

Evaluating England's "New Deal for Communities" Programme using the Difference in Difference Method



Dr Roxana Gutiérrez-Romero
University of Oxford



Introduction

- n Wide gap in living standards between the most deprived neighbourhoods in England and the rest of the country.
- n This gap grew during the economic recession of the 1980s and 1990s.
- n Poor neighbourhoods struggled to adapt to the declining importance of manufacturing and the rising demand for skills.
- n Unemployment increased particularly in these poor neighbourhoods.



Policy Intervention: New Deal for Communities Programme

- n Locals assess needs and policies
- n Aim: Narrow the gap between 39 of the most deprived neighbourhoods in England and the rest of the country
- n Five priority themes:
 - Worklessness (unemployed and unable to work due to sickness)
 - Crime
 - Health
 - Education
 - Living Environment
- n 10 years Programme
- n Each NDC receives £5million per year. **Total cost of programme 2 Billion British Pounds** (3.6 Billion USD)

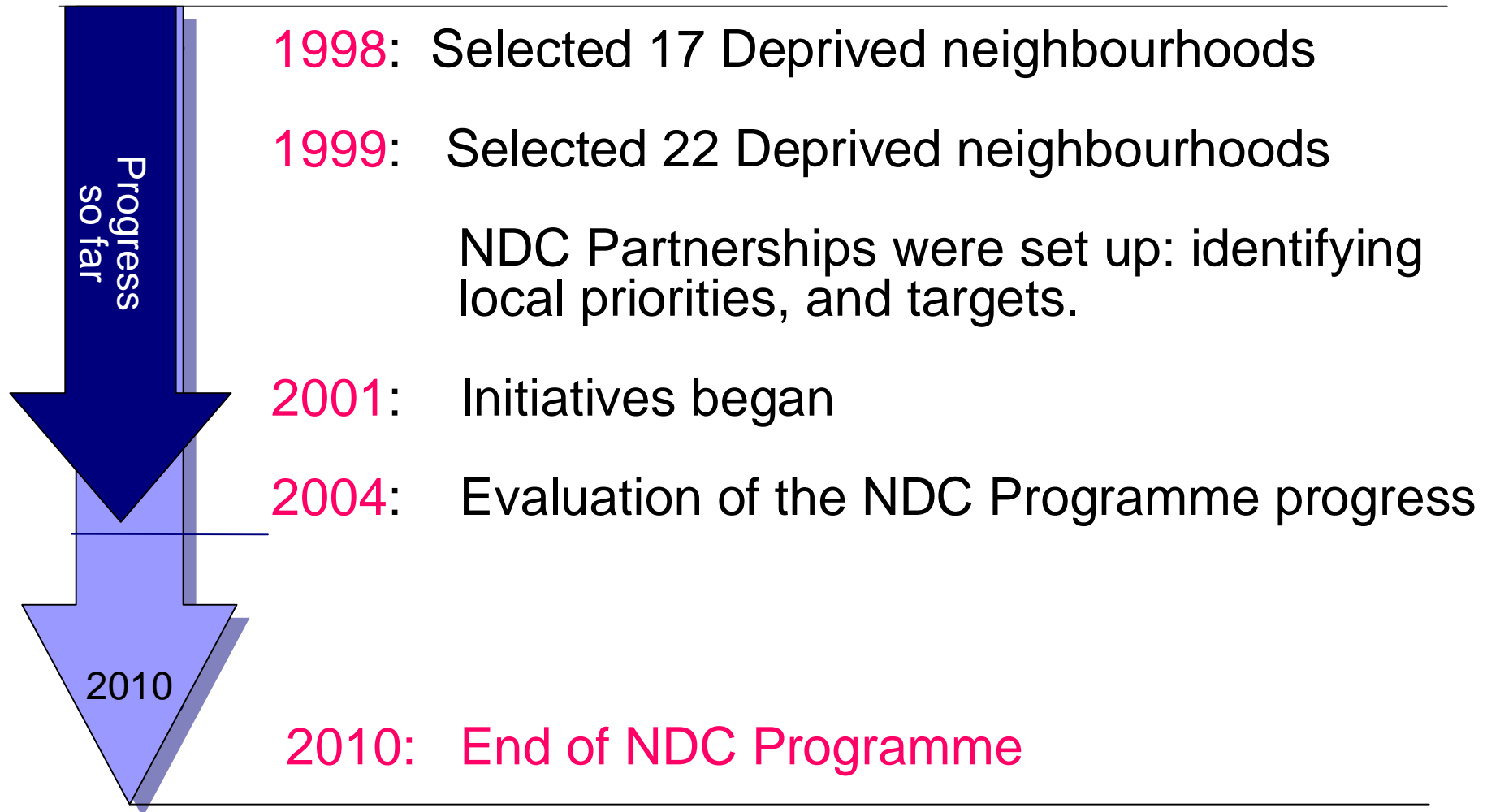


Research Questions

- n What has been the net impact of the NDC Programme on worklessness?
- n Has the NDC Programme narrowed the gap in worklessness?

