

Centre for Policy Studies Conference 2015

Regional Health Profiles and their Policy Implications

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Objectives

- ▶ Profile the 2010 Health Status of 8 Irish Regions
- ▶ Benchmark scale of health gaps by **major health condition**
- ▶ Model Regional Prescribing
- ▶ Simulate effects on Prescribing Rates & Costs
- ▶ Highlight major policy issues arising - **Healthy Ireland's** goal of Reducing Health Inequalities

8 Irish HSE Regions and their Counties

- ▶ **East:** Dublin, Kildare, Wicklow
- ▶ **Midlands:** Laois, Longford, Offaly, Westmeath
- ▶ **Mid West:** Clare, Limerick, North Tipperary
- ▶ **North East:** Cavan, Louth, Meath, Monaghan
- ▶ **North West:** Donegal, Leitrim, Sligo
- ▶ **South East:** Carlow, Kilkenny, South Tipperary, Waterford, Wexford
- ▶ **South:** Cork, Kerry
- ▶ **West:** Galway, Mayo, Roscommon



Community Drug Schemes in Ireland

Eligibility

- ▶ **General Medical Services (GMS)** – means tested, allowance for expenses such as mortgage, childcare etc. Also if medical costs cause undue financial hardship.
- ▶ **Drug Payment Scheme (DP)**- An individual or family pays first €144 each month for approved prescribed drugs.
- ▶ **Long Term Illness (LTI)** – Not means tested. Includes - Cerebral Palsy, Spina Bifida, Acute Leukaemia, Multiple Sclerosis, Diabetes and Epilepsy
- ▶ *Also*
- ▶ **High Tech Drug Scheme (HTD)** – usually hospital administered e.g. Anti rejection drugs for transplants, and chemotherapy

Scheme Population Percentages 2010

	% of Pop: GMS	% of Pop: DP	% of Pop: LTI	% of Pop: HTD
Ireland	35	61	3	1
1. East	28	67	4	1
2. Midlands	38	58	3	1
3. Mid-West	38	59	2	1
4. North-East	38	58	3	1
5. North-West	49	47	3	1
6. South-East	41	55	3	1
7. South	36	61	2	1
8. West	41	56	2	1



