Colorectal Cancer in Maryland
including
Progress in Screening &
Capacity to Screen

Diane M. Dwyer, M.D.
Maryland Dept. of Health and Mental Hygiene
Center for Cancer Surveillance and Control
June 10, 2005
U Maryland Baltimore Preventive Med and Epi.

Dept. of Health and Mental Hygiene Program

Minority Outreach, Technical Assistance

Community based orgs.
Faith based organizations
Volunteers

24 Community Health Coalitions

25 Local PH Programs

Providers: Doctors Labs, Hospitals, Pharmacies

2 Statewide Academic Health Centers: Research, PH, Statewide Health Network

Maryland Citizens, esp. Minority & Underserved

CRF Cancer Control “Network”
Acknowledgements

- DHMH Center for Cancer Surveillance and Control (CCSC)
  - Marsha Bienia, Director
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  Eugene Small, Lorraine Underwood, Alyse Weinstein
  and, Ed Bunker, Informatics Fellow, Johns Hopkins
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  Kitty Musk, William Wiseman
- DHMH FHA, Information Technology: Bob Ellis--Randy Stokes, Matt Wetherall
- DHMH Vital Statistics Administration: Isabelle Horon
- Staff and partners of 25 Local PH Programs in MD (23 with CRC screening)
- Maryland Health Care Commission Data
  Rebecca Goldblatt, Linda Bartnyska, Ben Steffen
- Medicaid Data, UM Baltimore County, CHPDM--Julie Gielnemer, Babi Lamba
- DHMH FHA, Center for Preventive Health Services--Helio Lopez
- Minority Outreach Technical Assistance Partners
Acknowledgements

- Colorectal Cancer Medical Advisory Committee Members:
  
  Stanley Watkins, MD—Chairman
  Ashish Chawla, MD
  Marshall S. Bedine, MD
  Anthony J. Calabrese, MD, FACG
  Michael Choti, MD
  Cinthia Drachenberg, MD
  Francis Giardiello, MD
  Bruce Greenwald, MD
  Harry Yfantis, MD

- Maryland Health Care Providers, Endoscopists, and Insurers
Colorectal Cancer in Maryland
Number of Cancer Deaths in Maryland, 2001

<table>
<thead>
<tr>
<th>Cancer Site</th>
<th>Number of Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lung &amp; Bronchus</td>
<td>2,858</td>
</tr>
<tr>
<td>Colon &amp; Rectum</td>
<td>1,079</td>
</tr>
<tr>
<td>Female Breast</td>
<td>801</td>
</tr>
<tr>
<td>Prostate</td>
<td>552</td>
</tr>
<tr>
<td>Oral</td>
<td>141</td>
</tr>
<tr>
<td>Melanoma</td>
<td>137</td>
</tr>
<tr>
<td>Cervix</td>
<td>82</td>
</tr>
</tbody>
</table>

Source: Maryland Division of Health Statistics, 2002
Colorectal Cancer Cases and Deaths by Year of Diagnosis or Death, Maryland, 1997-2001

Source: Maryland Cancer Registry, 1997-2001
Maryland Division of Health Statistics, 1997-2001
Colorectal Cancer Age-Adjusted Incidence and Mortality Rates by Year of Diagnosis and Death, Maryland, 1997-2001

Source: Maryland Cancer Registry, 1997-2001
Maryland Division of Health Statistics, 1997-2001
Colorectal Cancer Age-Specific Incidence Rates by Race, Maryland and the United States, 1995-1999

Age-specific rate per 100,000 population

35-39 40-44 45-49 50-54 55-59 60-64 65-69 70-74 75-79 80-84 85+

Source: Maryland Cancer Registry, 1995-1999; SEER, National Cancer Institute, 1995-1999
Number of Colorectal Cancer Deaths by Gender, Age, and Race/Ethnicity, Maryland 2002

