




THE ECONOMIC IMPACT OF COLORECTAL CANCER: WHAT ARE THE COSTS AND WHERE DO THEY FALL?

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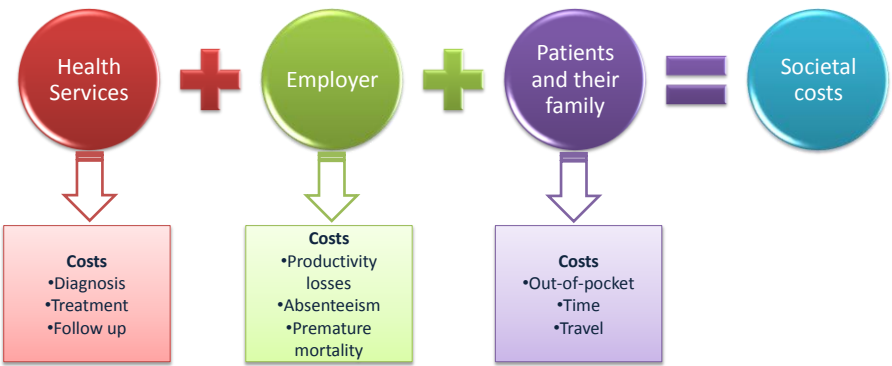
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NCIN: Cancer Outcomes Conference 2012, 14-15 June, 2012, Hilton Birmingham
Metropole, Birmingham.

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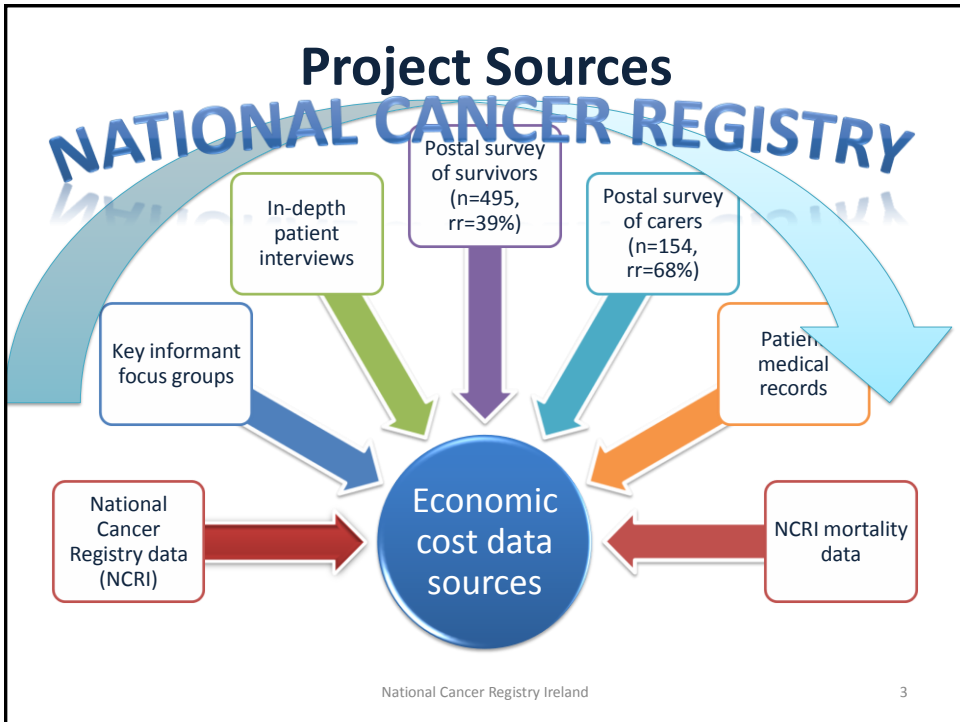
Where do the costs of cancer fall?

