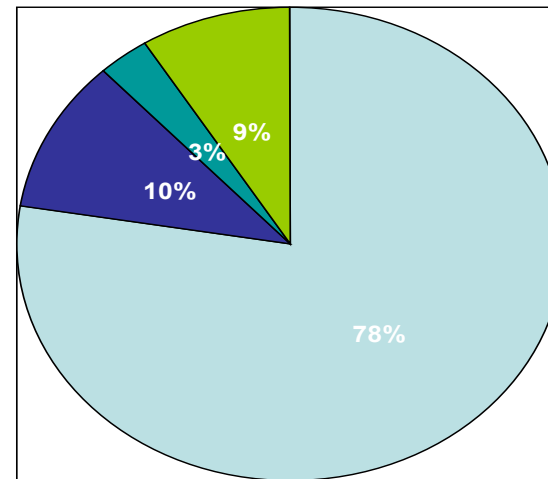
Reports from the study from Department of Pediatric Infectious Diseases in Wrocław

Diagnosis of HBV infection
(year of live)



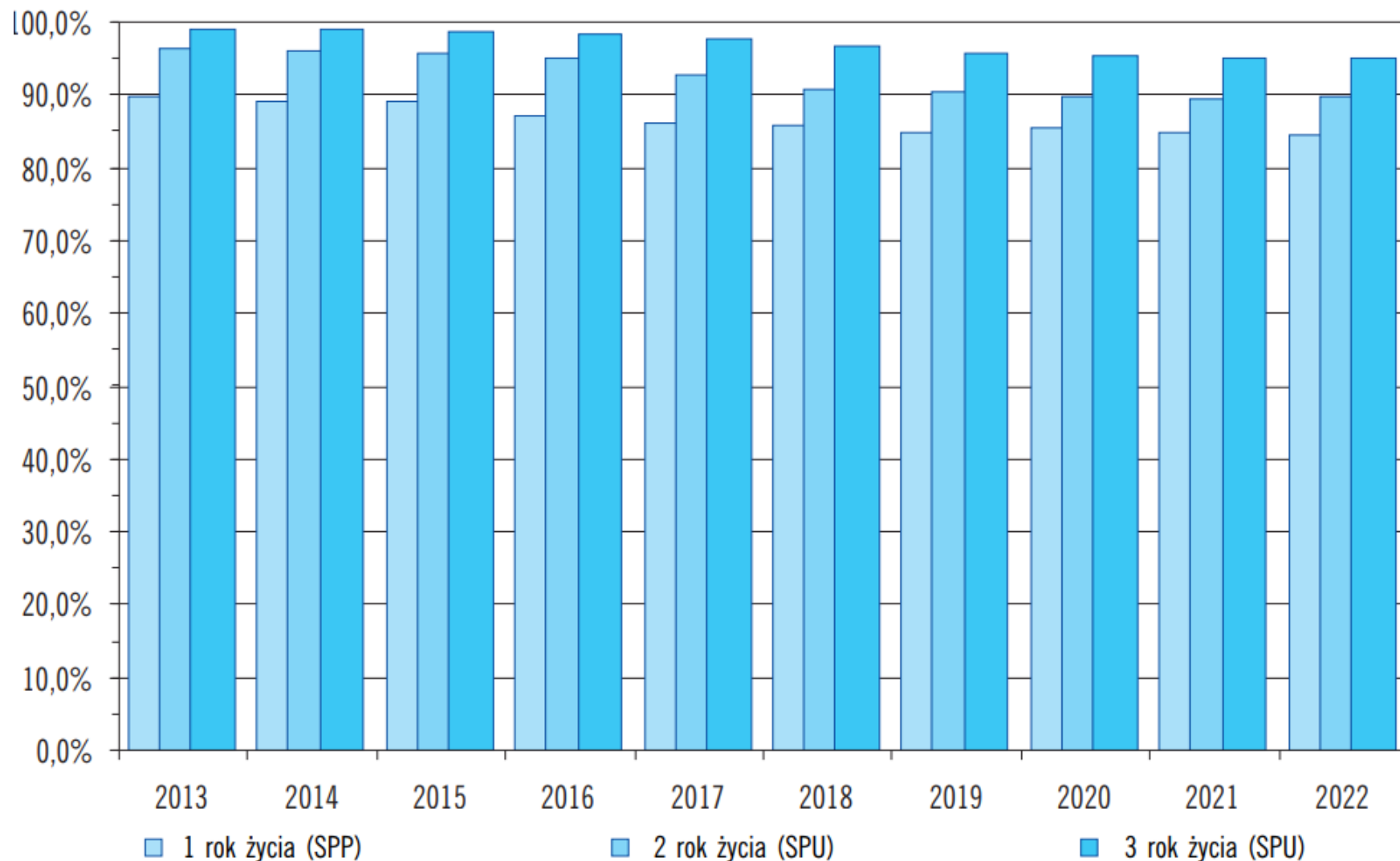
1st 2nd 3rd 4-15th

Probable time of HBV infection
(year of live)



