The changing role of evidence on harms and benefits in US cannabis policy debates

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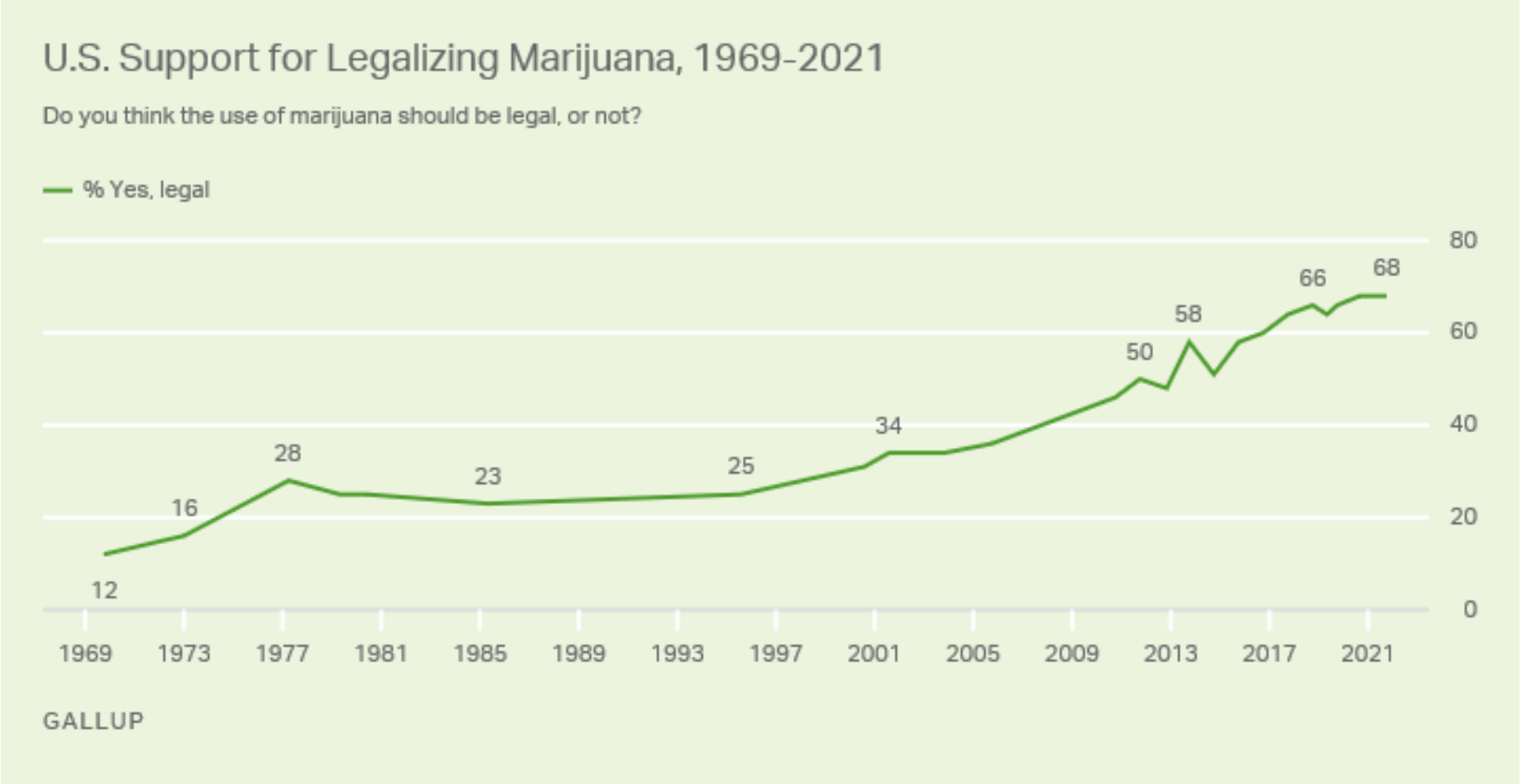
Disclosures

- WH
  - Consultant to WHO in 2016 and 2019-2022
  - Consultant to Australian government 2017-2018
  - Consultant to EMCDDA in 2018.
  - Member of Australian Advisory Council on Medical Uses of Cannabis 2018-2021
- EH
  - Consultant to WHO in 2019-2022
  - Consultant to German Government in 2016-2018 and 2020-2022.
  - Consultant to EMCDDA in 2015, 2016, 2021-2022.