A wide spectrum of costs across society

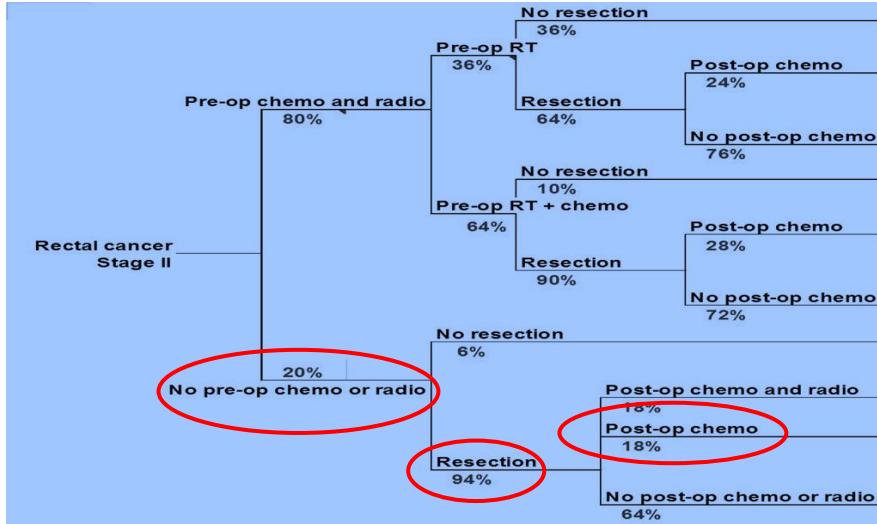


<p>Health Services</p> <p>↓</p> <div style="border: 1px solid #ccc; background-color: #f9d5e5; padding: 5px; width: fit-content; margin: 0 auto;"> <p>Costs</p> <ul style="list-style-type: none"> •Diagnosis •Treatment •Follow up </div>	<p>Employer</p> <p>↓</p> <div style="border: 1px solid #ccc; background-color: #d9ead3; padding: 5px; width: fit-content; margin: 0 auto;"> <p>Costs</p> <ul style="list-style-type: none"> •Productivity losses •Absenteeism •Premature mortality </div>	<p>Patients and their family</p> <p>↓</p> <div style="border: 1px solid #ccc; background-color: #d9d2e9; padding: 5px; width: fit-content; margin: 0 auto;"> <p>Costs</p> <ul style="list-style-type: none"> •Out-of-pocket •Time •Travel </div>
<p>= Societal costs</p>		

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Costs of managing colorectal cancer



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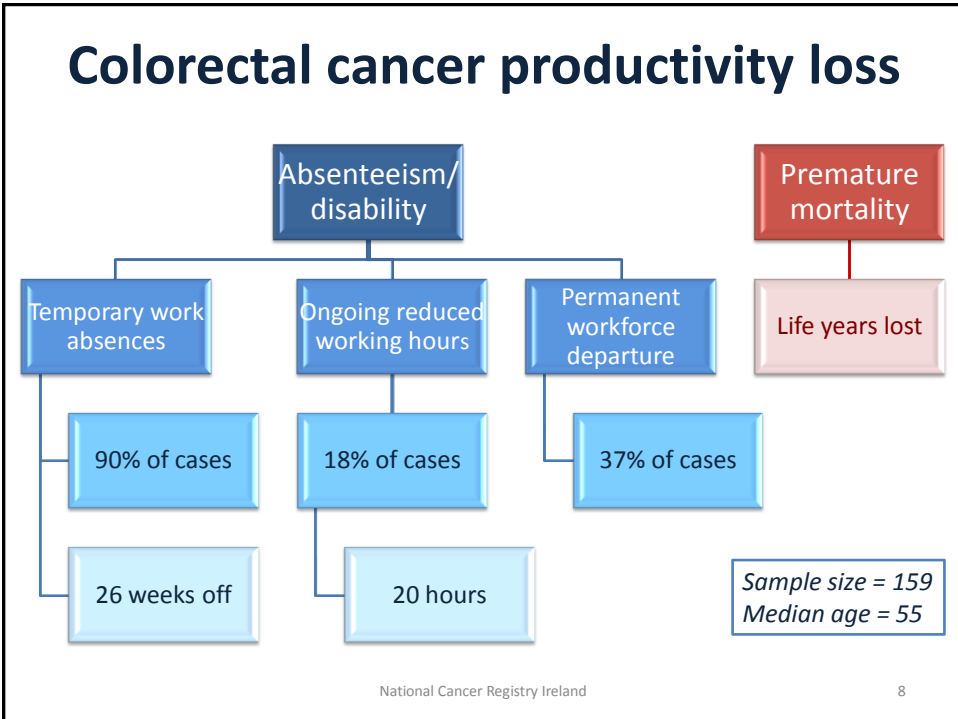
5

