

# COLORECTAL CANCER SCREENING INFORMATION FOR PROVIDERS

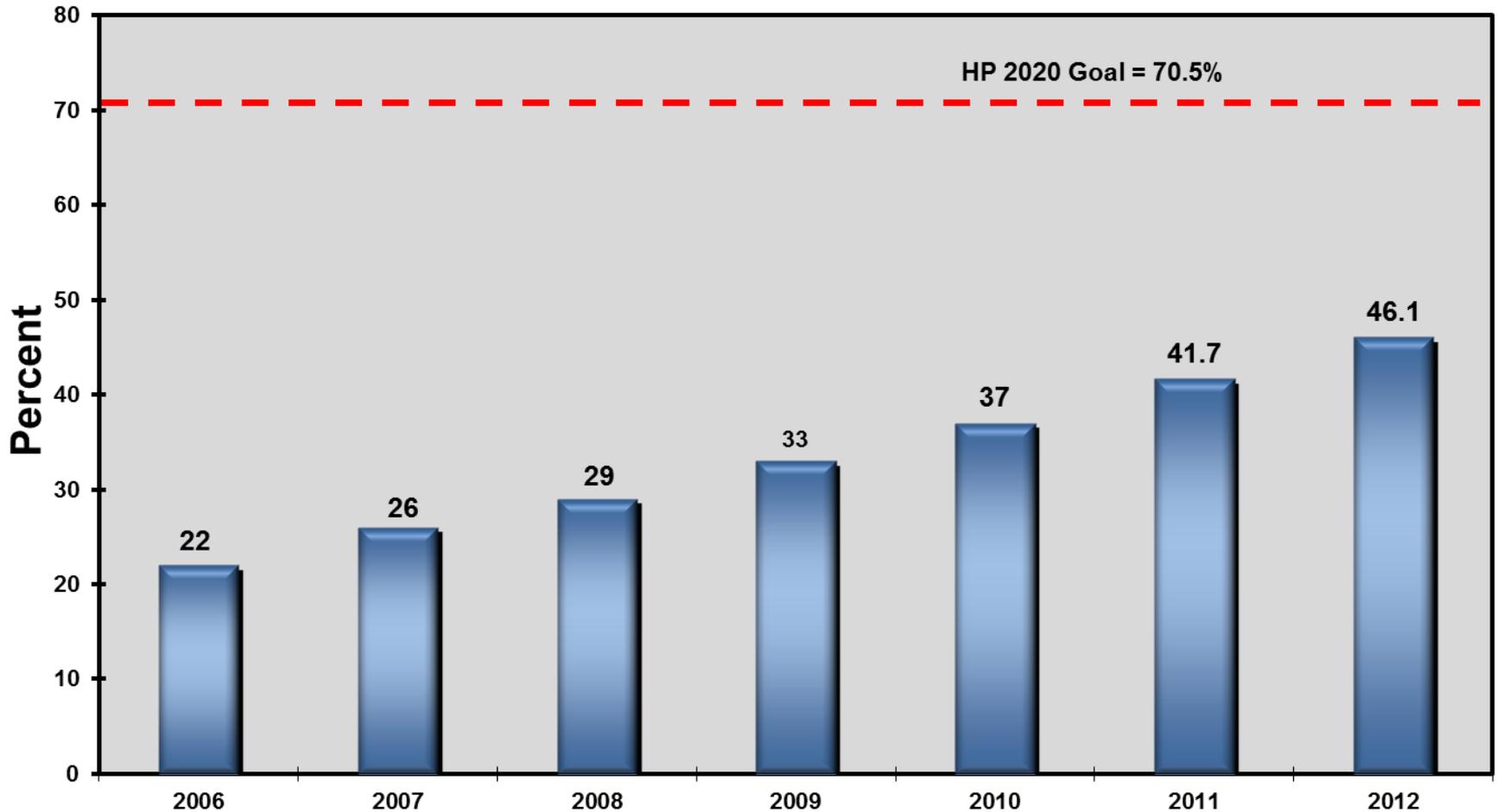
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Indian Health Service  
National GPRA Team

# Measure Logic

- **Denominator:** Active Clinical patients ages 50 through 75 without a documented history of colorectal cancer or total colectomy.
- **Numerator:** Patients who have had any CRC screening, defined as any of the following:
  - 1) Fecal Occult Blood Test (FOBT) or Fecal Immunochemical Test (FIT) during the report period (i.e. the past year)
  - 2) Flexible Sigmoidoscopy in the past 5 years
  - 3) Colonoscopy in the past 10 years

# IHS National (Federal and Tribal) GPRA Colorectal Cancer Screening Rates



Source: Annual CRS GPRA reports

# Colorectal Cancers: Incidence and Mortality

- Although colorectal cancer mortality rates have declined since the mid 1970s, colorectal cancers are the third most common cancer in the United States, and are the second leading cause of cancer deaths.<sup>1</sup>
- An estimated 142,820 new cases of colorectal cancer and 50,830 colorectal cancer-related deaths are projected to occur in 2013 in the United States.<sup>2</sup>

<sup>1</sup>U.S. Cancer Statistics Working Group. *United States Cancer Statistics: 1999–2006 Incidence and Mortality Web-based Report*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2010.

