Democracy, Health and Health Care : democratic quality, decentralisation and public participation

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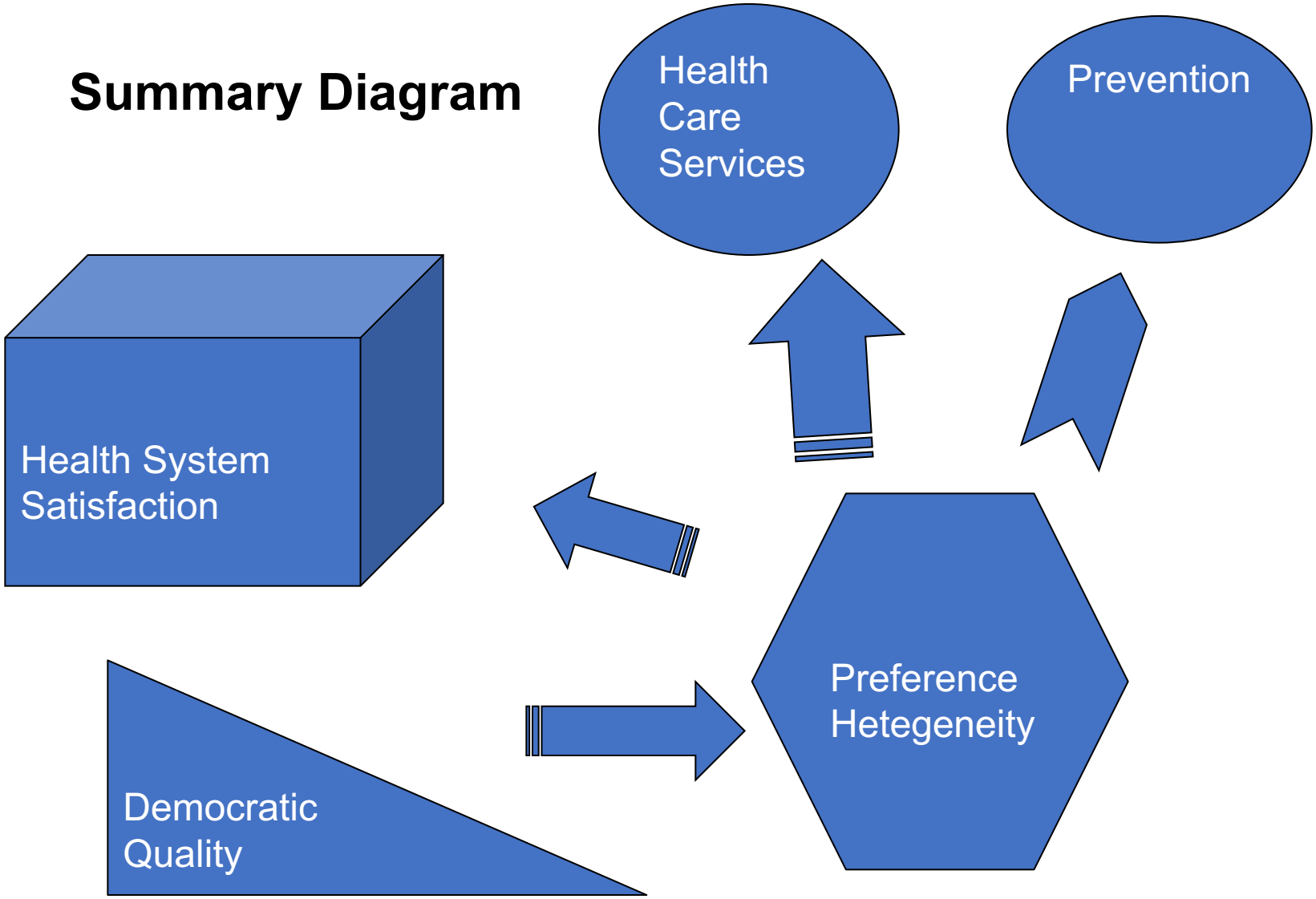
Summary Diagram



Preview

- Political institutions **are important** health determinants
  - they influence 'financial, organizational, and policy resources' (Krueger et al, 2015).
- We will show that **the quality of democratic institutions improves health and reduces health inequality**
  - produces **'distinct decisions**' increasing public expenditure
- **Furthering regional descentralusation changes preferences for public health care** and reduced uptake of PHI
  - Without increasing health care disparities
- Participatory (stakeholders engagement)
  - **budget experiments suggest public participation is feasible** and incentive compatible but often the public underestimates the costs of process and redistributive programs

What does Democracy stand for?

- **Core Idea:**
  - Democracy = each citizen has a voice but where policy is controlled **by officials elected** at regular intervals through universal suffrage/ **or subject directly** to choices of the constituents
- **Quality of Democratic Institutions (Evidence)**
  - Role of representative democracy assemblies, committees etc
- **'Accountability', 'Voice" and Choice (Mechanism A)**
  - devolution, provider and insurer choice, political agenda setting
- **Representative decisions (Mechanism B)**
  - Enhance the correlation between public preferences and public decisions

Overwiew of the talk

- **Part A**.
  - How the democratic quality affect heath care and ‘health’ as a priroity (v other priorities)? **[Macro –perspective]**
- **Part B.**
  - How does **regional descentralisation** (choice/accountability) affect health care preferences? **[Meso-perspective]**
- **Part C.**
  - Can we operationalise **public participation** in health system decison making? **[Micro-perspective]**