Health Service Costs: Costs of managing colorectal cancer (€2008)

Site	Stage I	Stage II	Stage III	Stage IV	Overall cost
Colon cancer	23,462 (22,818-24,459)	35,059 (25,904-51,227)	48,186 (36,469-67,970)	31,744 (26,966-39,872)	37,417 (29,871-50,618)
Rectal cancer	24,089 (16,284-38,492)	40,950 (32,754-55,430)	49,987 (41,233-66,492)	45,237 (40,292-53,196)	43,502 (36,872- 55,402)
Colorectal cancer	23,688 (20,900-28,590)	37,180 (30,285-48,032)	48,835 (40,548-62,582)	36,602 (32,774-42,962)	39,607 (33,843-48,980)
Treatment phase					Overall cost
Diagnosis	1,634	1,634	1,634	1,634	1,634
Treatment	18,550	32,900	45,407	33,656	35,918
Follow up	3,503	2,646	1,794	1,311	2,055

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6



Colorectal cancer per person productivity costs (€2008)

Valuation method: Human Capital Approach

Type	Temporary Disability cost	Reduced hours costs	Permanent departure costs	Mortality costs	Total costs
Colorectal cancer (CRC)	14,255 (10,379-18,132)	24,353 (13,436-35,271)	77,414 (54,758-100,042)	89,824 (71,151-108,497)	205,847
CRC male	16,917	28,054	82,229	96,124	223,324
CRC female	10,085	18,408	69,678	79,618	177,789
Colorectal cancer to 70	13,552	35,299	122,090	133,051	303,992

Key cost drivers:

Age

Wages & gender

Pension age

Length of illness

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9

Patient initial treatment-related time and travel costs

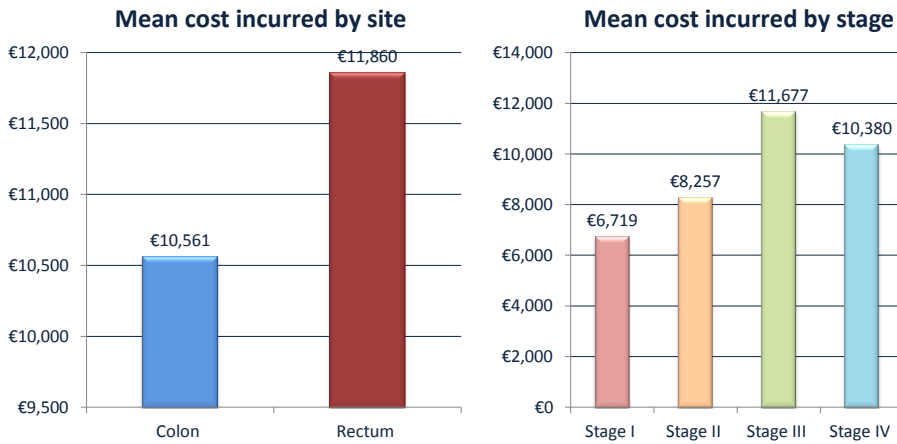


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10

Colorectal cancer time and travel costs

Mean time & travel costs: €11,050



Important findings: Vast majority of costs are time costs (96%)

Significant variables – Stage and site

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11

Patient initial treatment-related out-of-pocket costs



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Types of out-of-pocket costs

Treatment-related OOP costs

- GP visits
- Parking
- Inpatient hospital stay
- Meals

Additional health-related and medical costs

- Tests (x-rays, scans)
- Consultant visits
- Other medical therapies (e.g. counselling)
- Alternative therapies (e.g. reflexology)
- Convalescent or respite care
- Prescription medicines
- Over-the-counter medicines
- Dietary supplements
- Childcare
- Home-help
- Nursing care
- Clothing
- House modifications
- Stoma bags and pouches