<sup>2</sup>Howlader N, Noone AM, Krapcho M, Neyman N, Aminou R, Altekruse SF, Kosary CL, Ruhl J, Tatalovich Z, Cho H, Mariotto A, Eisner MP, Lewis DR, Chen HS, Feuer EJ, Cronin KA (eds). *SEER Cancer Statistics Review, 1975-2009 (Vintage 2009 Populations)*, National Cancer Institute. Bethesda, MD, [http://seer.cancer.gov/csr/1975\\_2009\\_pops09/](http://seer.cancer.gov/csr/1975_2009_pops09/), based on November 2011 SEER data submission, posted to the SEER web site, 2012..

# Colorectal Cancer rates among American Indians

- From 1999-2004 overall incidence (per 100,000) of colorectal cancer was 9% lower in American Indians than non-Hispanic whites, but rates among American Indians vary widely across the U.S.
  - Incidence rates of CRC were higher in American Indians in the Northern Plains (72.5) and Southern Plains (60.2) than non-Hispanic whites (50.8)<sup>3</sup>
- Native Americans from the Northern Plains have the highest age-adjusted cancer mortality compared to Native Americans from any other region in the U.S.<sup>4</sup>

<sup>3</sup>Perdue, DG, Perkins, C, Jackson-Thompson, J, Coughlin, SS, Ahmed, F, Haverkamp, D, Jim, MA. Regional differences in colorectal cancer incidence, stage, and subsite among American Indians and Alaska Natives, 1999-2004. *Cancer*. 2008; 113(S5): 1179-1190.

<sup>4</sup>Pandhi, N, Guadagnolo, BA, Kanekar, S, Petereit, DG, Smith, MA. Cancer Screening in Native Americans from the Northern Plains. *American Journal of Preventive Medicine*. 2010; 38(4): 389-395.

# Colorectal Cancer rates among Alaska Natives

- Colorectal cancer rates among Alaska Natives are well above the national average.<sup>5</sup>
- A long-term surveillance project found a colorectal cancer rate of 98.5 per 100,000 among Alaska Native men, and 106.2 per 100,000 among Alaska Native women, compared to 61.4 among non-Hispanic white men, and 40.6 among non-Hispanic white women in Alaska.<sup>5</sup>

<sup>5</sup>Perdue, DG, Perkins, C, Jackson-Thompson, J, Coughlin, SS, Ahmed, F, Haverkamp, D, Jim, MA. Regional differences in colorectal cancer incidence, stage, and subsite among American Indians and Alaska Natives, 1999-2004. *Cancer*. 2008; 113(S5): 1179-1190.

# Colorectal cancers less likely to be diagnosed at earlier stages in AI/ANs

- Between 1999 and 2003, 66.5% of AI/ANs were diagnosed at late stage disease compared with 59.6% of non-Hispanic whites.<sup>6</sup>
- Patients diagnosed at the local stage have a five-year relative survival rate of about 90%, those diagnosed at the regional stage have a 70% five-year relative survival rate, and those diagnosed at the distant stage have a 12% five-year relative survival rate.<sup>7</sup>

<sup>6</sup>Perdue, DG, Perkins, C, Jackson-Thompson, J, Coughlin, SS, Ahmed, F, Haverkamp, D, Jim, MA. Regional differences in colorectal cancer incidence, stage, and subsite among American Indians and Alaska Natives, 1999-2004. *Cancer*. 2008; 113(S5): 1179-1190.

<sup>7</sup>Altekruse SF, Kosary CL, Krapcho M, Neyman N, Aminou R, Waldron W, Ruhl J, Howlader N, Tatalovich Z, Cho H, Mariotto A, Eisner MP, Lewis DR, Cronin K, Chen HS, Feuer EJ, Stinchcomb DG, Edwards BK (eds). *SEER Cancer Statistics Review, 1975-2007*, National Cancer Institute. Bethesda, MD

# Colorectal Cancer Risk Factors

- The primary risk factor for colorectal cancer is age, with more than 90% of cases occurring in persons aged 50 years or older.<sup>8</sup>
  - A person at age 50 has a 5% lifetime risk of being diagnosed with colorectal cancer and a 2.5% chance of dying from it.<sup>9</sup>
- Risk is increased by a personal or family history of colorectal cancer and/or polyps, or a personal history of inflammatory bowel disease.

<sup>8</sup> Ries LAG, Eisner MP, Kosary CL, Hankey BF, Miller BA, Clegg L, Mariotto A, Feuer EJ, Edwards BK (eds). *SEER Cancer Statistics Review, 1975-2002*, National Cancer Institute. Bethesda, MD

<sup>9</sup>Ries LA, Wingo PA, Miller DS, et al. The annual report to the nation on the status of cancer, 1973-1997, with special section on colorectal cancer. *Cancer*. 2000;88:2398-2424.

