## Setting the scene on primary immunodeficiencies (PIDs)



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IPOPI PID Forum

Empowering PID patients through rare disease policies 2009-2024

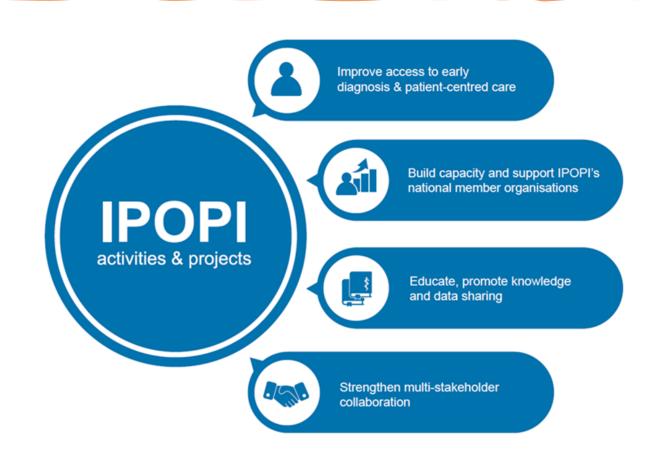
21 March 2024, European Parliament, Brussels

#### Introduction to IPOPI

The association of national patient organisations dedicated to improving:

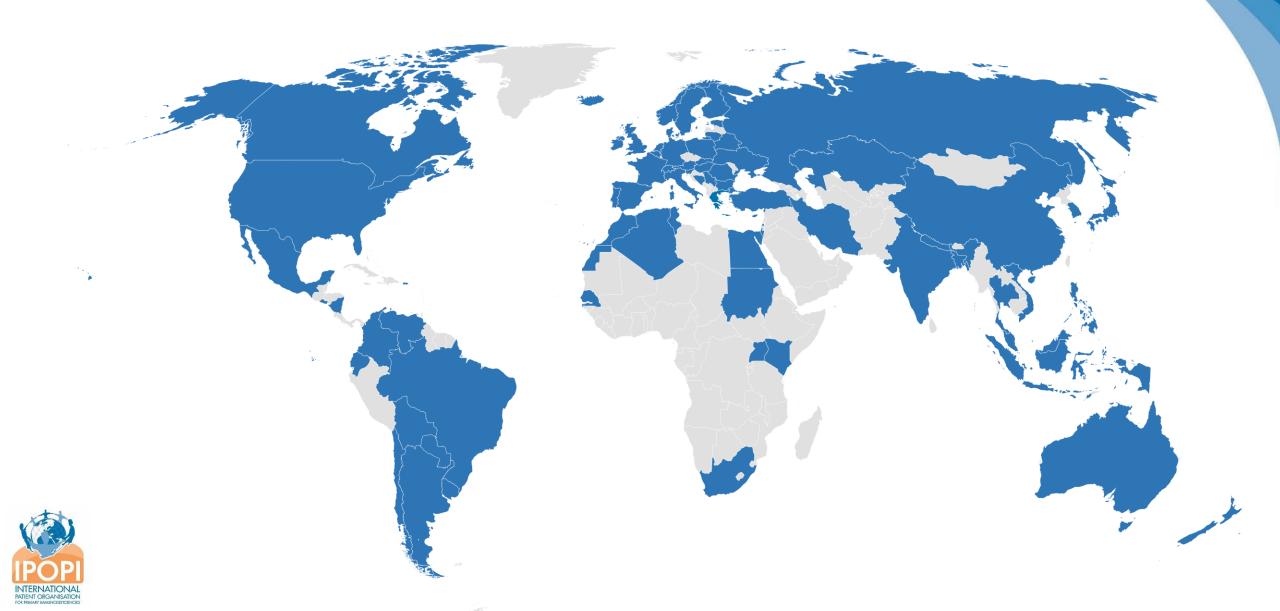
- Awareness
- Access to early diagnosis
- Access to care

For patients living with primary immunodeficiencies (PIDs) worldwide





#### **IPOPI** members



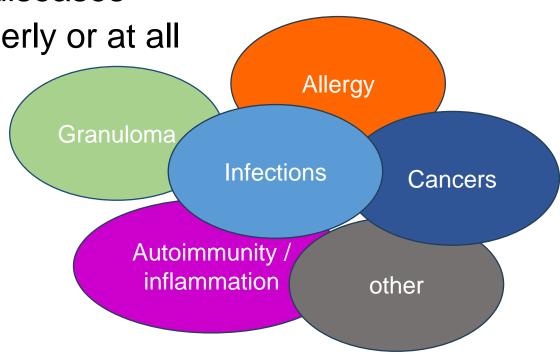
### What are Primary Immunodeficiencies (PIDs)?

