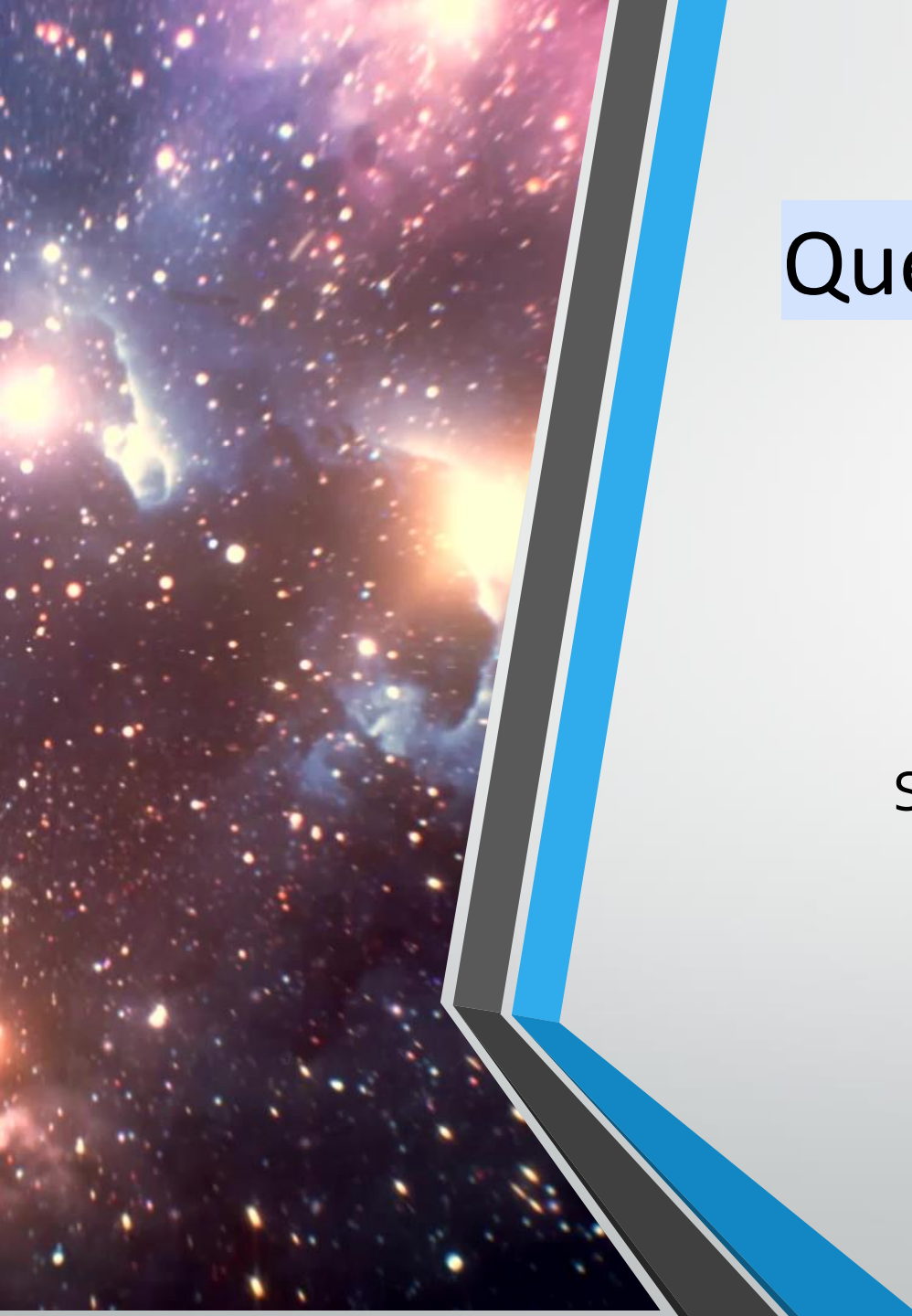


Assessing the Scale of the Long-term
Effects of Polio.
The Twin Challenges of Measuring
Risk and Effective Diagnosis