Public support for cannabis legalisation in USA



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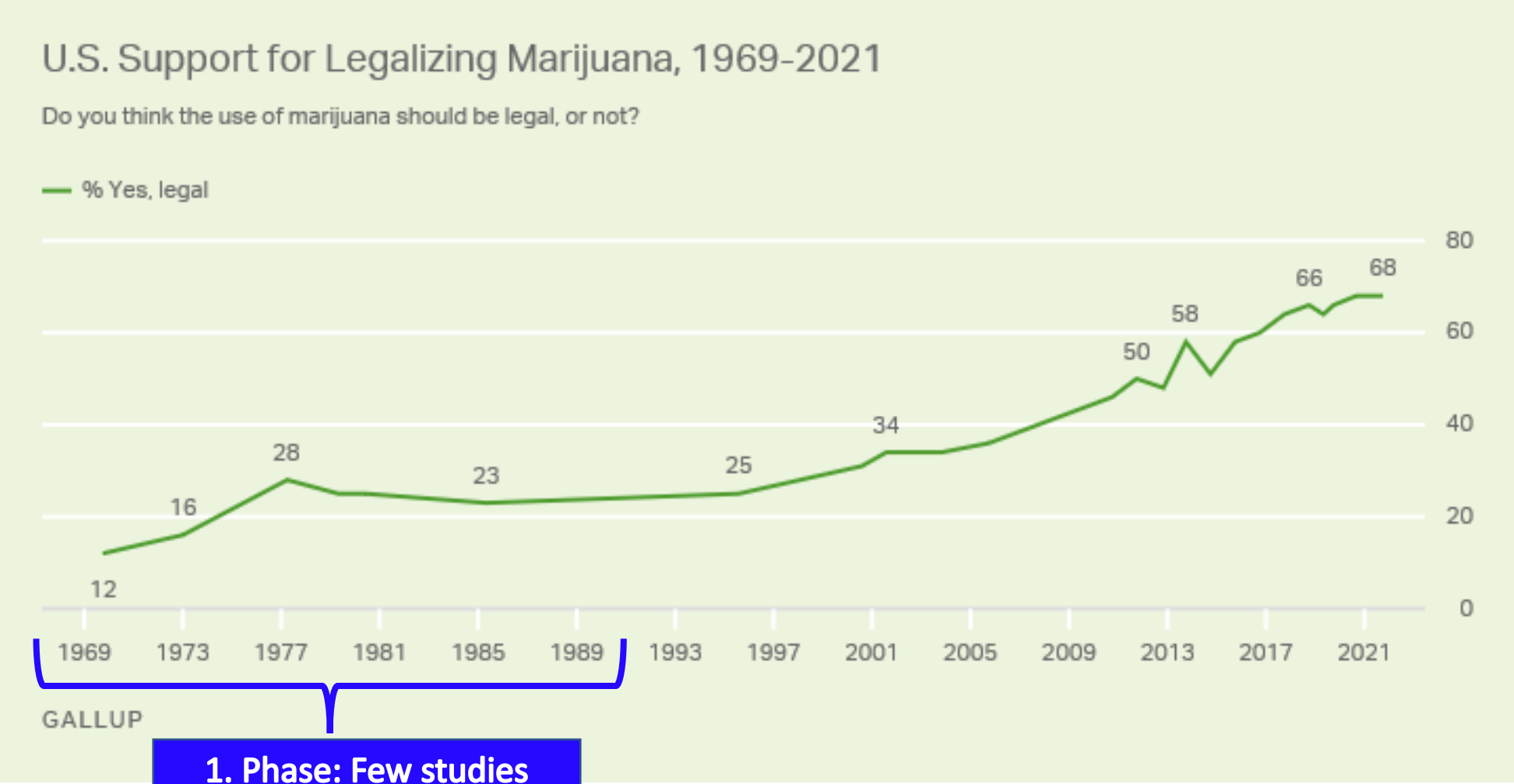

1. Phase: Weak evidence base (1960s to 1990s)

1962

- Cannabis is included in the UN Single Convention on Narcotic Drugs.
- Scheduled as “addictive drug that causes great harm and has no medical use.”
- This demand came from Egypt, a country with a high prevalence of heavy cannabis use in socially disadvantaged groups.

