Social inequalities and Early Diagnosis of Cancer

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National Institute of Oncology, Budapest, Hungary
European Guide on Quality Improvement in Comprehensive Cancer Control

Policy Paper on Tackling Social Inequalities in Cancer Prevention and Control for the European Population

Tit Albreht, Régine Kiasuwa and Marc Van den Bulcke

1. Strategies for early detection of cancer

2. Effective solutions for population-based screening programmes

3. Cancer prevention & health promotion: implementation of the European Code Against Cancer

Inequality a **cross-cutting** theme integrated in above mentioned tasks
Deadline for submission is 10th August 2019

SOCIAL INEQUALITIES IN HEALTH

Systematic and socially produced

Unfair and avoidable

Social inequalities in cancer refer to health inequalities spanning the full cancer continuum across the life course (Krieger, 2005).
SOCIAL DETERMINANTS OF HEALTH MODEL (WHO, 2010)

Cancer incidence higher is in Northern and Western European countries.

Cancer mortality higher is in Eastern and Southern ones.

Figure 3: Excess hazard of death for the most deprived and most affluent groups, by cancer prognosis, England 1996–2006.

Socioeconomic inequalities in cancer survival in England after the NHS cancer plan.
SURVIVAL AND STAGE OF DIAGNOSIS

TEN-YEAR SURVIVAL FOR EIGHT TYPES OF CANCER COMBINED

DIAGNOSED EARLY
(STAGE I + STAGE II)

81%

Survival is more than three times higher when cancer is diagnosed early.

DIAGNOSED LATE
(STAGE III + STAGE IV)

26%

EQUITY IN EARLY DIAGNOSIS
Socio-economic inequalities in breast and cervical cancer screening practices in Europe: influence of the type of screening program.


Figure 1 Multilevel association between screening prevalence and type of screening program (prevalence ratio) and between educational level and cancer screening (RII) by type of screening program taking individual variables into account. PCV after taking into account the type of screening program.
Guide to cancer early diagnosis.
World Health Organization (WHO); 2017. ISBN 978-92-4-151194-0
COMMON BARRIERS TO EARLY DIAGNOSIS

Step 1
Awareness and accessing care
- Awareness of symptoms, seeking and accessing care

Barriers:
- Poor health literacy
- Cancer stigma
- Limited access to primary care

Step 2
Clinical evaluation, diagnosis and staging
- Accurate clinical diagnosis
- Diagnostic testing and staging
- Referral for treatment

Barriers:
- Inaccurate clinical assessment and delays in clinical diagnosis
- Inaccessible diagnostic testing, pathology and staging
- Poor coordination of services and loss to follow-up

Step 3
Access to treatment
- Accessible, high-quality treatment

Barriers:
- Financial, geographic and logistical barriers
- Sociocultural barriers

Guide to cancer early diagnosis.
World Health Organization (WHO); 2017. ISBN 978-92-4-151194-0
Table 3: Barriers to seeking medical help by ethnic group

<table>
<thead>
<tr>
<th>Emotional barriers</th>
<th>All (n = 1515) (%)</th>
<th>White (n = 806) (%) OR (reference group)</th>
<th>South Asian (n = 333) (%) OR (95% CI)</th>
<th>Black (n = 265) (%) OR (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Worried about what the doctor might find</td>
<td>665/1462 (47.1)</td>
<td>313/784 (44.3) 1.00</td>
<td>188/313 (58.2) 2.04 (1.46 to 2.87)</td>
<td>120/257 (45.5) 1.22 (0.87 to 1.72)</td>
</tr>
<tr>
<td>Too embarrassed to go and see the doctor</td>
<td>543/1449 (37.7)</td>
<td>222/784 (32.8) 1.00</td>
<td>189/305 (61.2) 1.69 (1.04 to 2.77)</td>
<td>89/254 (29.9) 1.07 (0.74 to 1.54)</td>
</tr>
<tr>
<td>Lacks confidence talking about symptoms</td>
<td>432/1450 (29.0)</td>
<td>138/777 (18.6) 1.00</td>
<td>190/317 (60.9) 1.24 (0.80 to 1.95)</td>
<td>69/253 (23.9) 1.40 (0.94 to 2.08)</td>
</tr>
<tr>
<td>Too scared to go and see the doctor</td>
<td>406/1456 (26.9)</td>
<td>205/780 (26.9) 1.00</td>
<td>140/310 (45.9) 1.22 (0.84 to 1.77)</td>
<td>57/259 (22.0) 0.75 (0.50 to 1.13)</td>
</tr>
</tbody>
</table>