Legend
Unspecified
White
Black
Other

Event Count Pyramid
1,018 Events

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>85+</td>
<td>26</td>
<td>104</td>
</tr>
<tr>
<td>80-84</td>
<td>15</td>
<td>65</td>
</tr>
<tr>
<td>75-79</td>
<td>17</td>
<td>14</td>
</tr>
<tr>
<td>70-74</td>
<td>14</td>
<td>45</td>
</tr>
<tr>
<td>65-59</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>60-64</td>
<td>10</td>
<td>26</td>
</tr>
<tr>
<td>55-59</td>
<td>20</td>
<td>17</td>
</tr>
<tr>
<td>50-54</td>
<td>4</td>
<td>14</td>
</tr>
<tr>
<td>45-49</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>40-44</td>
<td>5</td>
<td>3</td>
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<tr>
<td>35-39</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>30-34</td>
<td>2</td>
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<tr>
<td>25-29</td>
<td>1</td>
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<td>20-24</td>
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</tr>
<tr>
<td>15-19</td>
<td>1</td>
<td>1</td>
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<tr>
<td>10-14</td>
<td>5</td>
<td>9</td>
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<tr>
<td>5-9</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>0-4</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

PPT Tools—Ed Bunker ebunker@jhmi.edu using Vital Statistics Data
Colorectal Cancer Deaths by Gender, Age, and Race/Ethnicity--Maryland 2002--Events by Size of Population

Legend
Unspecified
White
Black
Other

Each dot represents one death

Male

Female

PPT Tools--Ed Bunker, ebunker@jhmi.edu, using Vital Statistics Data
Colorectal Cancer Mortality Rates by Race and Sex in Maryland, 1995-1999

Age-adjusted rate per 100,000 population

Black men
White men
Black women
White women

Source: Maryland Cancer Registry, 1995-1999
Colorectal Cancer by Stage at Diagnosis
Maryland, 1996-2001

Source: Maryland Cancer Registry, 1996-2001
Colorectal Cancer
Education and Outreach

Cigarette Restitution Fund Programs
Maryland, 2000-2005
Colorectal Cancer CRC CRF Programs in Maryland FY 2005

Legend

- Light Green: Educate and Screen for CRC
- Yellow: Educate Only *
- White: No CRC Program

* Screened for CRC in FY 2001-2003
Colorectal Cancer
Number Educated in Brief, Group, or Individual Sessions by Type of Audience
Maryland, July 2000 - March 31, 2005

N = 211,447

- 9,306 (4%)
- 1,045 (1%)
- 201,096 (95%)

Source: Education Database, Form 1, as of 5/24/05
Colorectal Cancer
Number Targeted via Media, Newspapers, Pamphlets, Billboards, etc.
Maryland, July 2000 - March 31, 2005

Media, Newspapers, Pamphlets, Billboards, etc.
Colorectal cancer messages targeted to reach

>71 million people

Source: Education Database, Form 2, as of 5/24/05
Colorectal Cancer: Population-based Data on Knowledge and Screening
Among those 40+ years, knowledge is high:

- 86% had seen or heard about CRC screening in media

Source: Maryland Cancer Survey, 2004
Among those 40+ years, knowledge is high:

- 76% had heard of home FOBT kit for CRC screening

Source: Maryland Cancer Survey, 2004
Among those 40+ years, knowledge is high:

- 91% had heard of endoscopy for CRC screening

Source: Maryland Cancer Survey, 2004
Maryland Fecal Occult Blood Test in Past 2 Years
50 Years and Older, by Year of Survey
Compared to Healthy People 2010 Objective

Sources: BRFSS, Maryland DHMH Office of Surveillance and Assessment, 1997, 1999, 2001
Maryland Cancer Survey, DHMH Center for Cancer Surveillance and Control, 2002, 2004
Maryland--Ever Had Sigmoidoscopy and Colonoscopy
50 Years and Older by Year of Survey
Compared to Healthy People 2010 Objective

<table>
<thead>
<tr>
<th>Year</th>
<th>Percent Ever Had Sig. or Colonoscopy</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>50.4%</td>
</tr>
<tr>
<td>2001</td>
<td>52.2%</td>
</tr>
<tr>
<td>2002</td>
<td>58.2%</td>
</tr>
<tr>
<td>2004</td>
<td>63%</td>
</tr>
<tr>
<td>HP 2010</td>
<td>50.0%</td>
</tr>
</tbody>
</table>