1st 2nd 3rd 4-15th

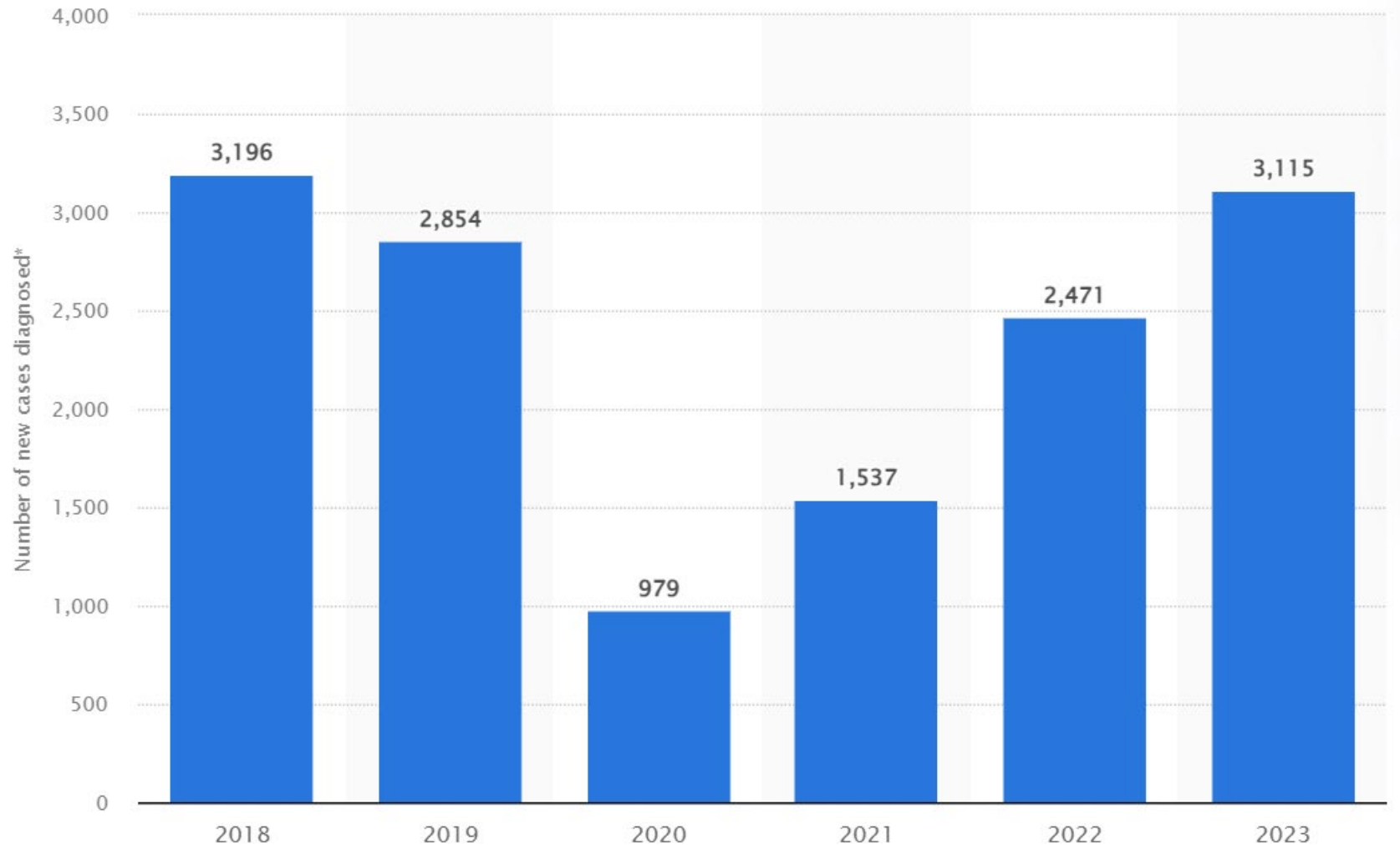
HBV vaccination in Poland



Problems with HBV vaccination in Poland

- Still high, but gradually decreasing vaccination rate in children
- Increasing number of new cases of HBV – unvaccinated young adults? people in humanitarian crisis?

Number of cases of acute hepatitis B and chronic viral hepatitis B diagnosed in Poland from 2018 to 2023



Problems with HBV vaccination in Poland

Acute viral hepatitis type B in 2022

Grupy wieku	Miasto			Wieś			Ogółem		
	Mężczyźni	Kobiety	Ogółem	Mężczyźni	Kobiety	Ogółem	Mężczyźni	Kobiety	Ogółem
0-24	-	-	-	-	-	-	-	-	-
25-29	1	2	3	-	-	-	1	2	3
30-34	2	-	2	1	-	1	3	-	3
35-39	1	-	1	-	-	-	1	-	1
40-44	3	2	5	1	-	1	4	2	6
45-49	2	3	5	2	-	2	4	3	7
50-54	-	1	1	2	1	3	2	2	4
55-59	-	-	-	-	-	-	-	-	-
60-64	1	-	1	-	-	-	1	-	1
65-74	1	-	1	-	-	-	1	-	1
75+	-	2	2	-	1	1	-	3	3
Ogółem	11	10	21	6	2	8	17	12	29

Chronic and NOS viral hepatitis type B in 2022

Grupy wieku	Miasto			Wieś			Ogółem		
	Mężczyźni	Kobiety	Ogółem	Mężczyźni	Kobiety	Ogółem	Mężczyźni	Kobiety	Ogółem
0-4	-	-	-	2	-	2	2	-	2
0	-	-	-	1	-	1	1	-	1
1	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-
3	-	-	-	1	-	1	1	-	1
4	-	-	-	-	-	-	-	-	-
5-9	1	-	1	1	1	2	2	1	3
5	-	-	-	-	-	-	-	-	-
6	-	-	-	1	-	1	1	-	1
7	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-
9	1	-	1	-	1	1	1	1	2
10-14	-	1	1	-	-	-	-	1	1