485+ different genetic rare and chronic diseases

The immune system does not work properly or at all

- Affect children and adults
- Clinical presentations are variable
- Patients with PIDs can have:
  - Increased susceptibility to infections
  - Autoimmunity
  - Inflammation
  - Lymphoproliferation
  - Allergy
  - Malignancy

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# What are the treatment options for patients with PIDs?

- Anti-infectious therapies
- Vaccines
- Immunoglobulin replacement therapies
- Biological and targeted therapies
- Curative therapies
  - Hematopoietic stem cell transplantation / bone marrow transplantation
  - Gene therapy
  - thymic transplant / cultured thymic tissues

#### Becoming a patient...

- An individual can be diagnosed with a PID at any stage of his/her life.
- Diagnosis is key to avoid long-term damage... but hard to get sometimes → diagnostic delay / diagnostic odyssey

Country	Reported period (years)	Number of patients	Age at time of analysis	Age at onset	Age at diagnosis	Viagnostic delay	% of patients diagnosed as adults	References
Denmark	1994–2013	179	50.1± 17.0	29 (IQR; 3-87)	40 (IQR; 29–56) min 4; max 87	7 (IQR; 3–17)		Westh et al. (9)
Germany	2012–2017	728	40 (3–88)	_	Max 79	Mean: 7.35 median: 3	6 %	El-Helou et al. (1)
Italy	1985–2015	75	50.08 ± 15.81; Median: 49	32 [17.82]*	40 [16.01]*	7 (IQR; 3–13)	-	Graziano et al. (10)
Poland	2017	77	39.19 ± 13.61	22.16 ± 14.32	32.29 ± 14.9	$10.13 \pm 10.53$	76 6%	Wiesik-Szewczyk et al. (11)
Switzerland	2008–2014	98	-	-	-	Median: 5.95	87 5%	Marschall et al. (12)
United Kingdom (2008**) 2012-2017		1,404	-	-		4 (IQR; 1-10) 4 (0-69)	-	Shillitoe et al. (3)
Europe (23 countries)	2004–2014	2,700	~	18 (0-81) 22.4 ± 19.0	31 (4–89)	4 (0-69) 8.8 ± 11.4	69.5%	Odnoletkova et al. (13)
Europe (16 countries)	2004–2012	2,212	-	-	-	4.1 (IQR; 1-11.8)	86.7%	Gathmann et al. (8)

Summary of most relevant CVID epidemiological studies in selected countries (2020)

If not otherwise indicated, data are presented as median (minimum-maximum) or median (interquartile range—IQR) or  $n = 1 \pm SD$ .

Median [SD].

<sup>\*\*</sup>United Kingdom Primary Immunodeficiency (UKPID) registry exists from 2008

#### Becoming a patient...

 Newborn screening for some PIDs is possible: SCID can be treated and (sometimes) cured!



 "Simple" + genetic tests are needed for specific diagnosis.

The fourth WHO model list of essential in vitro diagnostics (EDL 4)

 Multiple specialists are often needed in order to fully grasp the implications of the specific PID.

### Being a patient...

- Getting to terms with a chronic medical condition.
  - Learning & understanding the condition.
  - You are no longer like anyone else, certain limitations / precautions are needed.
- Getting to terms with the treatment.
  - Learning about the (complex) treatment (s).
  - Treatment is often burdensome, not so easy to handle, side effects, needs to be planned, etc.
  - Insecurity of supply with some therapies (antiinfectious, immunoglobulins, biologicals...)
  - Need to travel to receive it.





Source: EMA shortages catalogue



#### Source:

https://www.ema.europa.eu/en/events/hmaema-multi-stakeholder-workshop-shortages

#### Being a patient...

- Getting used to a treating physician and the rest of specialists.
  - Managing appointments, several hospitals/ departments, ...



• Changing daily routine – precaution, treatment, travel to hospitals, work/school balance, family life, disease itself, travelling ... on top of "normal life".



• Mental support is in many cases needed.

#### Ageing as a patient...

- Evolution of the PID over the years.
  - What is known/ felt by the patient & doctor
  - Unknown as little data

Co-morbidities and subsequent treatment & care needed.

New statement: A PID causing a heavy burden of disease must always be recognised as a disability

- Disability status needed in some cases.
- Work / family/ social adjustments.

### Key take aways

 PIDs are a large group of chronic and rare disorders that affect the individuals in a different manner.

- There is no one-size-fits-all approach for the individual patients.
- There are many aspects of patients' lives that can be profoundly impacted by EU policy and legislation.

 We look forward to continuing our collaboration with EU policy makers to jointly improve the lives of patients with PIDs.

### Thank you for your attention