Sources: BRFSS, Maryland DHMH Office of Surveillance and Assessment, 1999, 2001
Maryland Cancer Survey, DHMH Center for Cancer Surveillance and Control, 2002, 2004
Current CRC Screening Status of Marylander’s ≥50 years old
Maryland Cancer Survey, 2002

*UTD—Up to date per Am. Cancer Society options for screening
Current CRC Screening Status of Marylander’s ≥50 years old
Maryland Cancer Survey, 2004

*UTD—Up to date per Am. Cancer Society options for screening
Current CRC Screening Status
Comparison of Whites and Blacks 50+ Years Old
Maryland Cancer Survey, 2004

- Col in past 10 yrs: 53% White, 44% Black
- UTD Sig and/or FOBT: 16% White, 19% Black
- Not UTD: 11% White, 9% Black
- Never Tested: 20% White, 28% Black
• People reporting a provider’s recommendation for endoscopy got screened.

Source: Maryland Cancer Survey, 2002 and 2004
Colorectal Cancer Screening? (50+ years)

Never Screened 23%

Ever Screened

Source: Maryland Cancer Survey, 2004
Colorectal Cancer Screening?
(50+ years)

Never Screened
23%

Ever Screened

85.8% have been to doctor for “routine checkup” in past 2 years

Only 14.2% have NOT had checkup

Source: Maryland Cancer Survey, 2004
Cigarette Restitution Fund (CRF) CRC Screening in Maryland
Cigarette Restitution Fund
CRC Screening Eligibility

• Uninsured
• Underinsured (some programs)
• Low income (usually <250% of Federal poverty guideline)

• Programs may give FOBT to any income and insurance status
Colorectal Cancer Screening for Average Risk Clients
by Type of Initial Screening Test -- FY 2001

Legend
- FOBT-SIG
- COLONOSCOPY
- FOBT
- NO CRC PROGRAM
Anne Arundel County does CRC education without screening as of 2004.
Summary of CRF CRC Screening

As of March 31, 2005:

- 7,715 FOBTs (all income levels)
- 115 Sigmoidoscopies
- 6,799 Colonoscopies
- 11,500 People with one or more screening procedures
- 13,669 CRC screening cycles

Source: DHMH Client Database, C-CoPD, as of 6/9/05
Number of Colorectal Cancer Screenings by Procedure and Fiscal Year
January 2000 - May 25, 2005

Source: CRF/CPEST Cancer Client Database, C-CoPD, as of 5/25/05
Screening by Minority Race/Ethnicity and Gender
Maryland Colorectal Cancer Program
Cigarette Restitution Fund, Jan 2000 - March 31, 2005

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minority Men</td>
<td>14%</td>
<td>1,650</td>
</tr>
<tr>
<td>Minority Women</td>
<td>32%</td>
<td>3,802</td>
</tr>
<tr>
<td>Non-Minority Women</td>
<td>32%</td>
<td>3,789</td>
</tr>
<tr>
<td>Non-Minority Men</td>
<td>13%</td>
<td>1,534</td>
</tr>
<tr>
<td>Unknown Minority Status</td>
<td>9%*</td>
<td>1,063</td>
</tr>
</tbody>
</table>

Source: DHMH Client Database, C-CoD, as of 5/24/05

* Approximately 1/3 were men
Findings among 7,756 Fecal Occult Blood Tests
Maryland Colorectal Cancer Program
Cigarette Restitution Fund, Jan 2000—March 31, 2005

Source: DHMH, Client Database, C-FL, as of 5/24/05
Findings among 6,745 Colonoscopies by Most Advanced Finding (mutually exclusive categories)
Maryland Colorectal Cancer Program Jan 2000 - March 31, 2005

*Other findings include diverticuli, hemorrhoids, inflammatory bowel dis.