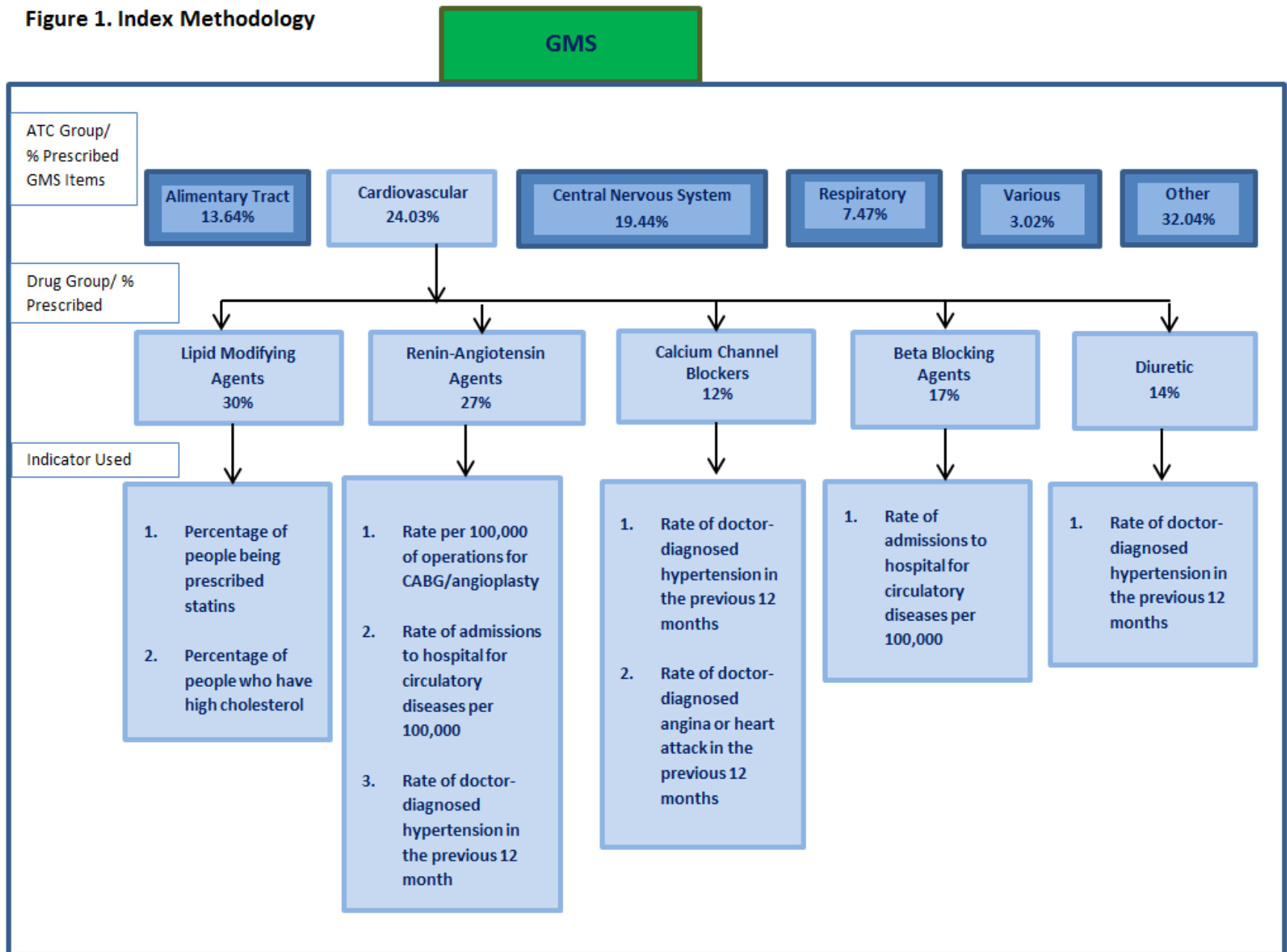
Methodology

- ▶ 3 Primary Care Reimbursement schemes – GMS, DP, LTI.
 - ▶ 5 Major Health Category + 1 category combining other conditions = Total of 6 ATC categories in each PCR scheme.
 - ▶ 24 Sub groups of drugs associated with each of these major health categories.
 - ▶ Indicators were identified that corresponded to illnesses associated with these drug groups.
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- ▶

We constructed prescription weighted Composite Health Indices for each scheme in each ATC category and region.