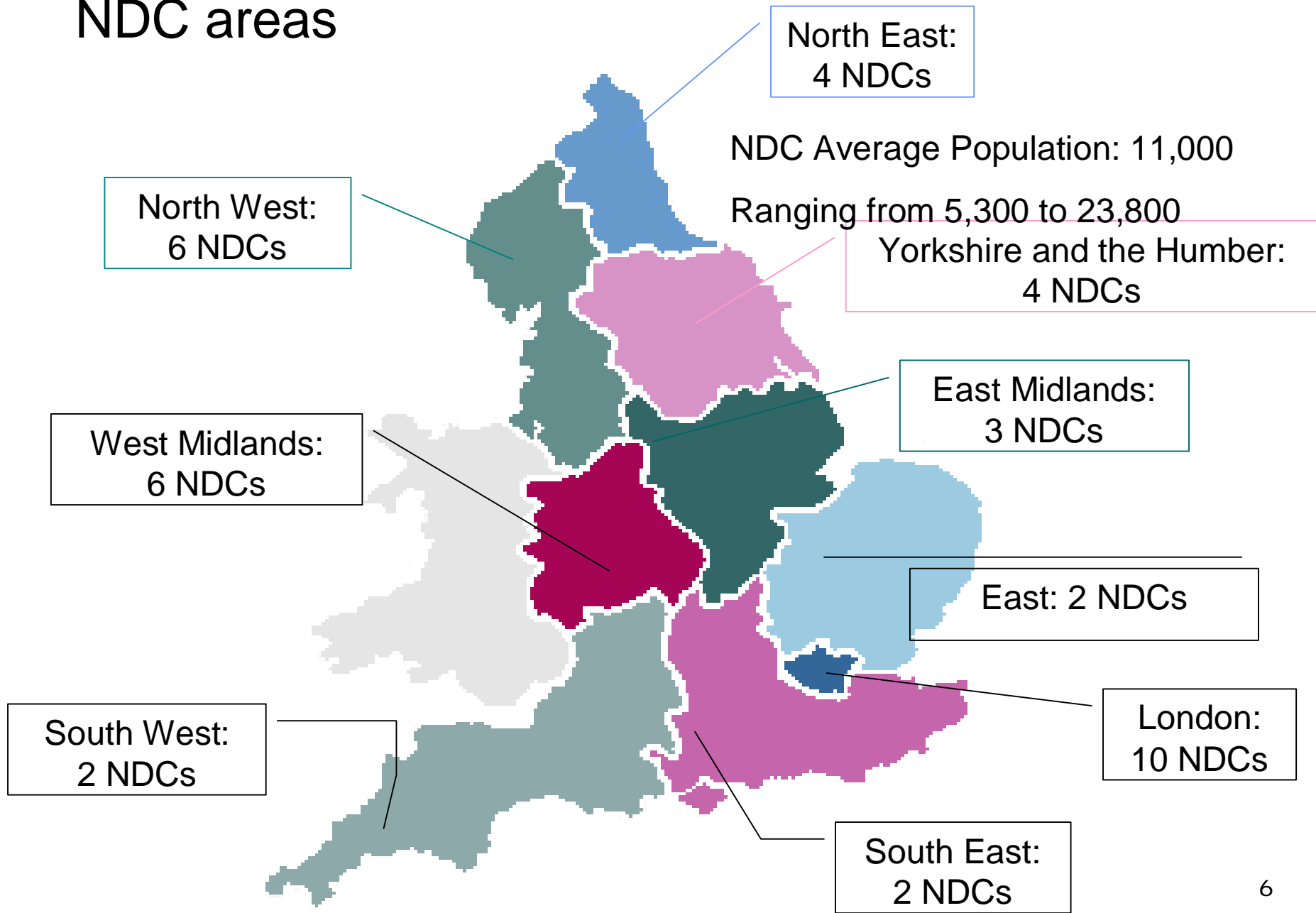


NDC Programme



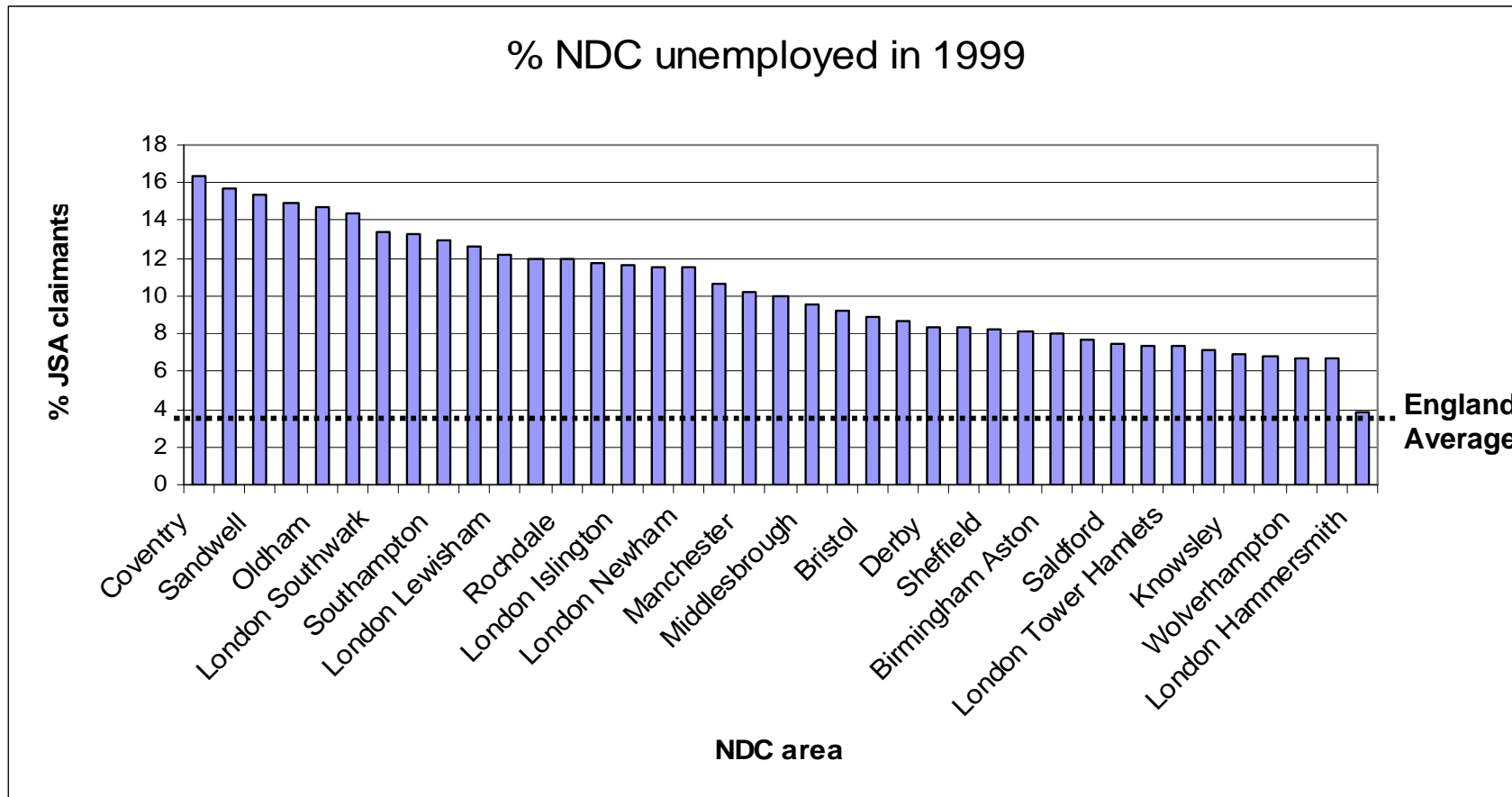