Cathy Davies




The Answer to the Ultimate Question of Life, the Universe, and Everything

42

So once you know what the question actually is,
you will know what the answer means

The Hitchhikers Guide to the Galaxy



Current PhD study with working title
**The Barriers and Facilitators to the Effective Diagnosis of
Post Polio Syndrome; A Global Perspective**

Cathleen Davies Dept of Epidemiology and Health Care UCL

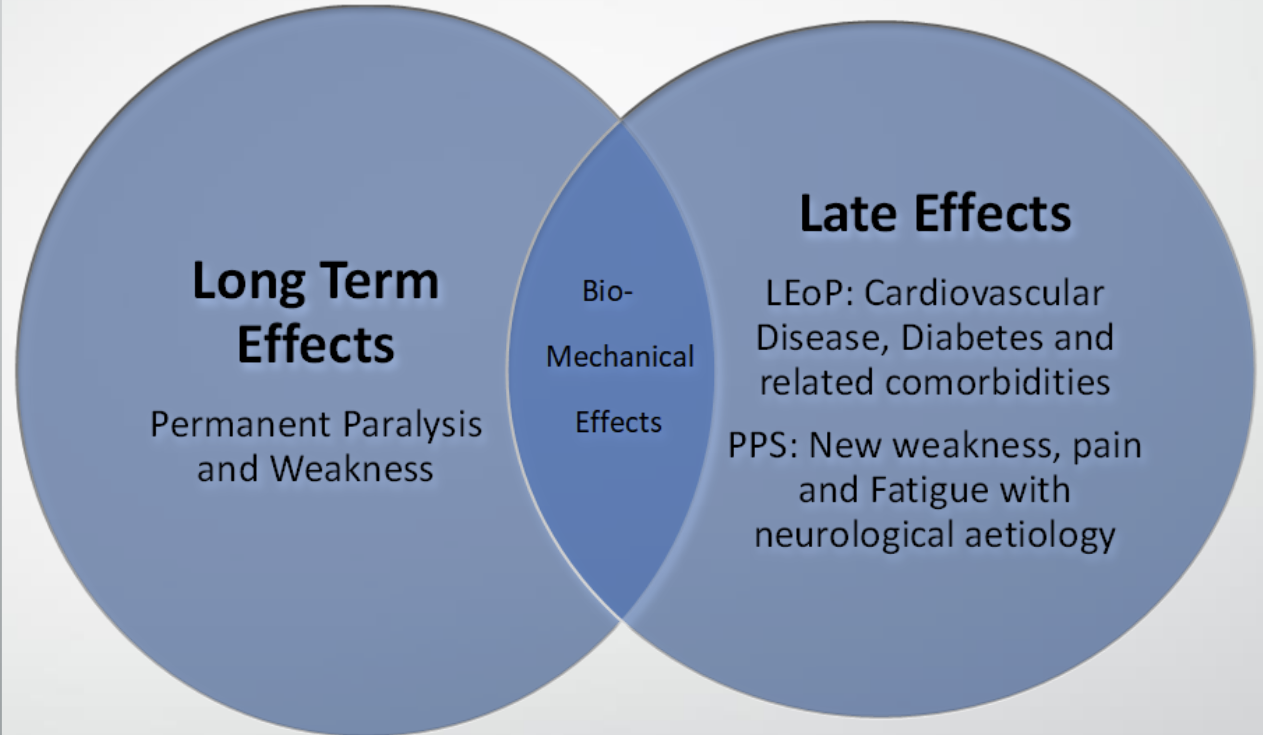
Professor Nora Groce. Leonard Cheshire Chair of Disability and
Inclusive Development

Institute for Global Health

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Some Notes About Terminology

Diagram 1. Polio Sequelae



Overview of relationship between sequelae



**“20 Million Polio
survivors globally”**

World Health Organization
Post Polio Health International

What are we Counting?