1970s

- Cannabis use increased among the youth in high income countries (e.g. USA, Canada and the UK).

1980s

- Small evidence base on the adverse health effects of cannabis (e.g. Australian Government, 1993; WHO 1997; Hall et al, 1998; Hall, 2014). Therapeutic effects of cannabis were not considered at all.

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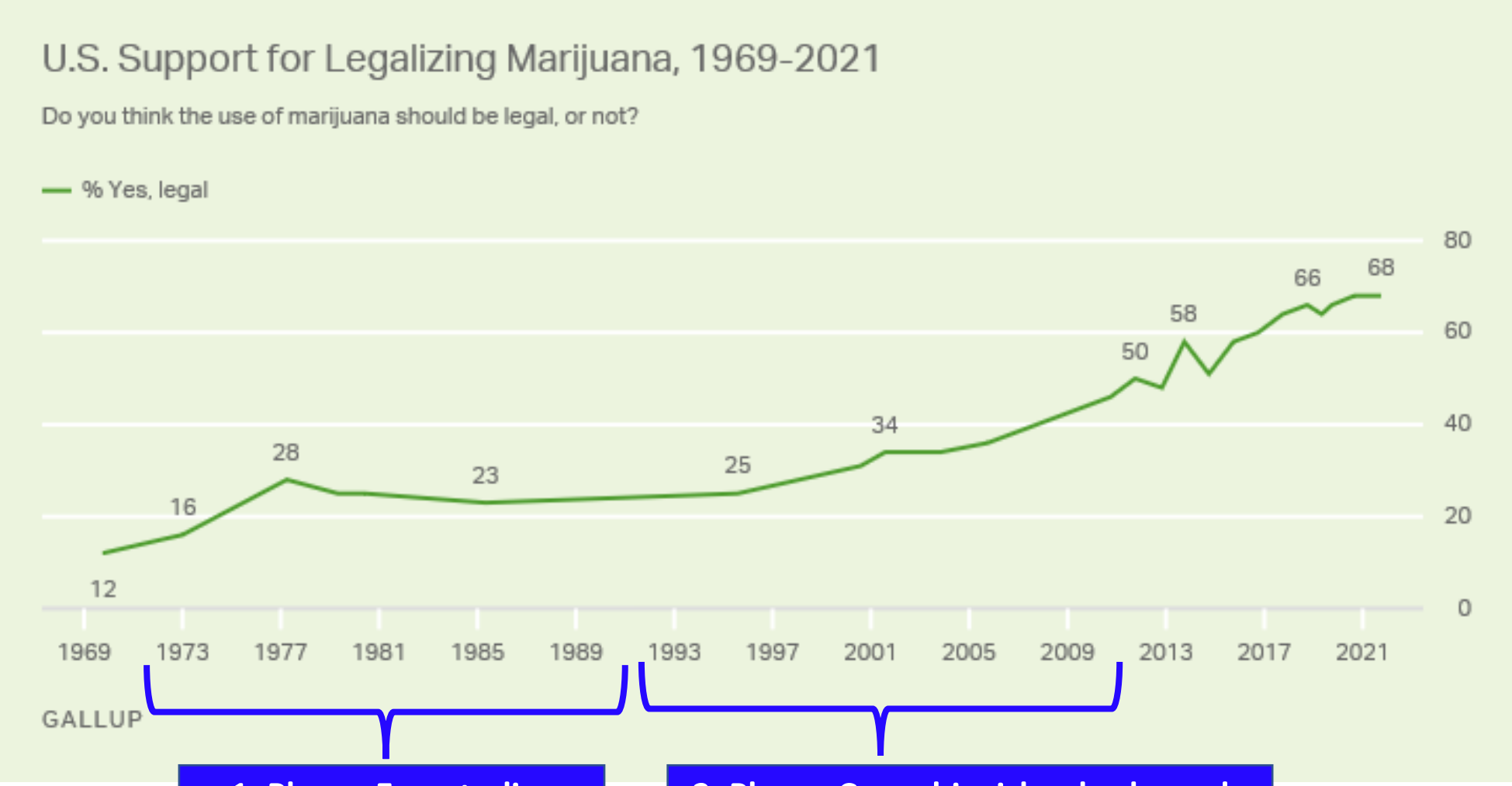