NDC areas





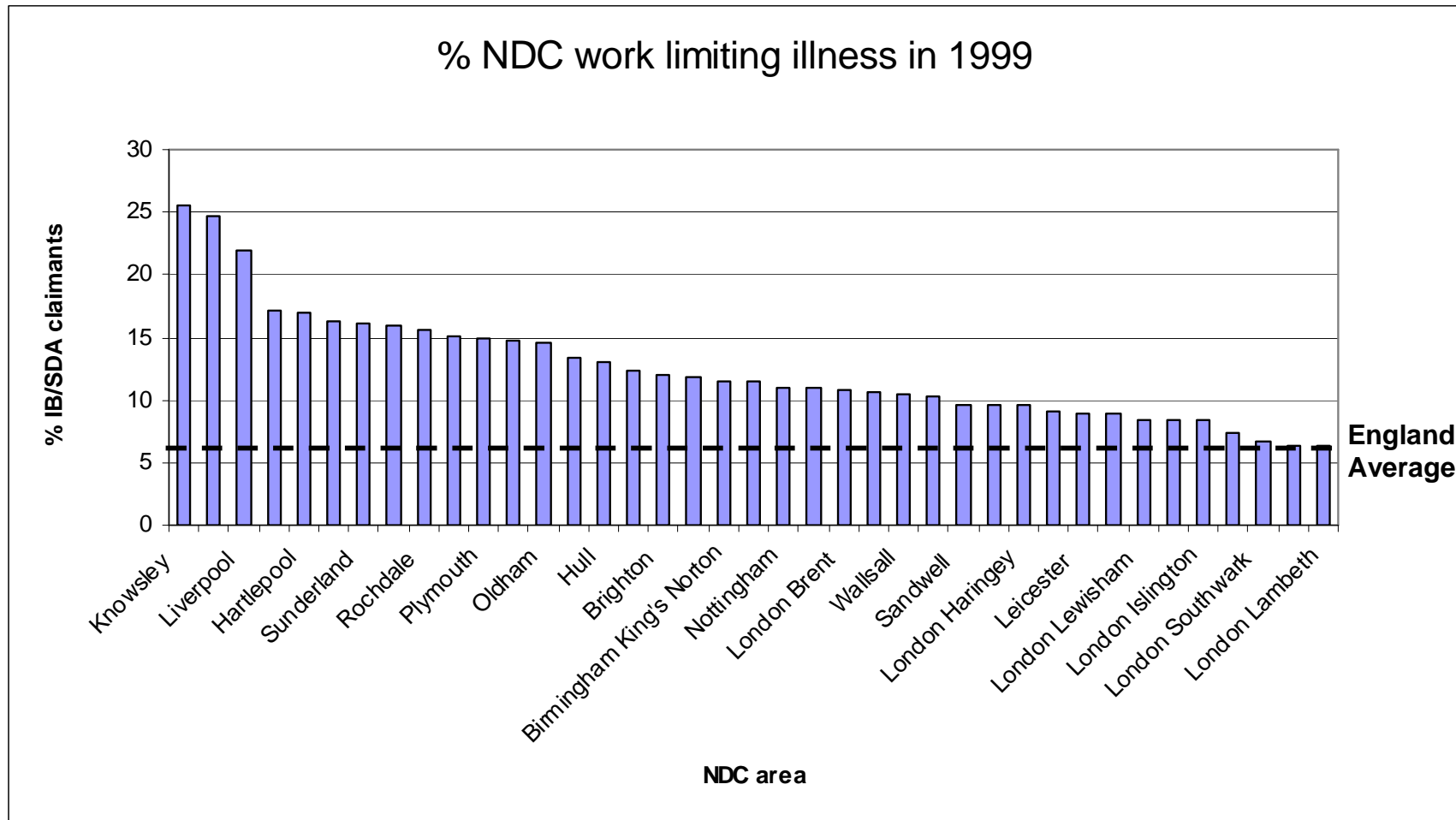
NDC Unemployed Rates in 1999