Less than 1% of people exposed to polio exhibit lasting disability

Asymptomatic, 'abortive', nonparalytic aseptic meningitis, lasting paralysis(1,2)

The rate of diagnosis will vary hugely through geography and time

Looking At Risk

Risk is believed to be increase with severity of initial illness (3)

Risk of PPS from 15-85% (4)

Those with nonparalytic and abortive disease may represent largest risk of undiagnosed polio

But we just don't know how many people out there could potentially develop PPS



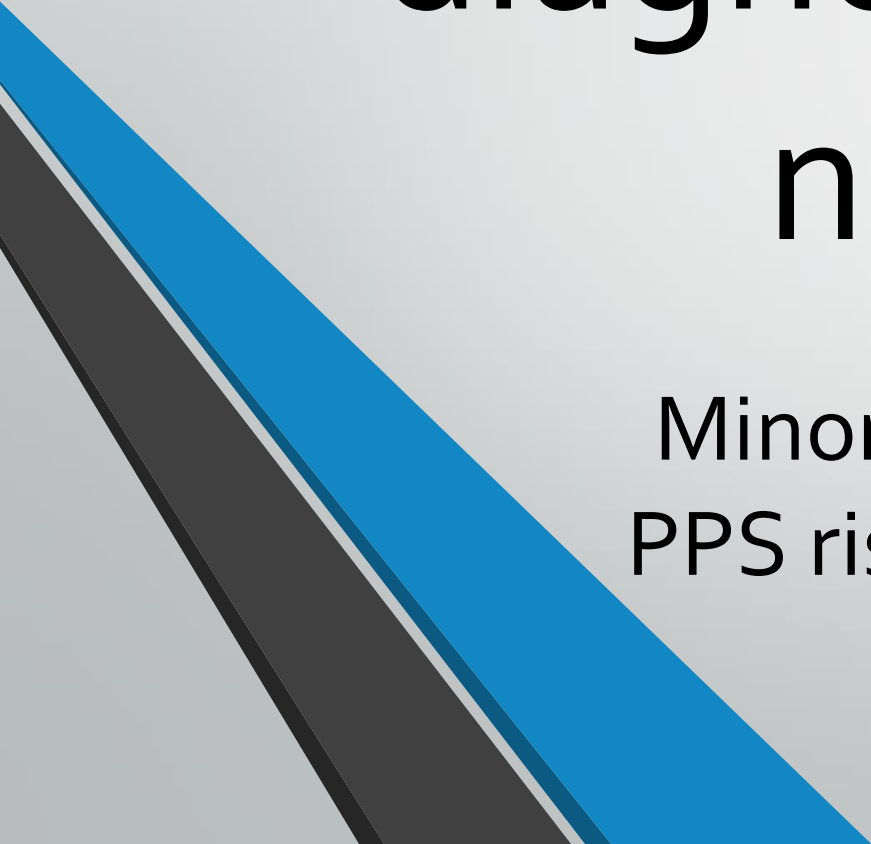
Sibling Research

- Sibling research suggests those with much milder or asymptomatic exposure may be at 'significant risk'(5)
- Even a low risk represents huge numbers globally




Our Second Question

Effective diagnosis



Difficulties of diagnosing paralytic vs non paralytic

Minor muscle weakness poses a
PPS risk, but may not be evident.



Polio Survivors Experience of Diagnosis

Of those with confirmed paralytic polio around half of those who report PPS symptoms are formally diagnosed

Most report that they are not impressed with their physicians knowledge of the topic!

PPs without paralytic polio

- But people without paralytic polio are getting diagnosed.
- Some clinicians are going off-piste to successfully diagnose.



How is Successful Diagnosis Achieved?

Why do half of those reporting PPS
achieve a diagnosis and not the other
half?





- ☐ Physical fatigue
- ☐ Mental fatigue
- ☐ Poor concentration
- ☐ Loss of ability to do actions of daily living
- ☐ Symptoms not believed by health professional
- ☐ Symptoms not believed by family member
- ☐ No diagnosis but continue to deteriorate



My Polio Life & Preparing for an Appointment

Polio survivors Network UK



Why does it Matter?