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Colorectal cancer: Out-of-pocket costs

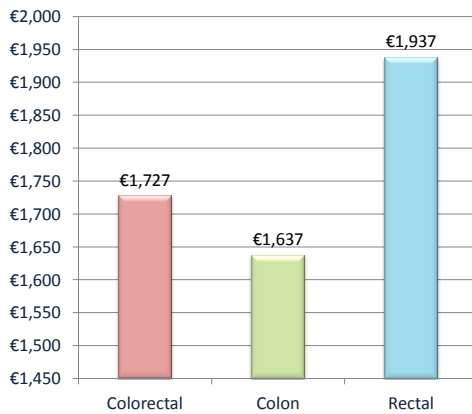
Key out-of-pocket cost findings

90% of respondents reported some cancer-related out-of-pocket costs

10% reported out-of-pocket costs in excess of €3,200

Average surgery-related costs: €325
 Average chemotherapy-related costs: €325
 Average radiotherapy-related costs: €79

Per person out-of-pocket costs by site



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14

Informal care costs



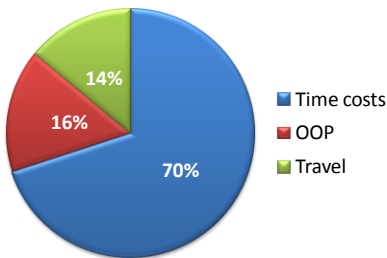
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15

Colorectal cancer: Informal care costs

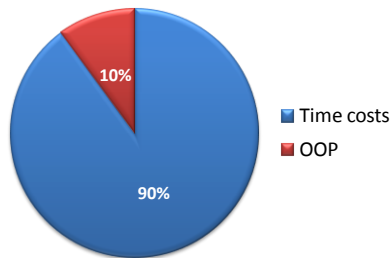
Hospital-based diagnosis and treatment costs

Mean costs: €5,085



Domestic-based diagnosis and treatment costs

Mean costs: €8,795



First year informal care costs

€29,207

Of which time costs account for 87%

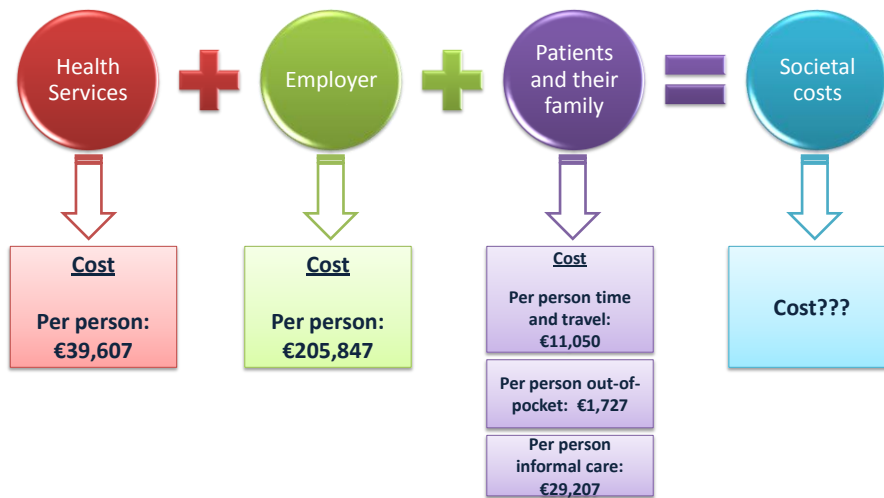
Significant variables

Stage
Site
Work status

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Summary



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Conclusion

- Cancer imposes a considerable economic burden across society.
- Costs differ depending on the chosen perspective – health service, employers, patients and their family, society etc.
- By providing a sampling frame, cancer registries can facilitate the conduct of population-based studies of the economic impact of cancer from different perspectives.

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18

Acknowledgments

Collaborators

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