Source: SDRC using DWP data



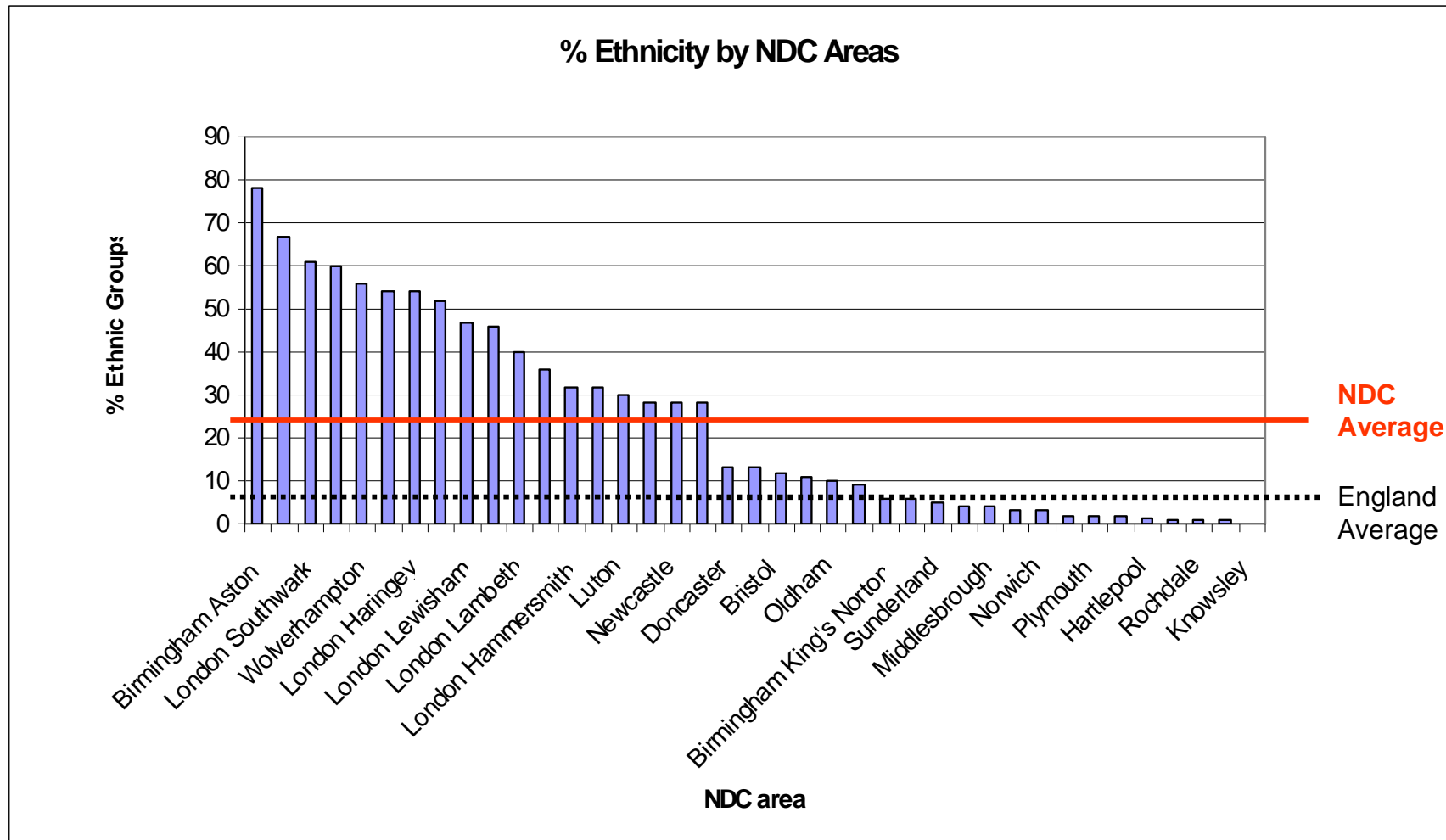
NDC Work-limiting Illness Rates in 1999



Source: SDRG using DWP data



NDCs Characteristics



Source: CRESR (2003)