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<tr>
<th>Practical barriers</th>
<th>All (n = 1515) (%)</th>
<th>White (n = 806) (%) OR (reference group)</th>
<th>South Asian (n = 333) (%) OR (95% CI)</th>
<th>Black (n = 265) (%) OR (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Too many other things to worry about</td>
<td>470/1468 (33.3)</td>
<td>257/788 (36.5) 1.00</td>
<td>101/315 (29.6) 1.05 (0.75 to 1.42)</td>
<td>80/255 (31.5) 0.87 (0.61 to 1.24)</td>
</tr>
<tr>
<td>Too busy to make time to go to the doctor</td>
<td>512/1482 (33.0)</td>
<td>275/794 (34.8) 1.00</td>
<td>109/316 (27.9) 0.96 (0.65 to 1.42)</td>
<td>88/261 (34.0) 0.98 (0.69 to 1.59)</td>
</tr>
<tr>
<td>Finds it difficult to arrange transport</td>
<td>211/1461 (14.7)</td>
<td>97/789 (12.5) 1.00</td>
<td>60/311 (19.1) 1.40 (0.86 to 2.28)</td>
<td>41/253 (16.1) 1.32 (0.80 to 2.15)</td>
</tr>
</tbody>
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<tr>
<th>Service barriers</th>
<th>All (n = 1515) (%)</th>
<th>White (n = 806) (%) OR (reference group)</th>
<th>South Asian (n = 333) (%) OR (95% CI)</th>
<th>Black (n = 265) (%) OR (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finds the doctor difficult to talk to</td>
<td>347/1455 (22.2)</td>
<td>180/780 (23.1) 1.00</td>
<td>84/315 (21.1) 0.97 (0.65 to 1.43)</td>
<td>61/253 (22.7) 1.05 (0.72 to 1.53)</td>
</tr>
<tr>
<td>Worried about wasting the doctor’s time</td>
<td>519/1466 (36.5)</td>
<td>368/786 (47.2) 1.00</td>
<td>68/313 (16.7) 1.00 (0.65 to 1.43)</td>
<td>60/257 (20.9) 1.08 (0.72 to 1.53)</td>
</tr>
<tr>
<td>Finds it difficult to make an appointment</td>
<td>523/1457 (35.3)</td>
<td>276/782 (36.0) 1.00</td>
<td>133/316 (41.0) 0.97 (0.65 to 1.43)</td>
<td>92/254 (29.6) 1.21 (0.87 to 1.70)</td>
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</table>

Abbreviations: OR = odds ratio; CI = confidence interval. All percentages are weighted for the inverse of the probability of being selected. *All participants were of other ethnic groups or unknown ethnic group. *Odds ratio adjusted for age group and quintile of index of multiple deprivation.

Breast cancer awareness and barriers to symptomatic presentation among women from different ethnic groups in East London.
Socioeconomic disparities in head and neck cancer patients' access to cancer treatment centers.
WHAT CAN WE DO TO REDUCE INEQUALITIES?

Whole population + Socially vulnerable people = Proportionate efforts to the level of disadvantage

Fair Society, Healthy Lives: The Marmot Review.
Population

Skinmama was a successful skin cancer prevention campaign active between 7 June and 31 October 2016. The prize draws ended but the QUIZ, GAME and INFORMATION on skin cancer are still here for you to make sure you stay healthy! Check it out and have FUN!
Population
Feasibility and acceptability of a cancer symptom awareness intervention for adults living in socioeconomically deprived communities.


<table>
<thead>
<tr>
<th>Intervention components</th>
<th>Description of component</th>
<th>Purpose of component</th>
<th>Summary of intervention functions</th>
<th>Behaviour change techniques</th>
<th>Example of application within the intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Touchscreen questionnaire: &quot;About you&quot; (7 questions)</td>
<td>Background information about the participant including personal and family history of cancer, body mass index and cancer screening attendance.</td>
<td>Contextual information about potential risk factors for cancer.</td>
<td>Education, persuasion, environmental restructuring</td>
<td>Information about health consequences, prompts/cues</td>
<td>Information about the benefits of early diagnosis. Information about factors that may increase the risk of developing cancer (e.g., being overweight). Questions about previous engagement with cancer screening.</td>
</tr>
<tr>
<td>Touchscreen questionnaire: &quot;Your lifestyle&quot; (5 questions)</td>
<td>Diet, smoking, alcohol consumption and physical activity.</td>
<td>Contextual information about potential risk factors for cancer.</td>
<td>Education, persuasion, enablement</td>
<td>Information about health consequences, credible source, social support</td>
<td>Signposting to local services, such as Stop Smoking Wales. Encouragement to pass the information on to friends or family.</td>
</tr>
<tr>
<td>Touchscreen questionnaire: &quot;Your health&quot; (14 questions)</td>
<td>Cancer warning signs and symptoms (see Additional file 2)</td>
<td>Contextual information about potential symptoms of cancer.</td>
<td>Education, persuasion, environmental restructuring</td>
<td>Information about health consequences, prompts/cues, credible source</td>
<td>Signposting to General Practitioner. Information about cancer warning signs and symptoms to encourage early presentation within three weeks of noticing a potential symptom (now and in the future).</td>
</tr>
<tr>
<td>Personalised results</td>
<td>Displays a printable summary of the individual’s results and action (for example, to present to their General Practitioner with potential cancer symptoms).</td>
<td>Provides participants with an overview of their health check results, to act as a prompt for change (e.g., discussion at their GP appointment).</td>
<td>Education, enablement</td>
<td>Information about health consequences, action planning, goal setting</td>
<td>Participants complete the following statement: &quot;If I notice a symptom, I will go and see my ______ within ________ of noticing the symptom&quot;. Remind participants about the benefits of early diagnosis.</td>
</tr>
</tbody>
</table>
CONCLUSIONS

• Social inequalities in early diagnosis of cancer exist between countries and within countries by social groups.

• It’s important to identify not only the barriers to early diagnosis of cancer, but also the impact of such barriers on inequalities.

• It is recommended to include an equity perspective in the early diagnosis strategies, based on a proportional universalism approach in order to reduce social inequalities in cancer.
Thank you very much for your attention

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