Phase 2: Harms of cannabis use play key role in policy (1990-2010)

1090ies: More studies on cannabis-related risks become available

- Gateway to more harmful illicit drugs
- Mental problems: Cannabis dependence, psychosis etc.
- Adverse cognitive and educational outcomes
- Motor vehicle accidents

=> Common arguments for prohibition

- Cannabis use was common among youth (middle class college students)
- Most cannabis use was infrequent and discontinued
- Adverse health effects of cannabis use were modest at worst and
- Less serious than a criminal record or its effects on education and employment

=> **Common arguments for decriminalisation**

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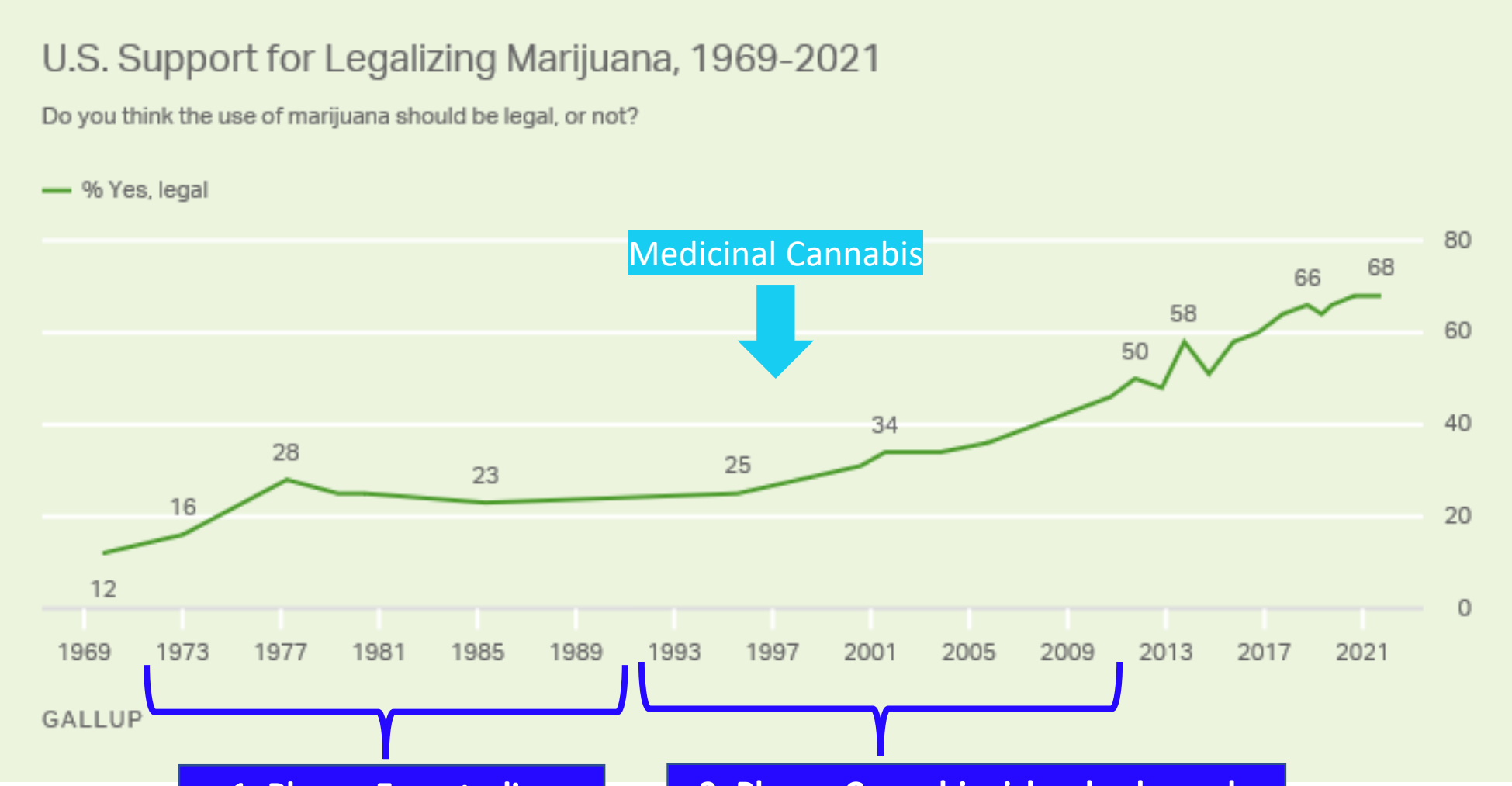