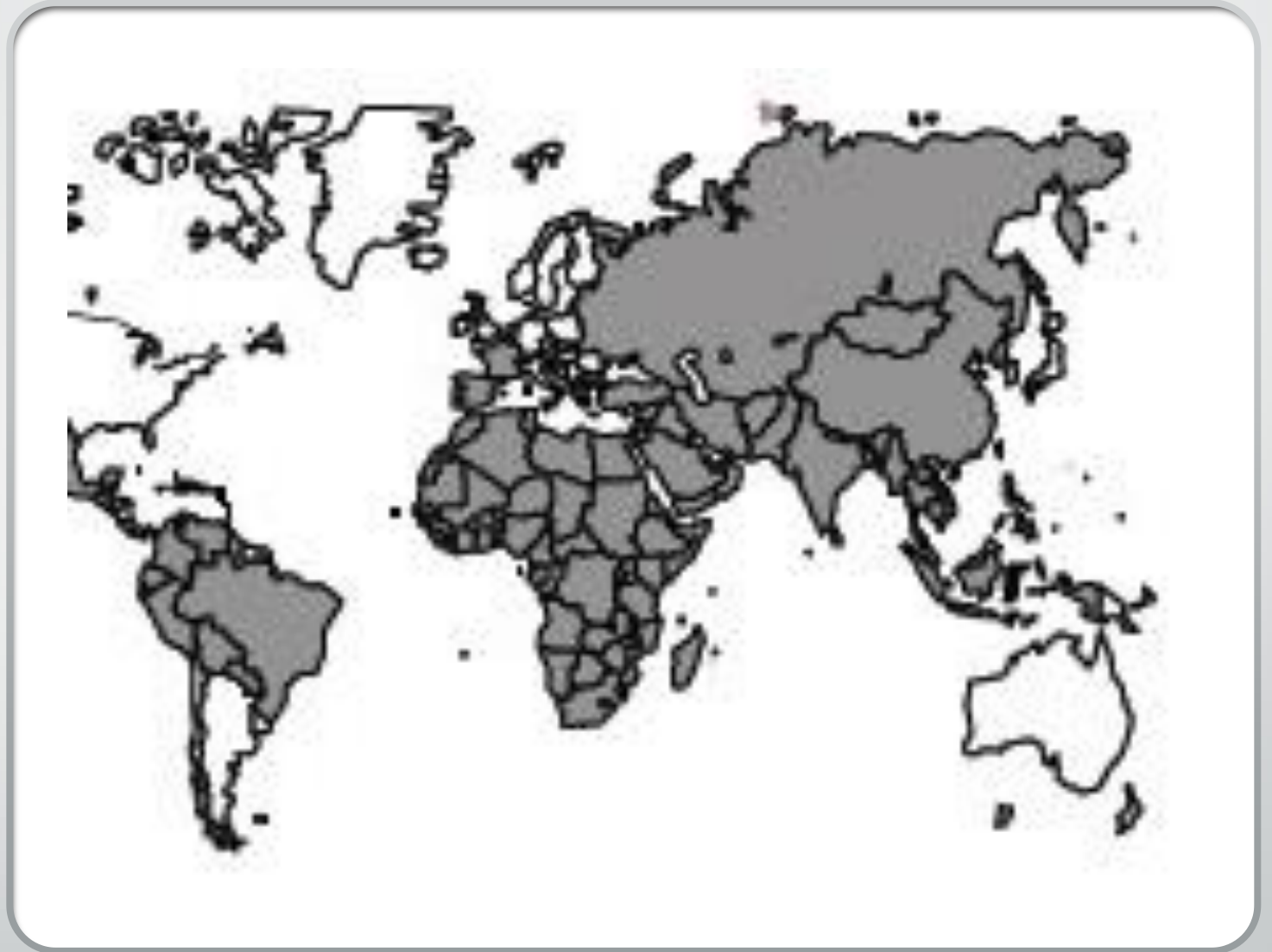
Management regimes, such as rest/ exercise balance.