Source: DHMH, Client Database—C-CoP, as of 5/24/05
Payment for Hospitalization -- FY 2004

Legend

- **LINK - UCC**
- **FEE FOR SERVICE**
- **NOT APPLICABLE**

* Pay for service until funds are depleted
** Link client to Uncompensated Care (charity care) at hospitals
CRF Colorectal Program Status

- Public Health CRC Screening is feasible
- Budget cuts challenge our progress
- How to pay for diagnosis and treatment for those screened under CRF Program?
- How to screen those not covered by our program or by insurance (e.g., Baltimore City)?
- How to work with partners to get everyone age-appropriately screened (Providers, Insurers, Coalitions, and Comp. Cancer Plan)?
Population-based Screening Data
Maryland--Ever Had Sigmoidoscopy and Colonoscopy
50 Years and Older by Year of Survey
Compared to Healthy People 2010 Objective

Sources: BRFSS, Maryland DHMH Office of Surveillance and Assessment, 1999, 2001
Maryland Cancer Survey, DHMH Center for Cancer Surveillance and Control, 2002, 2004
Selected Endoscopy Center Results 1999-2004

Garrett County--Garrett Memorial Hospital
Colonoscopies CY 1999-2002
Maryland Health Care Commission (MHCC) Data

- Insurers submit information on bills to MHCC
- MHCC obtains data from Medicare
- MHCC compiles data and can analyze by date, procedure billing code, age, jurisdiction of residence, etc.
Number of Insured Patients Who Had a Colonoscopy
and Number of Cigarette Restitution Fund Program Colonoscopies
Maryland, CY 1999-2003

<table>
<thead>
<tr>
<th>Year</th>
<th>Total MD Health Care Commission</th>
<th>CRF Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>64,069</td>
<td>640</td>
</tr>
<tr>
<td>2000</td>
<td>86,587</td>
<td>1,876</td>
</tr>
<tr>
<td>2001</td>
<td>119,430</td>
<td>1,976</td>
</tr>
<tr>
<td>2002</td>
<td>140,716</td>
<td>1,876</td>
</tr>
<tr>
<td>2003</td>
<td>150,619</td>
<td>1,976</td>
</tr>
</tbody>
</table>

Source: Maryland Health Care Commission—using HEDIS definition of Colonoscopy
Number of Insured Patients Who Had a Colonoscopy
by Age and Insurance
Maryland, 1999-2002

Source: Maryland Health Care Commission—using HEDIS definition of Colonoscopy
Percent of Insured Patients Who Received at Least One Service in the Year Who Had a Colonoscopy—Maryland, 1999-2002

Source: Maryland Health Care Commission—using HEDIS definition of Colonoscopy
Percent of Insured Patients Who Received at Least One Service in the Year Who Had a Sigmoidoscopy—Maryland, 1999-2001

*Numerator and denominator include insured patients 50-64 years of age

Source: Maryland Health Care Commission
Maryland--Ever Had Sigmoidoscopy and Colonoscopy
50 Years and Older by Year of Survey
Compared to Healthy People 2010 Objective

1.4 million Marylander’s 50+ years old
13% increase 1999 to 2004 = 184,000 more screened

Sources: BRFSS, Maryland DHMH Office of Surveillance and Assessment, 1999, 2001
Maryland Cancer Survey, DHMH Center for Cancer Surveillance and Control, 2002, 2004
Number of Insured Patients 50+ Who Had a Colonoscopy
Maryland, 1999-2003

192,000 more cols among those 50+

Baseline

Calendar Year

Source: Maryland Health Care Commission—using HEDIS definition of Colonoscopy
Can we screen all who need screening?
Study of Endoscopic Capacity in Maryland

CDC
Laura Seeff, MD, CDC Technical Monitor

Battelle—Centers for PH Research and Evaluation
Diane Manninen, Ph.D.
Frederick Dong, A.M.
Linda Winges, M.A.
Maryland population 50 years and older
1.5 million

Average risk
1.4 million

Increased risk
130,000 (8%)

Screened
• 898,000 (64%)

Unscreened
• 530,000 (36%)
  • 57% female
  • 32% non-white
  • 30% > 65
  • 7% low income, uninsured, 50-64
    (36,000)

What is Maryland’s capacity to screen?
By what method? Over what time period?

Source: Maryland SECAP, June 2005 Preliminary Data
Is there capacity in Maryland?

- Est. 132 practices/facilities performing colonoscopy in MD
- Est. they could do 256,000 more colonoscopies per year
  (62% more than current est. of 412,000/yr)
- Using this maximum capacity estimate:
  capacity to screen 530,000 by colonoscopy in Maryland in 2 years!