Part A

Democratic Quality and Health Care Systems

Democratic Institutions and Health

- 'Fit through democracy' (Sen, 1997)
- Positive relationship between democracy and life expectancy (Besley Kudamatsu 2006) **but unclear mechanisms**
  - Political regimes classified as democracies show lower infant mortality rates [Zweifel, T., and Navia, P.2000]
  - healthy behaviours and self-assessed health (Klomp and de Haan 2009)
  - Democracies are better at translating economic growth into total calorie consumption [Blaydes, and Kayser (2011)]
  - increase support for more redistributive programs (Acemoglu et al. 2013).
- But some studies find no effect [Houweling et al (2005)] or even a negative effect [Mackenback (2013)]

Democracy correlates with health

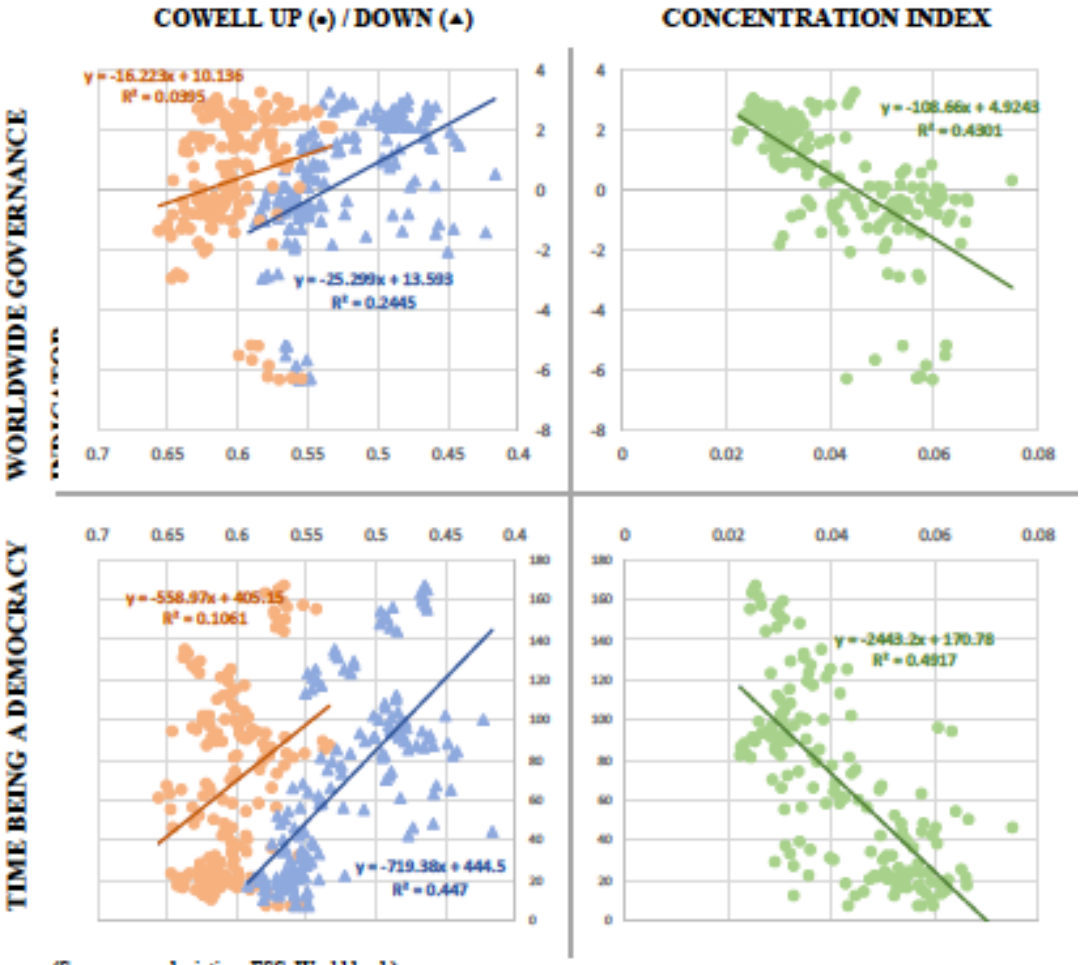
Table 2. Regression results. Conditional association between democracy and Health.
Period 1960 -2016

(A)	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	LifeExpBirth		MortRateU5		MortRateInf	
DemocracyDummy	1.338***	1.184***	-16.734***	-13.644***	-8.725***	-7.054***
	(0.130)	(0.127)	(1.150)	(1.037)	(0.604)	(0.555)
LogGdpPc	0.531***	8.190***	9.675***	-135.725***	1.457*	-81.777***
	(0.137)	(0.728)	(1.368)	(5.995)	(0.775)	(3.691)
c.LogGdpPc#c.LogGdpPc		-0.452***		8.662***		5.020***
		(0.044)		(0.396)		(0.243)
LogPop		3.914***		-60.901***		-28.620***
		(0.295)		(3.519)		(1.973)
Observations	7,262	7,262	7,412	7,412	7,412	7,412
R-squared	0.942	0.948	0.902	0.937	0.911	0.939
Clusters	181	181	182	182	182	182
Country FE	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES

Does Democracy reduce Health Inequality?