The “Game Changer”: Legalisation of medical cannabis in 1996

1996: California citizens’ initiative to legalise medical cannabis (`Compassionate act`)

- Cannabis was used to treat HIV / AIDS wasting syndrome.
- First cannabis prescribing doctors and cannabis dispensaries in California
- Other states followed, e.g. Washington State, Oregon, Colorado
- State medical cannabis laws conflicted with federal prohibition

2001-2008: George W Bush administration

- Threatened to prosecute doctors who recommended cannabis
- Federal agents raided cannabis dispensaries in California
- Supreme Court ruled that Federal law pre-empted state laws

In 2009: Barak Obama decided not to enforce Federal law

- If state authorities regulated medical cannabis responsibly
- Boom in retail medical cannabis outlets

How medical legalisation let to legalisation of recreational use in the USA

Liberal regulation of medical cannabis use

- Cannabis use was “medical“, if patient and doctor defined it as such.
- No FDA regulation, because cannabis was illegal under Federal law.
- A profit industry started, which was interested in promoting cannabis (for therapeutic and recreational purposes).

=> Medical use has increased public support for cannabis legalisation.

De facto legal cannabis market was created

- With no legal cannabis supply to retail outlets.
- Law enforcement struggled to enforce cannabis prohibition.
- In order to properly regulate medical cannabis market, legalisation of cannabis production was advocated.

Evidence on the effectiveness of medical cannabis

1980s Few early studies on HIV / AIDS or treat nausea in chemotherapy

1990s: Endogenous cannabis system was discovered

2010s: Support of CBD to treat therapy-resistant childhood epilepsy

- Clinical trial evidence for efficacy led to FDA approval

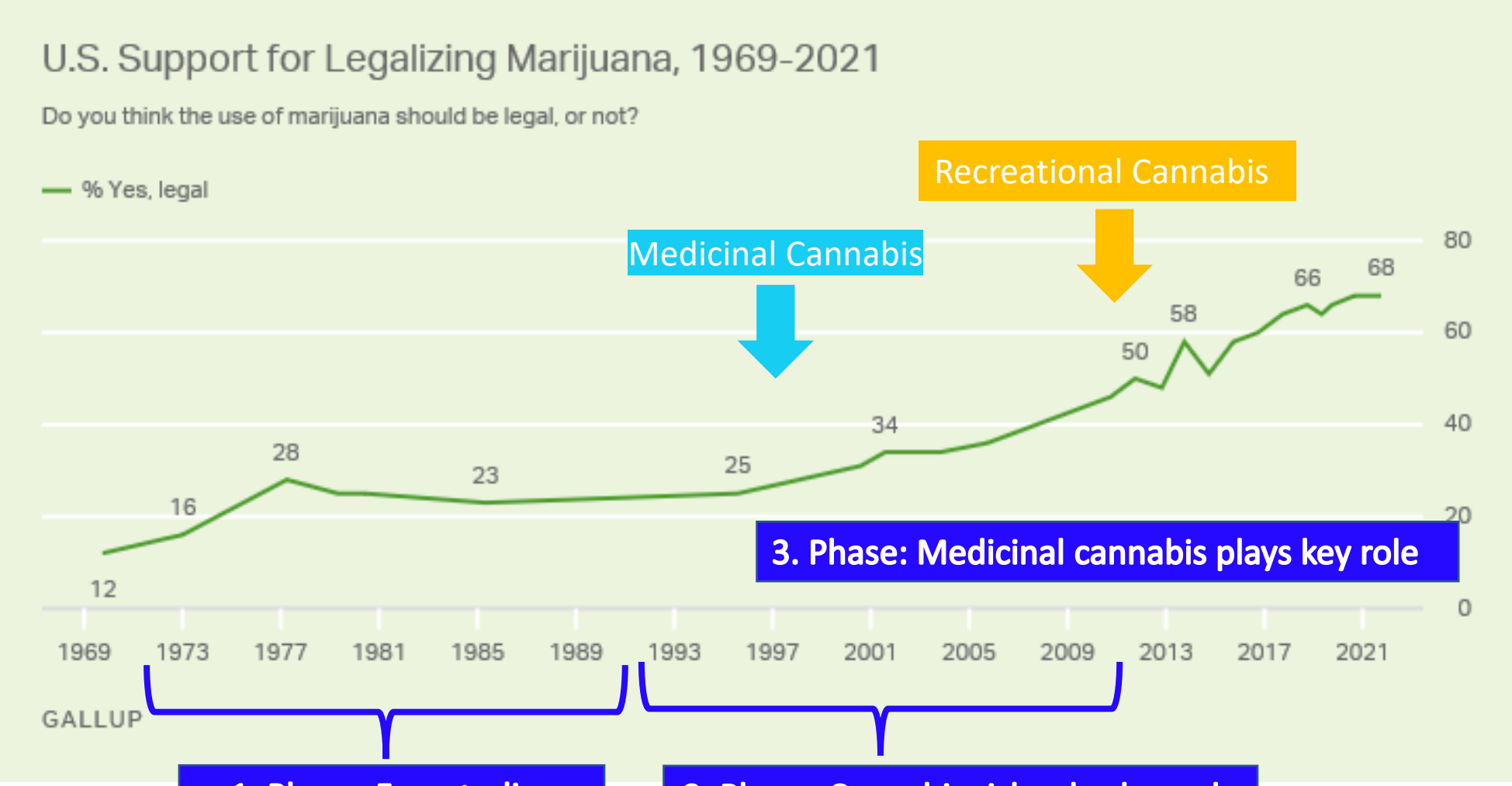
2020s: Medical cannabis more often used to treat chronic pain, anxiety, sleep etc.