- Caveat: estimated annual colonoscopies reported to SECAP exceed the number of colonoscopies reported to MHCC (412K vs. 150K)
  - SECAP survey may overestimate capacity??
  - MHCC excludes in-patient cols, non-residents, and self-pay

Source: Maryland SECAP, June 2005 Preliminary Data
Public Health Grand Rounds is a series of satellite broadcasts and webcasts presenting real-world case studies on public health issues ranging from obesity to bioterrorism, from SARS to food safety.

You can register to view the upcoming program at a satellite downlink location near you, or from your own desk via webcast. You can also view webcasts of our archived programs.

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Update your address book with our new email address:

GrandRounds@unc.edu

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Centers for Disease Control and Prevention
University of North Carolina School of Public Health

Partners

Association of Schools of Public Health
Association of State and Territorial Health Officials
National Association of County and City Health Officials
Public Health Training Network

June 10, 2005
2:00 to 3:00 pm ET

Collaborating to Conquer Colorectal Cancer
Fulfilling the Promise of Prevention
A National Satellite Broadcast & Webcast

View Handouts

Go to participant registration
View program information
Go to site registration
Satellite coordinates
Information for Site Facilitators
List of Registered Sites
Flyer

Satellite coordinates available May 27.
Together, we are making Maryland a CRC model for the Nation.

Thank you!
Cigarette Restitution Fund (CRF)  
Cancer Prevention, Education, Screening and Treatment Program

**Overall Goals**

- Decrease Cancer Mortality
- Reduce Disparities among Minorities
CRF Budget—Local Public Health for Education, Outreach, Screening*, and Treatment*

*About 50% annually has been allocated to screening and treatment of one or more of the “targeted cancers”
Create a Network through Partnerships and Contracts
CRF Cancer Control “Network”

- U Maryland Baltimore Preventive Med and Epi.
- State Health Dept. Program
  - Minority Outreach, Technical Assistance
  - Community based orgs.
  - Faith based organizations
  - Volunteers
- 25 Local PH Programs
- 24 Community Health Coalitions
- Providers: Doctors Labs, Hospitals, Pharmacies
- 2 Statewide Academic Health Centers: Research, PH, Statewide Health Network
- Maryland Citizens, esp. Minority & Underserved
Number of FOBTs and Percent Positive FOBT (in parenthesis) between 2000 and April 28, 2005, by Maryland Jurisdiction

Maryland Department of Health and Mental Hygiene

Center for Cancer Surveillance and Control

Source: Client Database (Report 1B1a/C-CoPD as of 5/2/05)
Number of Colonoscopies in CRF Program and Number of Cancers Detected (in parenthesis) between 2000 and April 28, 2005, by Maryland Jurisdiction

Maryland Department of Health and Mental Hygiene

Center for Cancer Surveillance and Control

Source: Client Database (Report 1B1a/C-CoPD as of 5/2/05)
Number of People New to Colorectal Cancer Screening Program* between 2000 and April 28, 2005

Maryland Department of Health and Mental Hygiene
Center for Cancer Surveillance and Control

Source: Client Database (Report 1B1a/C-CoP as of 5/2/05)

* Each person had one or more CRC procedures (FOBT, Sigmoidoscopy, Colonoscopy, DCBE and a small number of clients who had a prescreening/physical exam but did not follow through with CRC screening tests)
Percent of Minority Race or Ethnicity Among People New to Colorectal Cancer Screening* between 2000 and 2005, by Maryland Jurisdiction

Maryland Department of Health and Mental Hygiene
Center for Cancer Surveillance and Control

Source: Client Database (Report 1B1a/C-CoPD as of 5/2/05)

* Each person had one or more CRC procedures (FOBT, Sigmoidoscopy, Colonoscopy, DCBE and a small number of clients who had a prescreening/physical exam but did not follow through with CRC screening tests)
Percent of Insured Patients Who Received at Least One Service in the Year Who Had an **Gastroscopy**—Maryland, 1999-2001

* *Numerator and denominator include insured patients 50-64 years of age*

Source: Maryland Health Care Commission