- ‘**Health-inequality trap’**
  - Democracy fails to deliver to the needs of minorities, and it becomes captured dominant elite (Powell-Jackson et al. 2011).
  - democratic societies may promote meritocracy which might not necessarily improve the health of the neediest (Krueger et al. 2015)

Figure 2: Association between different measures of inequality and the Worldwide Governance Indicators and Exposure to Democracy



(Source: own depiction, ESS, World bank)

Democracy and Expenditure

Table 6. Regression results using shares of expenditures

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	P2	P2	P2	P2Dummy	P2Dummy	P2Dummy	ANRR	ANRR	ANRR
	Hexp	PubHExp	PubHexp	Hexp	PubHExp	PubHexp	Hexp	PubHExp	PubHexp
VARIABLES	GDP	HExp	PubExp	GDP	HExp	PubExp	GDP	HExp	PubExp
Democracy	0.003	0.293***	0.006	0.074	3.227***	0.053	0.212*	2.229***	0.004
se	(0.008)	(0.065)	(0.021)	(0.081)	(0.701)	(0.205)	(0.110)	(0.587)	(0.279)
beta coeff	0.008	0.098	0.009						
GdpPc	-0.875	3.360	-8.432***	-0.875	4.526	-8.403***	-0.889	4.511	-4.409**
	(0.588)	(4.954)	(1.367)	(0.593)	(4.995)	(1.369)	(0.732)	(5.234)	(1.725)
	-0.574	0.270	-2.997						
GdpPc^2	-0.020	-0.195	0.342***	-0.020	-0.254	0.341***	-0.002	-0.235	0.113
	(0.036)	(0.298)	(0.083)	(0.036)	(0.300)	(0.083)	(0.045)	(0.316)	(0.103)
	-0.222	-0.266	2.065						
Pop	-1.494***	6.808***	-3.055***	-1.498***	6.764***	-3.055***	-1.192***	9.989***	-1.503**
	(0.211)	(1.673)	(0.442)	(0.212)	(1.674)	(0.442)	(0.343)	(2.399)	(0.732)
	-0.989	0.553	-1.097						
Observations	2,921	2,921	2,916	2,921	2,921	2,916	2,772	2,772	2,767
R-squared	0.865	0.896	0.784	0.865	0.896	0.784	0.857	0.915	0.772
Clusters	154	154	154	154	154	154	176	176	176
Country FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES	YES	YES	YES

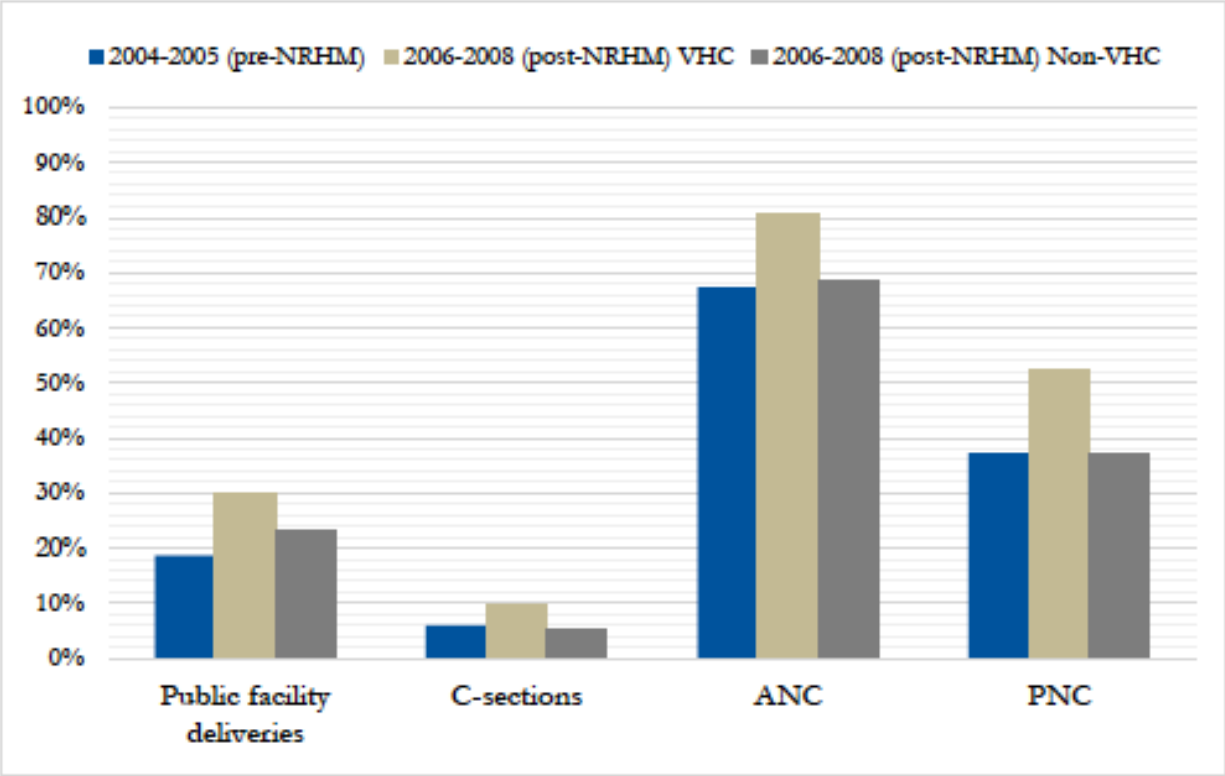
Notes: Robust standard errors in parenthesis. *** p<0.01, ** p<0.05, * p<0.1

Does Local Democracy enhance Prevention?