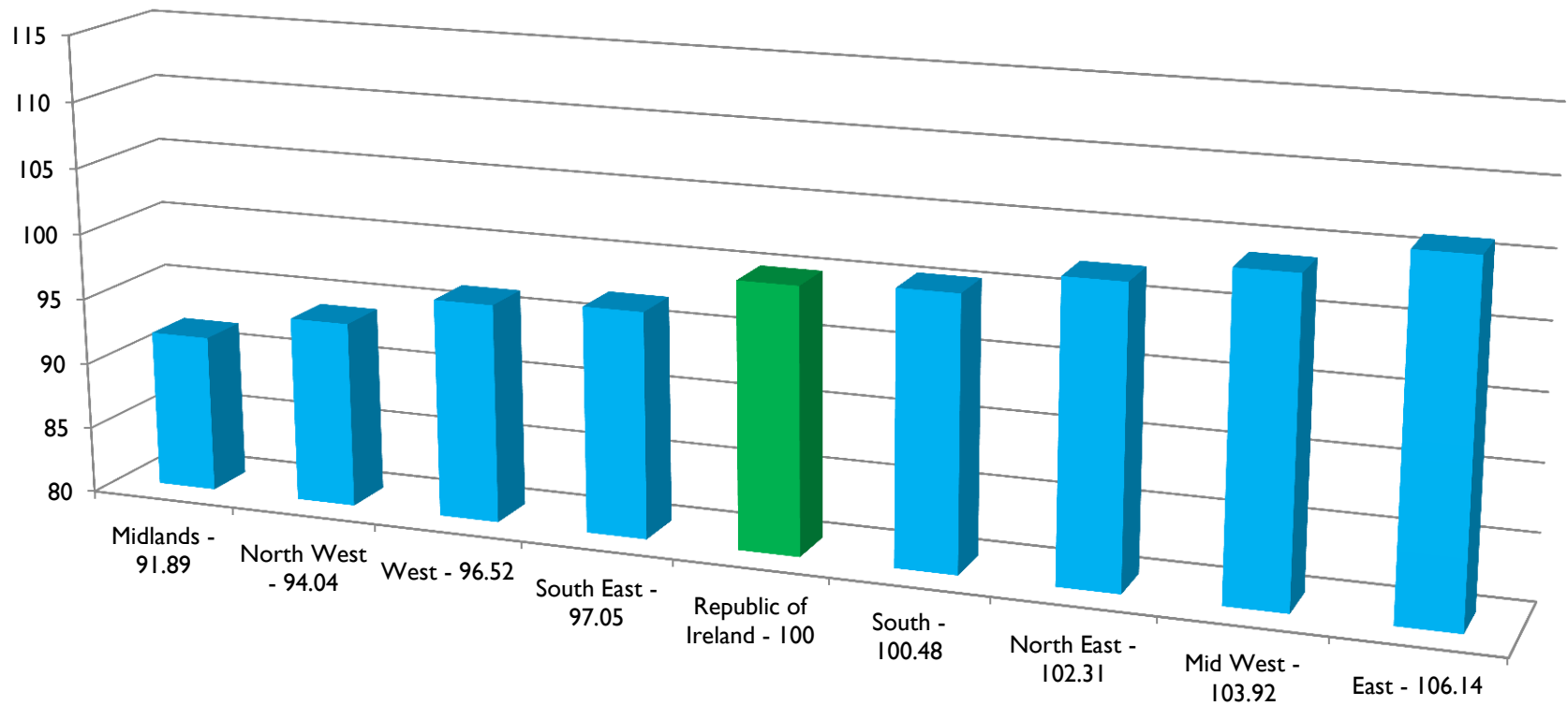
- ▶ Index value = $\frac{\text{NationalMorbidityRate}}{\text{RegionalMorbidityRate}} * 100$ for each [Ireland = 100]
- ▶ Regional Health Index = summed Regional Scheme Indices