- More studies become available
- Evidence of small effects for chronic pain, very weak evidence for anxiety and other conditions.
- Findings often not consistent or statistically significant.
- Side effects can occur (mostly mild and transient), long term effects unclear.

=> Double standards in public debates

- Small data base of therapeutic effectiveness is accepted.
- While larger evidence base of mental and social harms was often dismissed.

Public support for cannabis legalisation in USA



Legalisation of adult cannabis use in USA

Since 2011: Majority of US public supports cannabis legalisation

- Belief that cannabis was an effective, safe and regulated medicine.
- Public is used to presence of legal retail cannabis outlets.
- Advocates debunked adverse health effects (“reefer madness”, “fake news”).

Political context

- Many citizen initiated referenda for / against cannabis legalisation are condcuted.
- Philanthropic funding for campaigns (e.g., George Soros, Peter Thiel).
- Opposition poorly funded, threatened and disorganised.

A need of regulation after legalisation?

Popular arguments for legalisation

- The illicit cannabis market was unregulated and run by criminals.
- “Iron law of prohibition” created incentives to sell cannabis of higher potency.
- Legal cannabis is a source of tax revenue and law enforcement savings.

Medical cannabis industry involved in designing regulations in many states

- Industry lobbying to maximise competition with the illicit market (no limitation in products), lower taxes and less “red tape”.