Examples of NDC Initiatives

- n Training jobless people
- n Enhancing inter-personal skills
- n Basic literacy and numeracy
- n IT support to aid job search
- n Support to micro-enterprises
- n Engaging local entrepreneurs



How do we evaluate the NDC Programme?

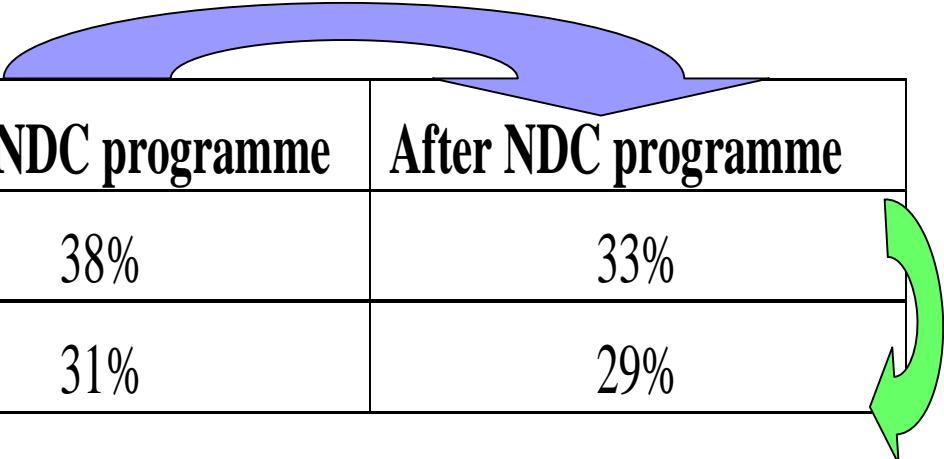
- n **Challenge:** Assess what the situation would have been in NDC areas in the absence of the programme.
- n We cannot observe the outcome of NDC areas would have experienced had they not been selected in the programme.
- n **Problem overcome:** Designing a counterfactual scenario. The outcome experienced by people in NDC areas (treatment group) is compared to the experience of a control group.

Example: Type of Evaluation Strategies

Second method: Compare differences in outcome in NDC areas before and after the NDC Programme

Draw back: Non-NDC areas may have improved their outcome between the before and after NDC Programme

	Before NDC programme	After NDC programme
NDC participants	38%	33%
Control Group	31%	29%







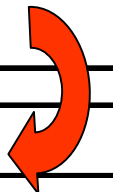
First method: Compare differences in outcome between NDCs and control group after the NDC Programme

This method neglects the fact that NDCs started from a worse condition, hence **underestimates the impact of the NDC Programme**



Alternatively: The DD method takes the difference in progress made between the NDC areas and control group.

	Before NDC programme	After NDC programme
NDC participants	38% 	33%  = 5%
Control Group	31% 	29%  = 2%



$$5\% - 2\% = 3\% \text{ Net effect of NDC Programme}$$

The DD method is literally a ***difference of differences***
It measures the net impact of the Programme

Treatment and Control Groups

People in treatment and control group need to have similar characteristics to be comparable