- India's health care is largely privatised, that is, about 70% of households visit and pay private providers out of pocket.
- Village meetings (Gram Sabhas) are called by the Village Panchayat (VP) – including 1 to 5 villages - to discuss resource allocation decisions in the village including healthcare
- Village Health and Sanitation Committees (VHCs) on the use of maternal and preventive health care

Maternal Care

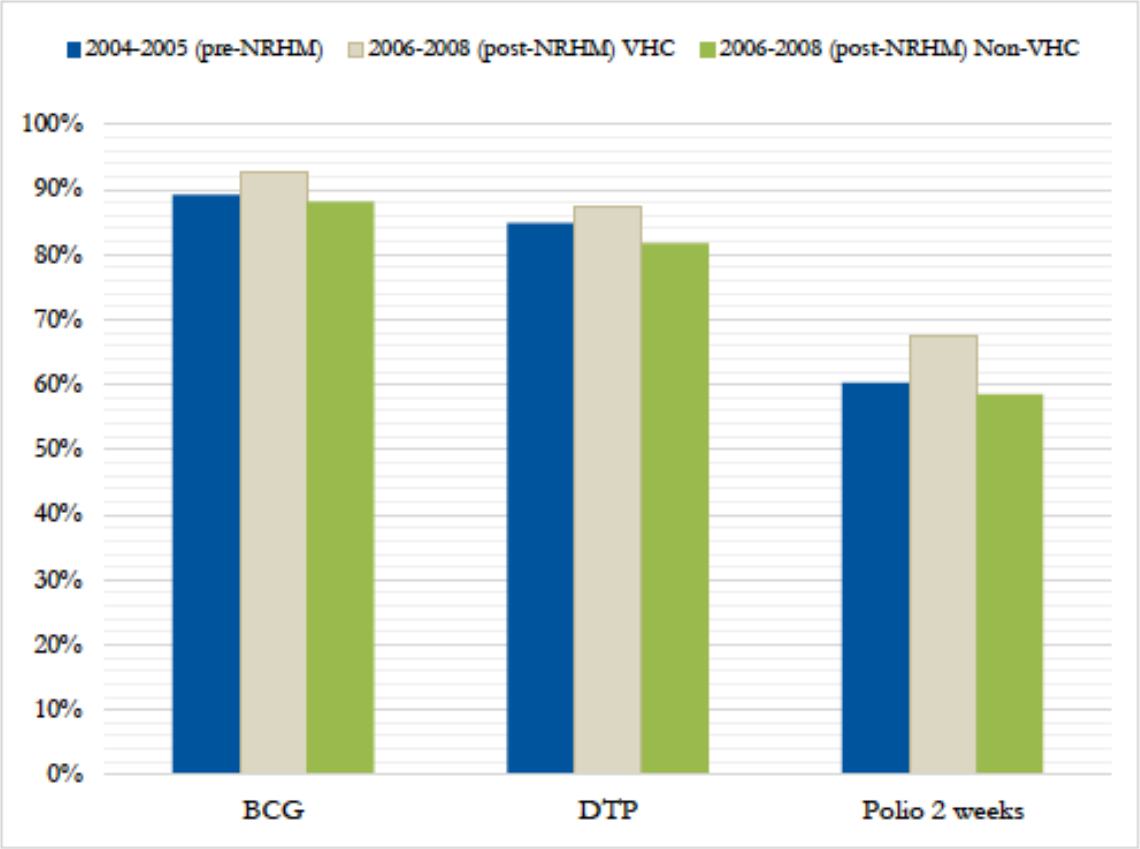
Figure 2: Maternal health care use, pre- and post-NRHM



Source: Indian District Level Household surveys, all waves.

Inmunitzacion effects

Figure 1: Immunization uptake, pre- and post-NRHM period



Source: Indian District Level Household surveys, all waves.

Conclusion 1

- Further partcipation produces difference healh but only on public health expenditure
- Local democracy changes prioirties on preventive and maternal health care

Part B

Regional Descentralisation and Health Care Systems

Decentralization and Health Care (I)