Figure 1. Index Methodology



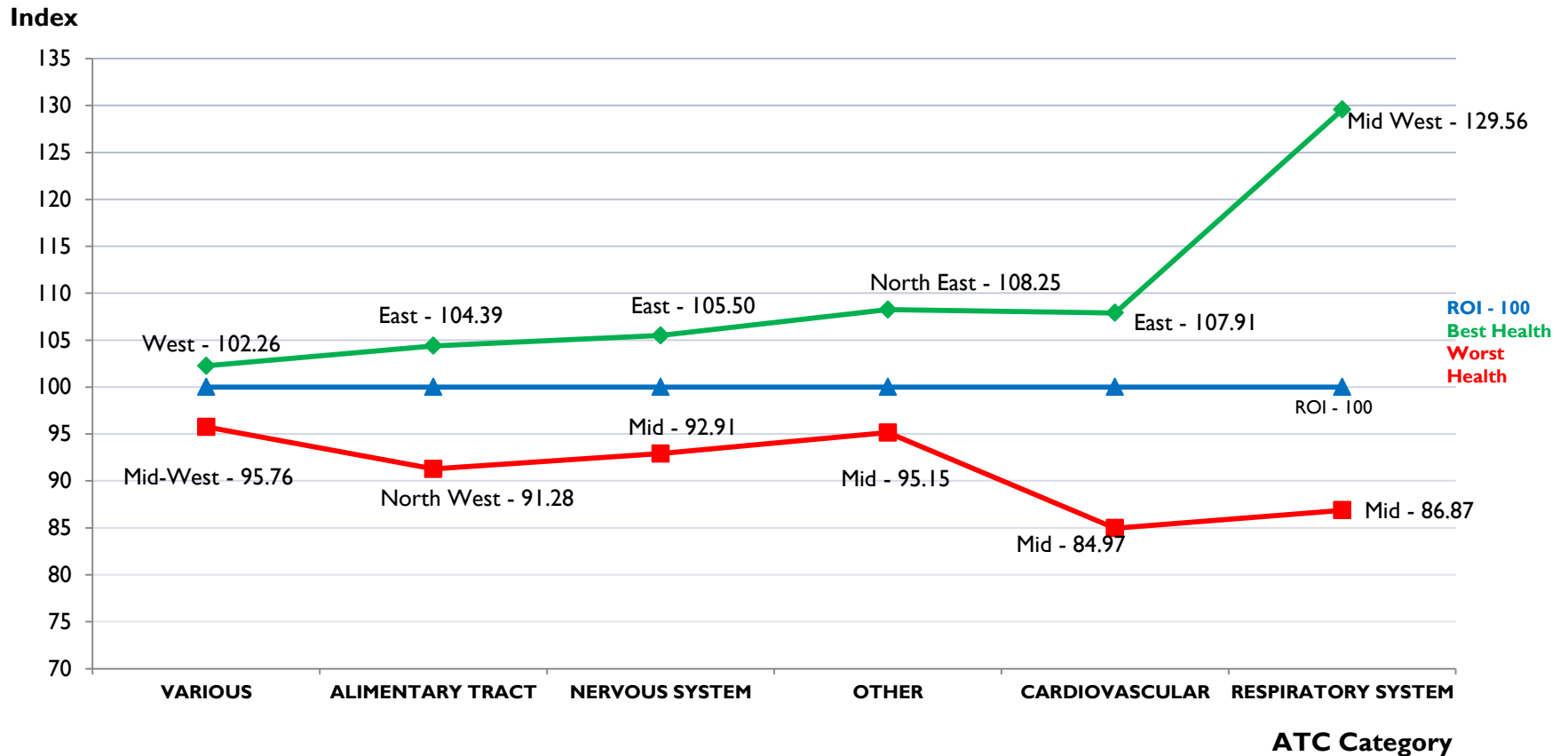
KL Composite Health Index

Index

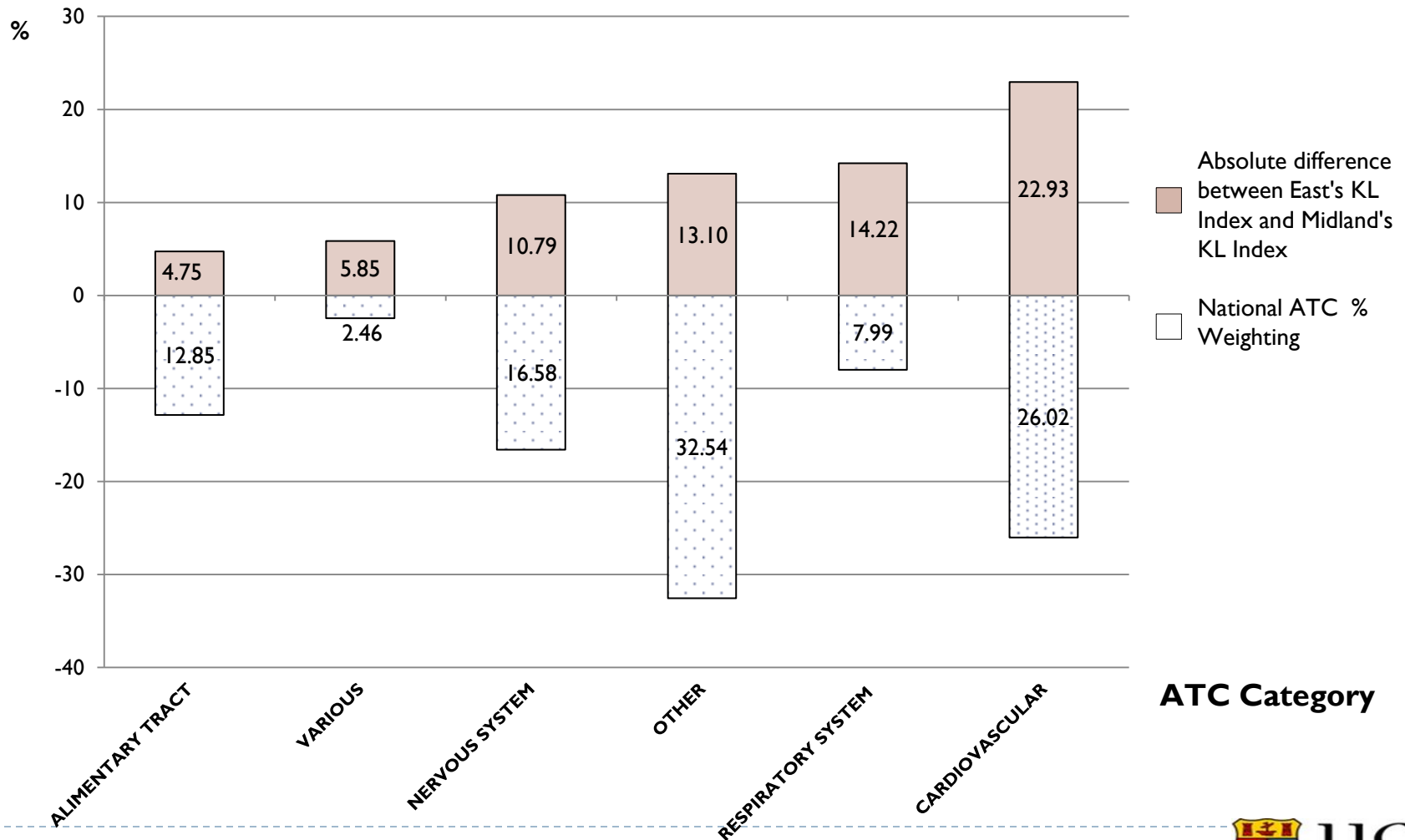


Region

Largest Health Gaps by ATC Category



ATC Health Gaps (& Weights) between East & Midlands Regions



2010 GMS Total Cost by ATC

Major Therapeutic Classification	€m	%
A Alimentary Tract and Metabolism	183.40	14.87
B Blood and Blood Forming Organs	54.45	4.41
C Cardiovascular System	276.68	22.43
D Dermatologicals	24.93	2.02
G Genito Urinary System and Sex Hormones	49.93	4.05
H Systemic Hormonal Preps. excl. Sex Hormones and Insulins	14.46	1.17
J Anti-infectives for Systemic Use	36.33	2.95
L Antineoplastic and Immunomodulating Agents	11.06	0.90
M Musculo-Skeletal System	68.10	5.52
N Nervous System	272.50	22.10
P Antiparasitic Products, Insecticides and Repellents	0.98	0.08
R Respiratory System	115.01	9.33
S Sensory Organs	22.79	1.85
V Clinical Nutritional Products	46.40	3.76
Diagnostic Products	23.47	1.90
Ostomy Appliances	13.96	1.13
Urinary Appliances	7.59	0.62
Needles/Syringes/Lancets	5.74	0.46
Other Therapeutic Products	2.55	0.21
Dressings	1.68	0.14
Allergens	0.02	0.00
Miscellaneous	1.24	0.10
Total	€1,233.27m	100%