Understanding increased risks

Because we want to know

Getting It right globally

- Younger global cohort
- Many treatment pathways are cheap and easy,





Re emergence of Polio

R_0

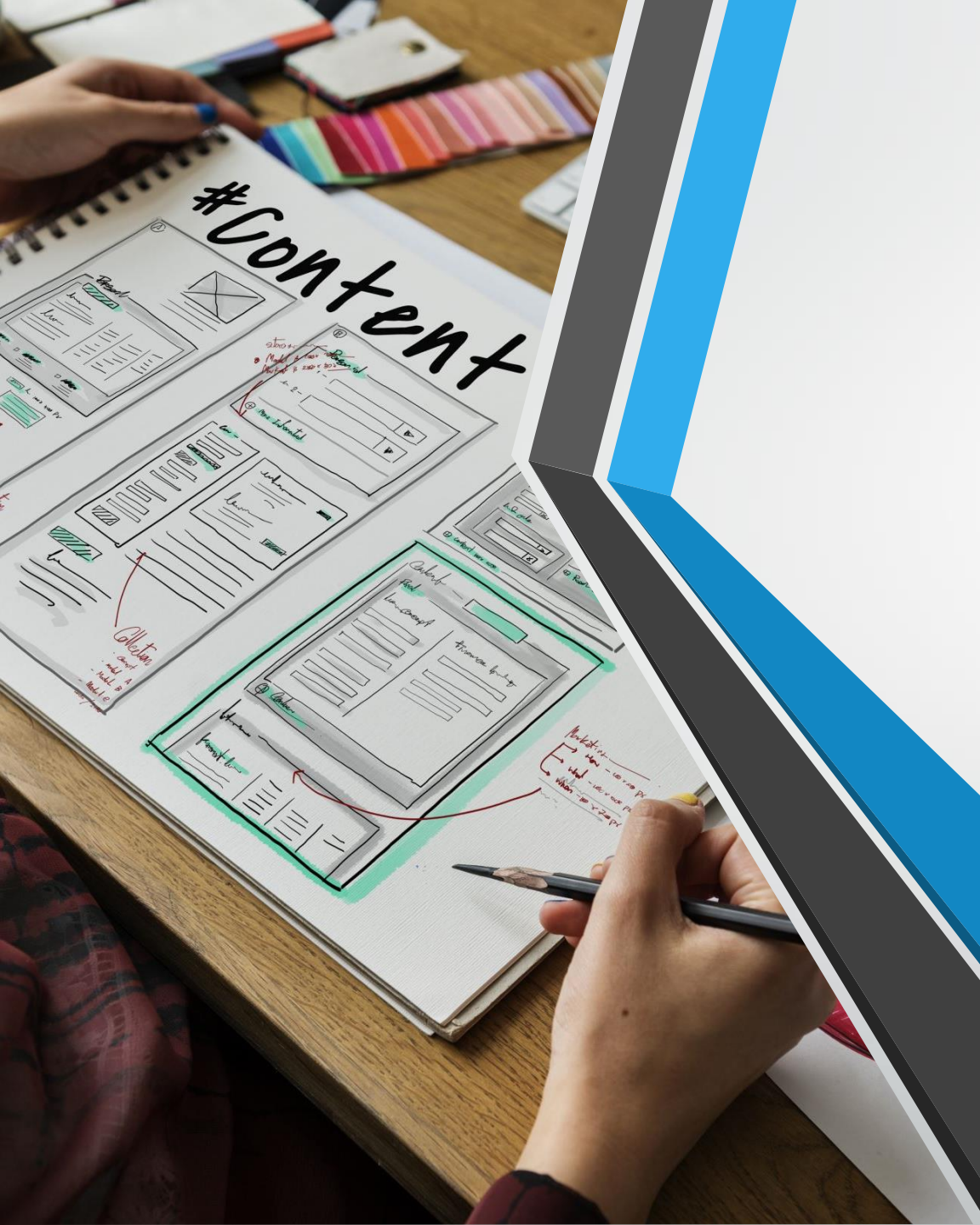
Global polio vaccination rates

Vaccine hesitancy.



Goals

- Improved knowledge of the global scale of the late effects of Polio
- Putting PPS on the diagnostic table for those presenting with new neurological symptoms
- Improving the patient journey to diagnosis



Thank You and Questions

Designing Survey Questions

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