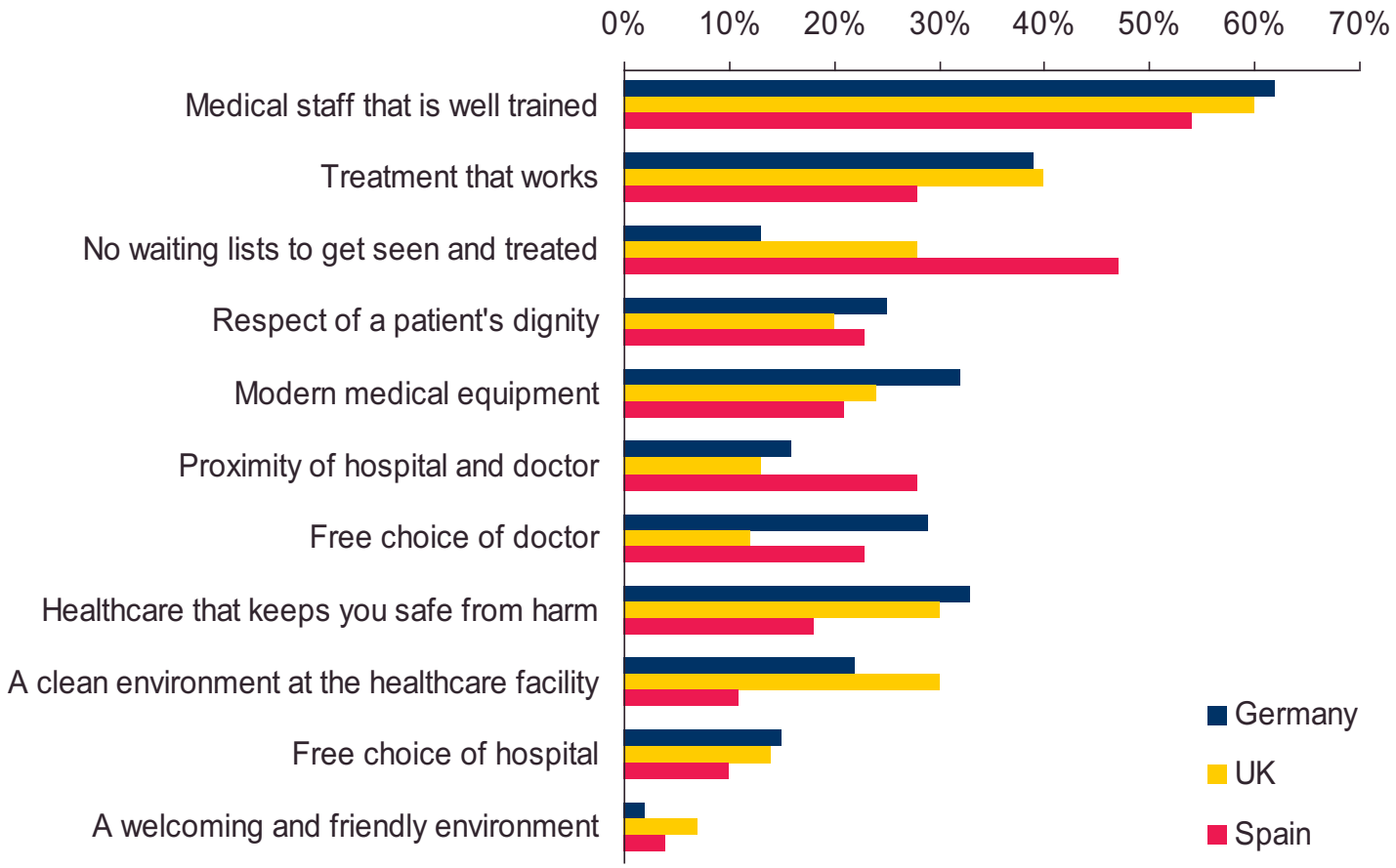
- Feasibility of tax funded national health services (NHS) is compromised if citizens question the quality
- If NHS falls short of expectations (e.g., waiting list and times, amenities, etc.), individuals can use substitutes ex post (Propper, 1996) or ex-ante (Besley *et al*, 1999).
- How to keep individuals using the NHS?
  - Private health care lessens pressure to the NHS and improve the quality of those who stay.
  - However, can also compromise the political support of the NHS
- **An institutional response is regional decentralization, more so if preferences are heterogeneous**

Decentralization and Health Care (II)

- Political decentralization fragments the median voter at the regional level
  - incumbent in each region has incentives to deliver the health care that satisfies the median regional voter
  - Regional decentralization strengthen political agency (Besley, 2006)

Reasons for high quality healthcare

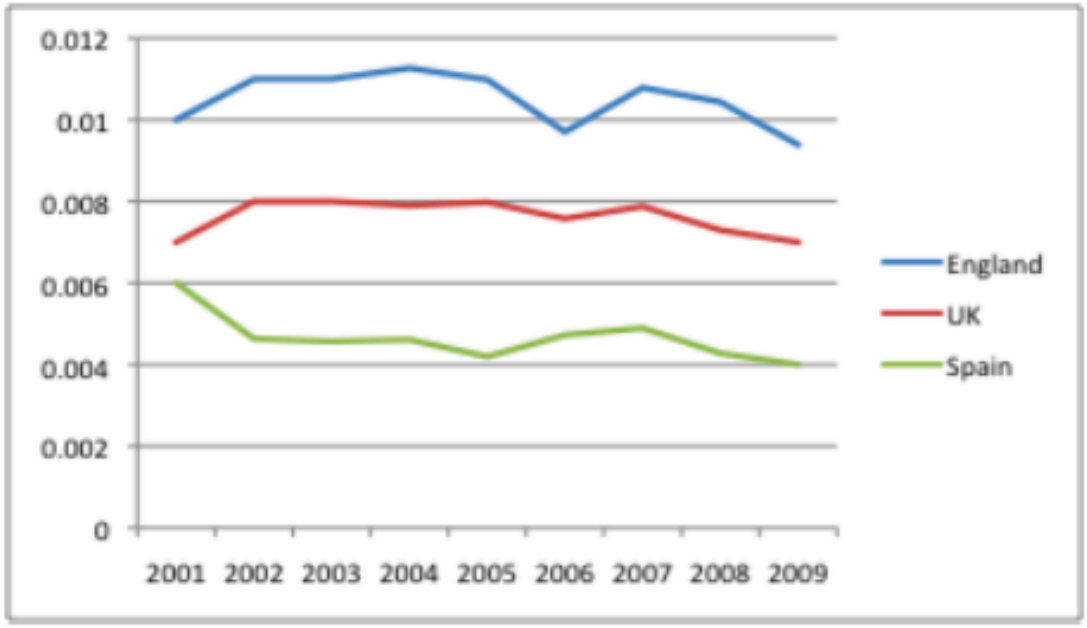
Of the following criteria, which are the three most important criteria when you think of high quality healthcare in (our country)?



Source: Eurobarometer/nVision
Base: 1,000 respondents per country aged 15+, 2009

Descentralisation and regional Inequality

Figure 2.
Regional Inequalities on Unadjusted Health Care Output (expenditure per capita)



Source: MT Treasury and Spanish Ministry of Health, 20012. Note: Inequalities are measures as the coefficient of variation of the unadjusted per capita health care spending in each of the units examined. The coefficient of variation is defined as the ration between the standard deviation and the mean of the variable.