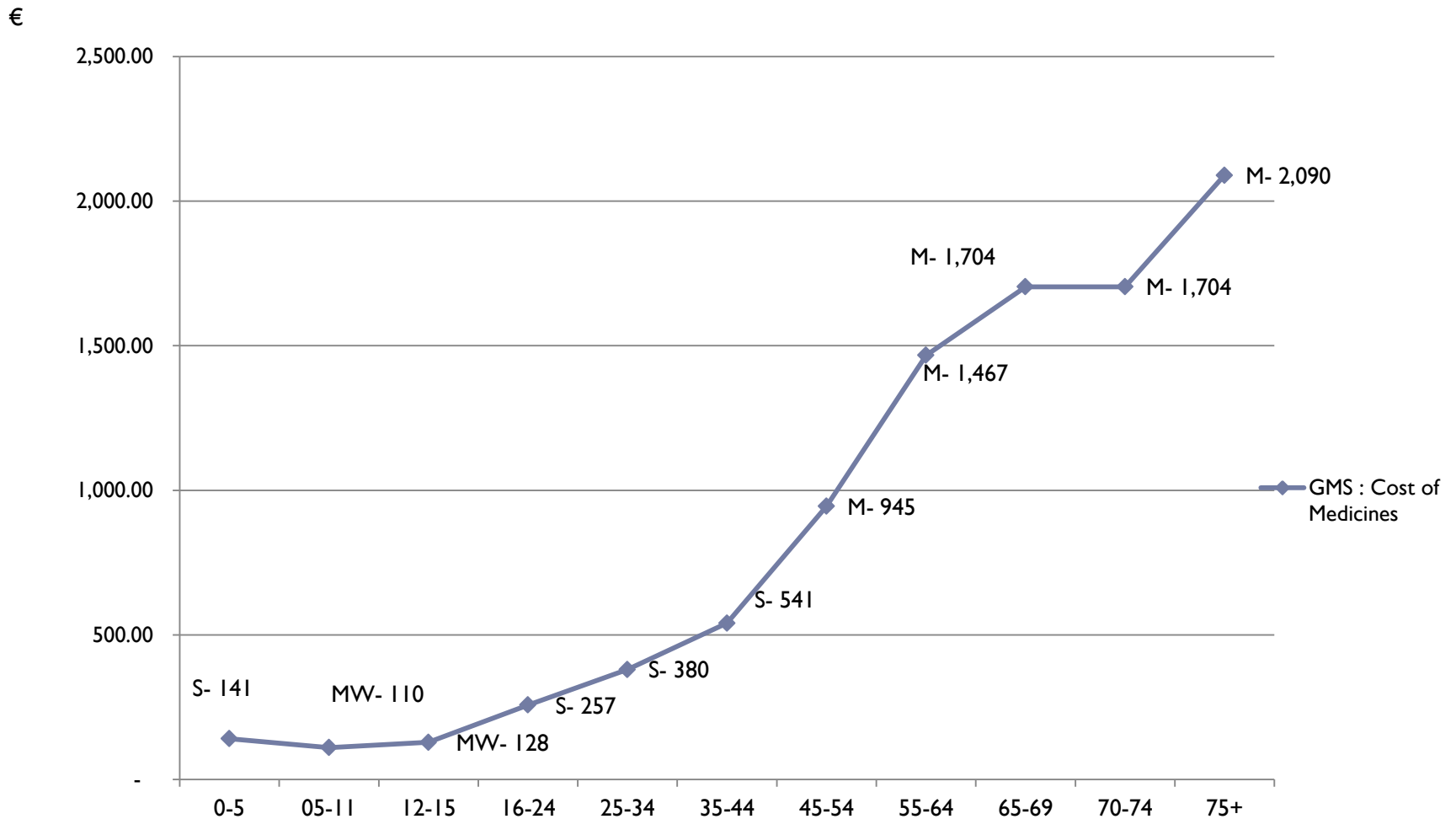
▶ As per PCRS (2010)