15-19	5	1	6	1	2	3	6	3	9
20-24	7	6	13	2	4	6	9	10	19
25-29	58	79	137	17	28	45	75	107	182
30-34	137	142	279	58	49	107	195	191	386
35-39	127	102	229	62	38	100	189	140	329
40-44	120	71	191	66	18	84	186	89	275
45-49	133	80	213	45	28	73	178	108	286
50-54	119	68	187	55	25	80	174	93	267
55-59	100	64	164	46	38	84	146	102	248
60-64	62	44	106	38	20	58	100	64	164
65-74	78	72	150	39	27	66	117	99	216
75+	26	41	67	8	9	17	34	50	84

Adverse effects of vaccinations and mass media

Zmarła kilka dni po szczepieniu. Prokuratura wszczęła śledztwo

GIF wycofuje serię szczepionki dla dzieci. "Niepożądany odczyn poszczepienny"

Autor

Wrocław: Nastolatka zmarła kilka godzin po szczepieniu. Są nowe fakty

GIF wstrzymał w obrocie serię szczepionki przeciw WZW typu B dla dzieci. Zgłoszono niepożądany odczyn

Adverse effects of vaccinations and mass media

MEDICAL ERROR

7 dni po szczepieniu. Prokuratura

GIF wstrzymał w obrocie szczepionki dla dzieci.
"Niepożądany odczyn poszczepienny"

Autor

Wrocław: Nastolatka zmarła po szczepieniu. Są nowe fakty

GIF wstrzymał w obrocie szczepionki przeciw WZW typu A dla dzieci. Zgłoszono niepożądany odczyn

Challenges for the future

Great need for systemic solutions



Responding and reaction to fake news of vaccination, providing reliable information to the public



To stop the increasing vaccine hesitancy

Thank You for Your attention