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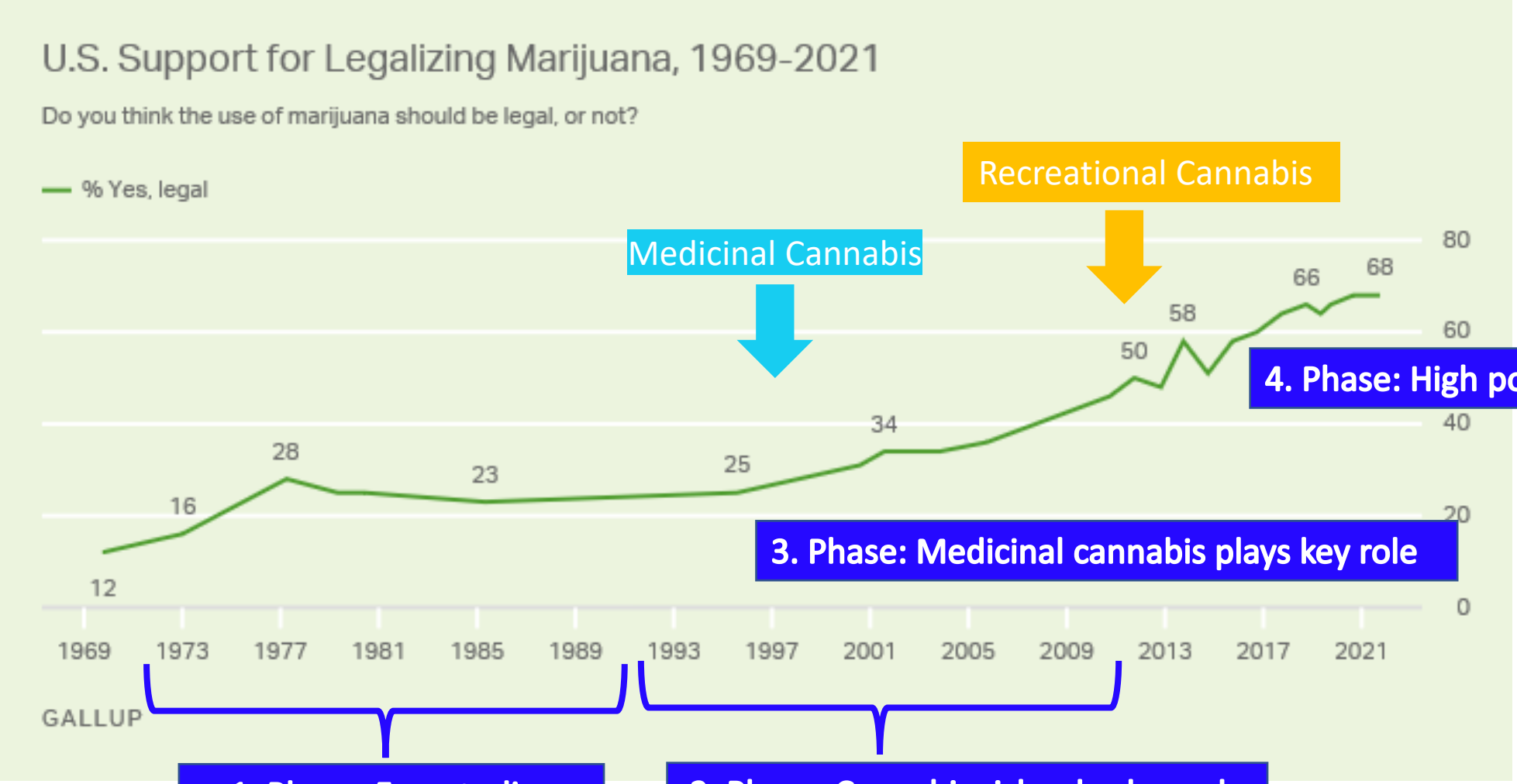

Since 2017: Potent cannabis products on US market

Increased diversity of more potent cannabis products

- Cannabis flower (16-20% THC)
- Wide range of cannabis edibles, vapes, extracts, concentrates (59-90% THC)
- infused pre-rolls (30% THC)

More potent cannabis products used by:

- Younger males who use daily
- Users from lower socio-economic backgrounds

What are the health effects of high THC products?

- Industry argues that potency does not mater as users can titrate their doses.
- Is that true? Evidence that cannabis users fully titrate high THC doses is weak.
- Emerging evidence of increased risks for acute harms (e.g. adverse reactions, accidents) and chronic risks (e.g. cannabis use disorder, psychoses, educational underachievement)

Better data on titration of THC is a public health priority!

Next steps: Learn from Alcohol market?

Ban the sales of high potency cannabis products

- Like alcohol: Most countries do not allow the sale of 90% ethanol.

Cap the THC content

- Where should the level of THC be set?
- What are the costs in enforcing the cap?

Graduate cannabis taxes based on THC content

- Similar to graduated alcohol taxes

=> Will there be illicit production and supply? Data and monitoring needed!

Final conclusions

- **Evidence on cannabis-related harms and benefits can inform and guide policy debates.**
- **More funding for high-quality studies needed.**
- **Equal standards how to conduct and interpret studies.**
- **Fairer appraisal of evidence on both sides: Benefits and harms!**

Thank you for your attention!