Regional Costs

2010: Average GMS Cost Per Person



2010: Maximum Average GMS Cost per age cohort



Focus on Cardiac Health

- ▶ Cardiovascular disease is the dominant cause of death in Ireland (Kabir et al. 2013)
- ▶ In 2010 Cardiovascular items absorbed 24% & 23%, respectively, of GMS prescribing frequency & cost
- ▶ KL Health Index indicates the Midlands had the lowest index score (84.97) for Cardiovascular Health
- ▶ High cholesterol rates and high circulatory disease rates contributed to this

Closing the Midlands Cardiac Health Gap

Prescribing Cost Implications

- ▶ If the 15% Midlands-National Cardiovascular health gap was closed -
- ▶ It would reduce cardiac prescribing frequency in the Midlands
- ▶ If the Midlands rates fell to match the national cardiac prescribing rates
- ▶ The Midlands GMS, DP & LTI cardiac prescribing rates would each fall by about 13% - see below table

Cardiac Items Prescribed Per Person Covered in the Midlands		
Scheme	2010 Midlands Cardiac Prescribing Rate*	2010 National Cardiac Prescribing Rate
GMS	9.31	8.09
DP	1.23	1.07
LTI	7.39	6.42

- ▶ Estimated

Change in Cardiac Prescribed Items in Midlands

	Before Gain in Cardiac Health	After Gain in Cardiac Health	Reduction in Prescribed Items
GMS Items	978,177	850,089	128,088
DP Items	198,803	172,847	25,956
LTI Items	59,526	51,720	7,807
Total Number of Items Prescribed	1,236,506	1,074,656	161,850

Prescription Cost Savings from Improving Cardiac Health in the Midlands in 2010

Prescription Costs	with Midlands Cardiac Health Status	If Midlands had National Cardiac Health Status	Cost Savings
GMS Cost	€15,896,812	€13,815,196	€2,081,616
DP Cost	€4,089,344	€3,555,443	€533,901
LTI Cost	€1,243,638	€1,080,538	€163,099
Total Cost	€21,229,795	€18,451,178	€2,778,617

- Cardiac Ingredient Costs per item: **GMS - €16.25, DP - €20.57; LTI – €20.89**
- They imply annual savings of €2.8m with a capitalised value of around €70m (when discounted at 4%)

Benefits and Costs of Improved Health

Benefits:

1. (Prescription cost savings)
2. Primary and Secondary Care costs
3. The Value of added life years
4. The Value of Reduced/Deferred Pain and Suffering Costs

Costs

1. Prevention costs (of, say, smoking cessation) are usually “lowest hanging fruit”
2. Treatments costs (e.g. statins or surgical interventions) are usually more costly



Cardiac Policy Implications

- ▶ Kabir et al., document a reduction of 70% in CHD in Ireland between 1985 and 2006
- ▶ Isolate the contributions of specific **prevention measures** and **treatments** to this reduction
- ▶ We believe the resulting health benefits greatly outweigh the costs and should inform and compel policy formation **but**
- ▶ Many of the benefits and costs remain undocumented which frustrates needed policy innovations

Conclusions and Recommendations

- ▶ Index identifies health inequalities by region & health condition
- ▶ Benchmarks scale of health gaps by **major health condition**
- ▶ Can identify health advances/declines by region/condition – if constructed for a later year (and identify promising case studies)
- ▶ Provides a basis for exploring the macro-causes of health conditions
- ▶ Can combined with calibrated health models to identify the value of health benefits & prevention/treatment costs
- ▶ Provide a rational basis for health planning

References

- ▶ Healthy Ireland; A Framework for Improved Health and Wellbeing 2013-2025.
- ▶ HSE Primary Care Reimbursement Service: Statistical Analysis of Claims and Payments 2010.
- ▶ 'Modelling Coronary Heart Disease mortality declines in the Republic of Ireland, 1985-2006'
Kabir Z, Perry IJ, Critchley J, O'Flaherty M, Capewell S, Bennett K. (2013) 'Modelling Coronary Heart Disease mortality declines in the Republic of Ireland, 1985-2006'. *International Journal of Cardiology*