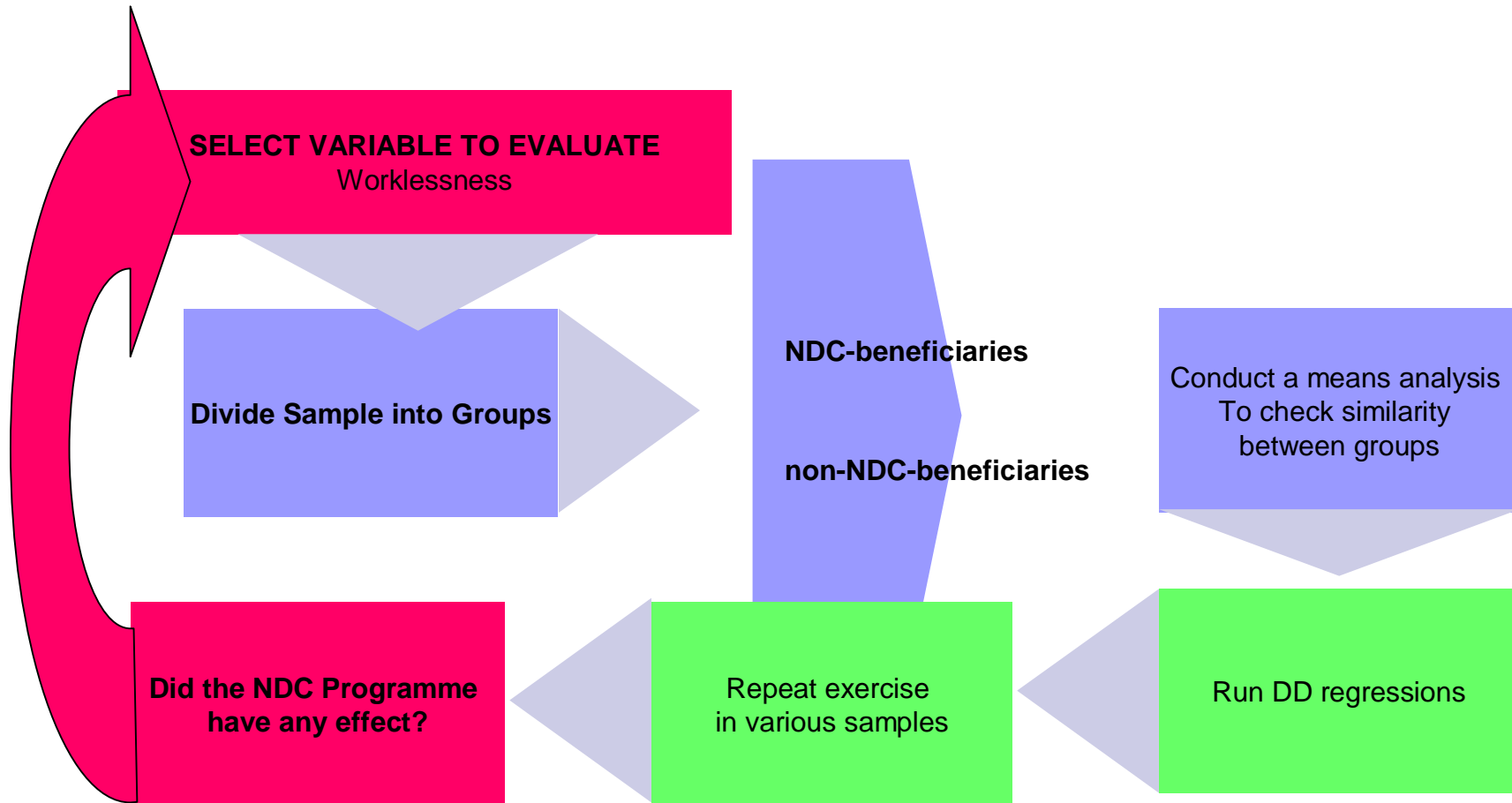


Treatment group: JSA and IB/SDA beneficiaries living in NDC areas

Control Group: JSA and IB/SDA beneficiaries living in non-NDC areas



Difference in Difference Framework





Administrative Data: GMS-ONE

- n GMS-ONE, a continuous record of all UK **actual administrative registers** (57.4 million records)
- n Information on 100% benefit claimant population, avoiding problems of non-response and attrition.
- n Database is subject to rigorous quality checks and regularly updated.
- n It tracks transitions in and out of benefits, geographical migrations and individual/household characteristics.



This paper evaluates the NDC effect on:

1. The likelihood of JSA claimants people on leaving unemployment benefits.
1. The likelihood of IB/SDA claimants on leaving sickness benefits.