Spanish 'unique experience' (I)

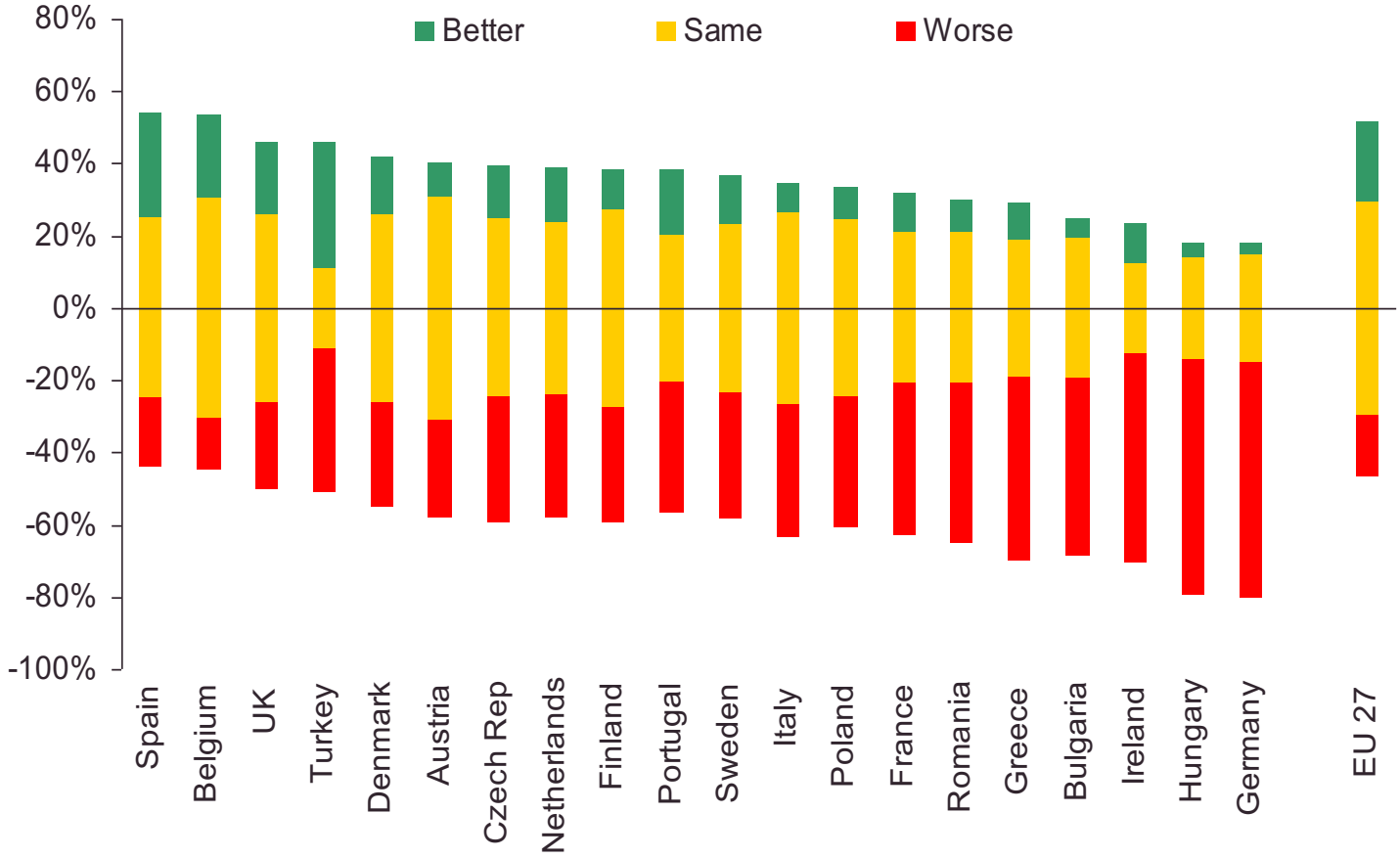
- We draw upon probably one of the main experiences of countrywide health care decentralization in Europe which took place in Spain since 1981 and then in 2002
  - Other: United Kingdom's devolution of health care to Scotland, Wales and Northern Ireland after 2000, and decentralization in Italy after 1978 and 1997.
- Decentralization took place in two different waves
  - Effects of decentralization can be distinguished from other effects such as the country democratization alongside macroeconomic conditions.
  - More precisely identified and qualifies as a 'natural experiment'.

Spanish 'unique experience' (II)

- Transfers of health care responsibilities:
  - First wave: Catalonia 1981; Andalusia 1984; Basque Country & Valencia 1988; Galicia & Navarre, 1991; & Canary Islands, 1994.
  - Second wave: remaining 10 regions in 2002 (*treatment group*) (before that NHS remained centrally run)
- All 17 regions but 2 were subject to the same financial constraints (Lopez-Casasnovas et al, 2005) → differences in access to public NHS between region is not driven by differences in resources, but by policy differences.
- We run a DiD and exploit different sources of heterogeneity

Spain toped the rank in 2008/9

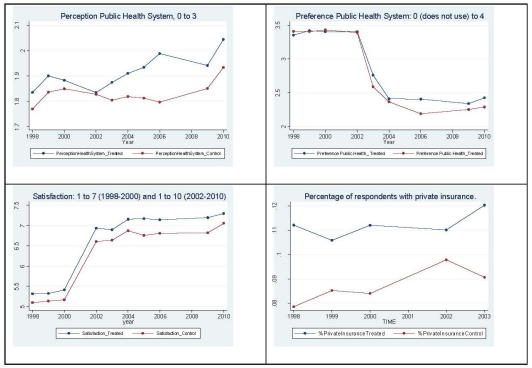
Compared with five years ago, would you say things have improved, gotten worse or stayed about the same when it comes to *Healthcare provision* in our country?