# Colorectal Cancer Risk Factors

- Other risk factors include smoking, high alcohol consumption, obesity, physical inactivity, a diet high in saturated fat and/or red meat, and inadequate intake of fruits and vegetables.<sup>10</sup>
- Surveys of the Alaska Native diet have reported several risk factors, including very low intake of fruit and vegetables, low levels of dietary fiber, and high intake of refined carbohydrates and sugars.<sup>11</sup>

<sup>10</sup>Huxley, RR, Ansary-Moghaddam, A, Clifton, P, Czernichow, CL, Woodward, M. The impact of dietary and lifestyle risk factors on risk of colorectal cancer: A quantitative overview of the epidemiological evidence. *International Journal of Cancer*. 2009; 125(1): 171-180.

<sup>11</sup>Miller BA, Kolonel LN, Bernstein L, Young, Jr. JL, Swanson GM, West D, Key CR, Liff JM, Glover CS, Alexander GA, et. al. (eds). *Racial/Ethnic Patterns of Cancer in the United States, 1988-1992*, National Cancer Institute. NIH Pub. No. 96-4103. (SEER Program) Bethesda, MD , 1996.

# Screening recommendations from the CDC and USPSTF

- The CDC and the U.S. Preventive Services Task Force recommends screening for colorectal cancer beginning at age 50 years and continuing until age 75 years using one of the recommended screening tests<sup>12</sup>:
  - High-sensitivity fecal occult blood test (every year)
  - Flexible sigmoidoscopy (every 5 years)
  - Colonoscopy (every 10 years or if patient is symptomatic or has had an abnormal test result from another colorectal cancer screening test)

<sup>12</sup>U.S. Preventive Services Task Force. *Guide to Clinical Preventive Services, 2008: Recommendations of the U.S. Preventive Services Task Force*. AHRQ Publication No. 08-05122, September 2008. Agency for Healthcare Research and Quality, Rockville, MD

# US Preventive Services Task Force Guidance

- The USPSTF strongly recommends that clinicians screen men and women for colorectal cancer beginning at age 50 years and continuing until age 75 years.
- Studies reviewed by the USPSTF “indicate that colorectal cancer screening is likely to be cost-effective (less than \$30,000 per additional year of life gained) regardless of the strategy chosen.”<sup>13</sup>
- The USPSTF also recommends screening with a combination of high-sensitivity fecal occult blood tests (every 3 years) and flexible sigmoidoscopy (every 5 years)<sup>14</sup>

<sup>13</sup>USPSTF *Screening for Colorectal Cancer* 2002. <http://www.ahrq.gov/clinic/uspstf/uspscolo.htm>

<sup>14</sup>U.S. Preventive Services Task Force. *Guide to Clinical Preventive Services, 2008: Recommendations of the U.S. Preventive Services Task Force*. AHRQ Publication No. 08-05122, September 2008. Agency for Healthcare Research and Quality, Rockville, MD

# Effectiveness of Colorectal Cancer Screening

- It is estimated that population colorectal cancer screening could save 18,800 lives per year.<sup>15</sup>
- Biennial fecal occult blood screening has been shown to result in a 15% reduction in colorectal cancer mortality.<sup>15</sup>
- Colorectal cancers have long asymptomatic periods during which they can be diagnosed and treated.

<sup>15</sup>US Preventive Services Task Force. Screening for Colorectal Cancer: U.S. Preventive Services Task Force Recommendation Statement. *Annals of Internal Medicine*. 2008; 149(9): 627-637.

# Cost-Effectiveness of Screening

- Screening for colorectal cancer extends life at a cost of \$11,890 to \$29,725 per year of life saved.<sup>16,17</sup>
- Health economists generally agree that if an intervention can save 1 year of life for less than \$50,000, it is cost-effective.<sup>16,17</sup>

<sup>16</sup>Pignone M, Saha S, Hoerger T, et al. Cost-effectiveness analyses of colorectal cancer screening: a systematic review for the U.S. Preventive Services Task Force. *Annals of Internal Medicine* 2002;137(2):96–104.

<sup>17</sup>Gold MR, Siegel JE, Russell LB, Weinstein MC. Cost-Effectiveness in Health and Medicine. New York: Oxford University Press, 1996.

# Documenting Colorectal Cancer Screening in CRS (CRS 13.0)

- FOBT or FIT – CPT 82270, 82274, 89205 (old code), G0107 (old code), G0328, G0394 (old code)
- – LOINC taxonomy
- – Site-populated taxonomy BGP GPRA FOB TESTS
  
- Flexible Sigmoidoscopy – Procedure 45.24
- – CPT 45330 through 45345, G0104
  
- Colonoscopy – Procedure 45.22, 45.23, 45.25, 45.42, 45.43
- – CPT 44388 through 44394, 44397, 45355, 45378 through 45387, 45391, 45392, G0105, G0121

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