Method used: Difference in Difference method
using conditional logit.

Results taken from: Covizzi, I., Gutiérrez-Romero, R. and Noble, M., “Evaluating England’s New Deal For Communities Programme using GMS-ONE”, SDRC working paper.



Building Treatment and Control groups (2001 Base)

	JSA claimants		IB/SDA claimants	
	NDC areas	Rest of England	NDC areas	Rest of England
Gender				
Male	79.2	76.0	65.7	63.4
Female	20.8	24.0	34.3	36.6
Age				
16-24	29.2	25.1	11.2	15.2
25-34	30.4	28.8	20.1	23.6
35-44	21.6	21.0	22.2	25.7
45-59	18.5	24.2	39.1	31.1
60-64	0.4	0.9	7.4	4.4
Presence of partner				
Yes	83.5	83.5	93.4	93.6
No	16.5	16.5	6.6	6.5
Number of children				
0	86.1	86.7	89.9	89.5
1	4.3	5.0	4.8	4.8
2	4.4	4.2	2.1	3.2
3	2.6	2.4	1.7	1.6
4	1.5	1.1	0.7	0.6
5+	1.0	0.7	0.7	0.3
Presence of children aged 0-4				
Yes	7.7	6.7	4.0	3.1
No	92.3	93.3	96.0	96.9
Previous worklessness spell(s)				
Yes	14.1	15.3	13.5	10.7
No	85.9	84.8	86.5	89.3
Previous worklessness spell longer than six months				
Yes	0.3	0.2	0.5	0.4
No	99.7	99.8	99.5	99.6
Total	6,029	267,260	3,687	222,722



NDC Impact 2000-2004

	JSA Claimants	IB/SDA Claimants
Effect of NDC programme	1.1	1.6
Control Variables:		
Age	2.4	3.4
Partner	0.4	2.1
Children aged 0-4	1.1	1.4
Transition out of NDC area	0.6	0.6
Transition into NDC area	0.5	1.5
Previous worklessness spell(s)	0.5	0.8
Previous worklessness spell(s) (longer than six months)	0.3	0.0
Index of Multiple Deprivation 2004	1.0	1.0
Round areas 2	0.7	1.2
Region of Residence		
<i>North-West (reference group)</i>		
London	1.3	1.0
South-East	1.2	0.8
South-West	1.2	0.8
West Midlands	1.2	1.0
East Midlands	1.4	1.1
Yorkshire and the Humber	1.1	1.1
North-East	1.1	1.0
East	1.2	1.3



Policy Insights

- n People with previous worklessness spell(s) are less likely to leave workless benefits.
- n JSA claimants in the North West region are less likely to leave JSA benefits compared to the rest of the country.
- n IB/SDA claimants in the South, West Midlands and North East are less likely to leave IB/SDA benefits compared to those in the North West.



Caveants of GMS-ONE evaluation

- n Control group can be refined further by matching people at both individual and area level.
- n GMS-ONE does not have information on employment.



Improved Approach

- n New administrative database: WPLS
- n WPLS: a continuous record of all UK actual administrative benefit and employment spells.
- n Refining matching methods: Propensity score matching



Work up to date

- n Tested methodology in NDC survey (Gutierrez-Romero, R, Working paper)
- n WPLS has been put into the right format for analysing entry into employment
- n Currently carrying out propensity score matching in super computer.



Results from survey

- n People in NDC and control areas were matched according to: age, sex, ethnicity, partner, children.
- n Difference in difference analysis performed



Preliminary results

- n NDC programme increased the likelihood of entering into work.
- n Specially for those in
 - .. full time education
 - .. Training programmes



Conclusions according to GMS-ONE

- n JSA claimants living in NDC areas are 1.1 times more likely to leave JSA benefits than those in the control group.
- n IB/SDA claimants living in NDC areas are 1.6 times more likely to exit benefits compared to those in the control group.
- n These findings support descriptive analysis as well (not presented here).
- n The NDC programme **has narrowed the gap in worklessness** between NDC areas and the rest of the country.
- n Preliminary results of NDC survey support these findings.



End of Presentation
Thank you!