Source: Eurobarometer/nVision
Base: 1,000 respondents per country aged 15+, 2009

Results preview

- Decentralization reduced PHI uptake for higher income individuals..
- Decentralization increased self-reported preference for NHS & positive perceptions about the NHS


Perception Public Health System, 0 to 3
Preference Public Health System: 0 (does not use) to 4
Satisfaction: 1 to 7 (1998-2000) and 1 to 10 (2002-2010)
Percentage of respondents with private insurance.

Baseline Results

	Perception	Preference	Satisfaction	PHI
Treated	0.282***	-0.064**	0.185***	0.059
	(0.021)	(0.036)	(0.020)	(0.057)
Post 2002	0.129***	-1.103***	-0.031**	0.580***
	(0.015)	(0.026)	(0.014)	(0.035)
D*Post	0.076***	0.127***	0.021*	-0.045
	(0.012)	(0.021)	(0.012)	(0.033)
N	67692	67641	55297	47723

Controls: female, age, income, educ., occupation, year &time FE.* $p < 0.1$,** $p < 0.05$,***$p < 0.01$.

Overall results are consistent with decentralization shifting preferences for NHS use (not sign. PHI).

Heterogeneous effects: income

Treated*Post	Income<900	900<inc.<1800	Income>1800
Perception	0.130***	0.084***	0.123***
	(0.029)	(0.021)	(0.027)
Preference	0.142***	0.067*	0.290***
	(0.043)	(0.036)	(0.053)
Satisfaction	0.121***	0.018	0.020
	(0.028)	(0.020)	(0.027)
PHI	-0.038	-0.028	-0.131**
	(0.115)	(0.061)	(0.060)
N	25%	50%	25%

Only two statistically significant differences

Conclusion 2

- Evidence that political decentralization increase preferences for use of public health care (stated demand), perception for the health system, and PHI take up and satisfaction for some groups.
- Heterogeneous results across income groups.
- Regional decentralization can potentially change certain dimensions of health care quality and expand further the use and support for the NHS reducing the uptake of PHI.

Part C

Participation and Budget Experiments in Health Care

Why further participation?

- As a natural response of western systems governed by elitism
  - decisions need legitimacy, and reflect broad social values.
- Technocratic systems fail because ignores several dimensions of value above and beyond ‘health gain’ (Olsen, 1997).
  - Priority setting entails ‘choosing between values’
- Participatory budgeting can improve access to vital public services,
  - Porto Alegre between 1989 and 1996 for sanitation (Santos, 1998).
- Lindholm et al (1997), using interviews of Swedish politicians, reveal that public preferences do not follow cost-effectiveness criteria in the presence of inequality.

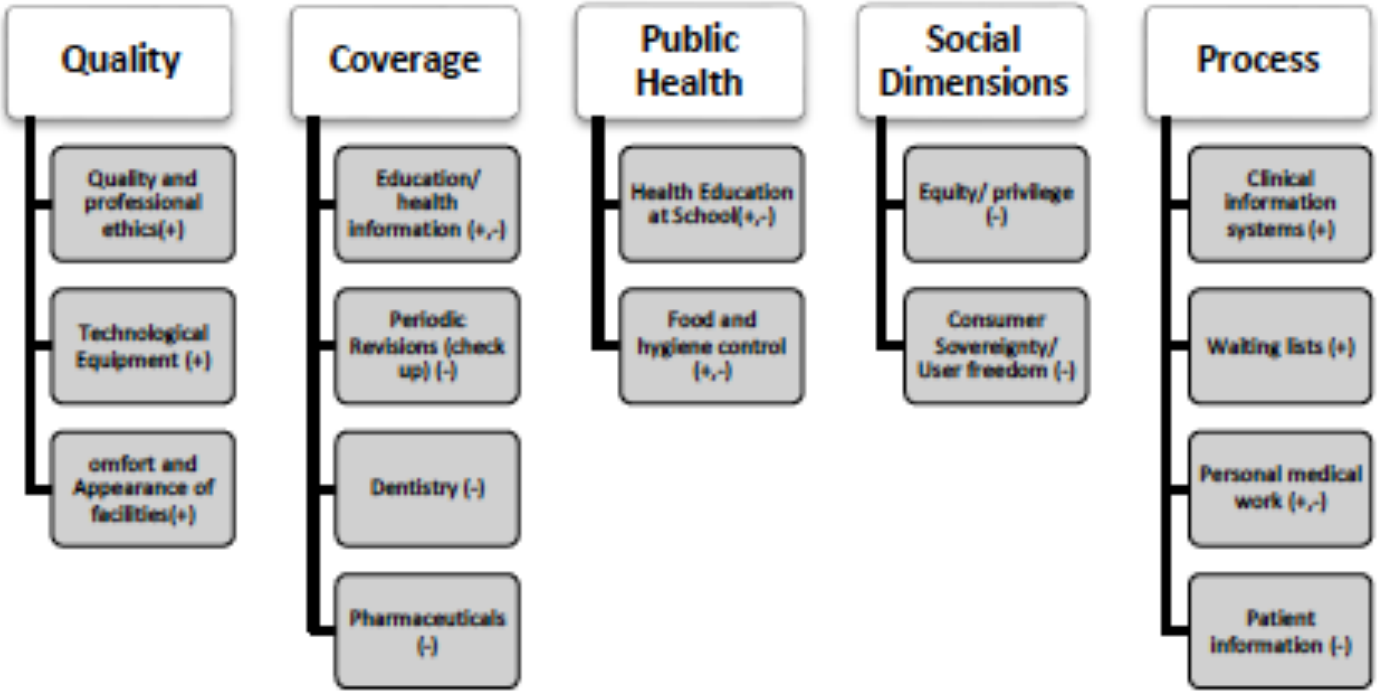
When does public participation fail?

- Some evidence from Ontario suggests that citizens are generally reluctant to be involved in setting priorities (Lomas 1997)
- Goold et al (2005) disenfranchised, generally uninsured and less educated are less motivated by such exercises.
- Evidence from Spain (CIS, 2006) suggested35% of the population would participate in participatory experiments – paradox of participation

How to involve the public?

- Involving patients, service users (or 'consumers') and the general public through deliberative methods
- Goal : decisions are informed, transparent and legitimate (Handler *et al*, 2001; Abelson, 2003).
- Problems :
  - elicitation experiments lack realism, and often reduce the decision-making question to a handful of programs
  - do not capture the set of value trade-offs that health systems regularly make
  - individuals often construct their preferences 'on the spot'

Figure 1
Health system values classification



Note:This figure shows the value classification resulting from of a set of focus groups where participants were asked to elicit the values perceived from the Catalan Health System.

Table A2. Health care reference programs listed in advisory of the Catalan Health Service

Program and definition	(Values), Expected outcomes and Costs in millions
1.Breast Cancer: (Biennial Mammography to all women between 50 and 65 years old)	(Coverage 1.3) Mortality reduction by 15% **Cost: 150**
2.Coordination between primary and specialised care (programmed meetings between GP's and specialists)	(Quality 3.2.2) Improvement in patient experience and outcomes. **Cost :100**
3. Professional Integration of Medical Histories (Immediate access to the medical history of all patients)	(Quality 3.2.1) Efficacy and quality of care improvement **Cost: 500**
4.Attention and User Information (Communication campaign on the existence of health care units)	(Accessibility 2.3) Access, information and user's satisfaction improvement. **Cost: 100**
5.User Treatment (30 hour training program with all administrative personnel)	(Quality Process 3.2.5) Improvement in patient satisfaction **Cost: 300**
6. **Medical Revision** (Volunteer medical revision for the whole population once every three years)	(Coverage 1.3) Early detection consultation on hypertension, alcoholism, gynaecological revisions, etc **Cost: 500**
7.Waiting Lists (Reducing waiting lists in non-elective surgery)	(Accessibility 2.1) Reduction of waiting time from 240 to 120 days **Cost: 700**
8. Life styles (Communication program on improving parental healthy habits)	(Public Health 4.1) Promotion of healthy life styles, improving communication and collaborations between parents and children. **Cost: 100**
9.Odontology (Free provision up to 12 years of odontology services, currently only extractions covered)	(Coverage 1.4) Improvement of dental health **Cost: 2000**
10. Medicines Bonus (An annual income adjusted bonus rather than a co-payment after).	(Social Dimensions 5.1) Improvement in equity. Nobody would pay more, but people with less income could value. Currently co-payment is 40% of the drug price and chronic illness 10%. **Cost: 2000**

Health system values con't

Table 1 Health System dimensions reduction from value ratings (Principal components analysis)

Rotated Component Matrix[a]

	Component		
	HEALTH GAIN	PROCESS UTILITY	EQUITY
ACCES	.125	-.736	.453
QUALITY	.861	.223	-9.289E-02
COVERAGE	-.826	6.835E-02	-6.171E-02
SOC.DIM	-6.136E-02	-7.443E-02	.882
RESOURCES	.118	.906	.138
RESULTS	.705	-.152	-.379
PUBLIC HEALTH	-.778	-5.427E-02	.659

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

[a] Rotation converged in 5 iterations.

Note: The Table above reports the principal component analysis of the values associated with each program listed in Table A2 by participants.

Results from Budget experiments

- **Budget pie** experiments are chosen because:
  - More **aligned with societal preferences** [Skedgel et al (2013)]
  - only **a small fraction of individuals prioritized health gain** [Schwappach (2003)]
- Capture **trade-offs related to other programs**
- **Findings:**
  - We have found that individuals value more than health gain
  - but programs attaining mainly process utility and access (equity) benefits do not garner a high funding allocation

Conclusion 3

- Public participation allows overcoming preference revelation problems:
  - Legitimises decisions but not overly welcomed,
    - so has to be made easy!
  - And reveals that although **people value more than health gain**
    - but are not willing to sacrifice health gain for other benefits

Democracy, participation,….. souffle?

- Democracy brings beter health, more public health care, but not always more expenditure!
- Democracy reduces individual health inequalities and regional inequalities
- Devolution (and choice) improves quality of care and it is an alternative to privatisation
- Public participation is feasible but redistributive programs might not be prioritised

In a democracy, what should a healthcare system do? A dilemma for public policymakers

(Oswald, M in *Politics, Philosophy & Economics)*

”a healthcare system in a democracy should do ***as much good as possible****, although sometimes we should* ***sacrifice some overall good for the sake of fairness****”*