Seizing the Transformative Opportunity of Multi-cancer Early Detection

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About ITIF

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- Supports policies driving global, innovation-based economic growth.
- Focuses on a host of issues at the intersection of technology innovation and public policy across several sectors:
  - Innovation and competitiveness
  - IT and data
  - Telecommunications
  - Trade and globalization
  - Manufacturing, life sciences, agricultural biotech, and energy
The Promise of Multi-cancer Early Detection (MCED)

- Cancer remains an implacable enemy.
- MCED leverages emerging biotech/IT platforms into a new cancer-screening approach.
- Holds potential to screen for many more cancers and detect them at much earlier stages.
- Could largely transform cancer-detection from symptom- to screen-detected.
- Potentially significant health economic benefits.
The Need for a New Cancer-screening Approach

Age-adjusted Mortality Rate Per 100,000 Population

Most Cancers Lack Recommended Screening Options

Global Cancer Fatalities, by Type, 2017

- Tracheal, bronchus, and lung cancer
- Colon and rectum cancer
- Stomach cancer
- Liver cancer
- Breast cancer
- Pancreatic cancer
- Esophageal Cancer
- Prostate cancer
- Leukemia
- Cervical cancer
- Brain and nervous system cancer
- Bladder cancer
- Lip and oral cavity cancer
- Ovarian cancer
- Gallbladder and biliary tract cancer
- Kidney cancer
- Larynx cancer
- Other pharynx cancer
- Multiple myeloma
- Other cancers
- Uterine cancer
- Nasopharynx cancer
- Non-melanoma skin cancer
- Malignant skin melanoma
- Thyroid cancer
- Hodgkin lymphoma
- Testicular cancer

Source: Courtesy Dr. Bert Vogelstein, “Webinar on the Multi-Cancer Early Detection Screening Coverage Act”
Potentially Significant Economic Benefits

- Cancer: Second-most-costly disease in U.S.; 1% GDP.

- Treatment of metastatic cancer 2x as costly as non-metastatic.

- A 1% reduction in cancer mortality could deliver $500 billion in net present benefits (a cure $50 trillion).
MCED Screening Benefits

- Less-invasive screening.
- Help reduce racial and socioeconomic disparities.
- Help address the COVID-19-induced screening gap.

Source: Ezell, “Seizing the Transformative Opportunity of Multi-cancer Early Detection”
Addressing Potential MCED Misgivings

- Cancers with no or few therapeutic alternatives.
- Limiting incidences of false positives: over- vs. under-diagnosis.
- Significant increase in cancer detection would overwhelm the health care system/economy.

Source: Ezell, “Seizing the Transformative Opportunity of Multi-cancer Early Detection”
Policy Recommendations

- Congress should pass the Medicare Multi-cancer Early Detection Screening Coverage Act.

- The Biden administration/Congress should increase NIH funding, including for the Cancer Moonshot.

- Invest in America’s biomedical STEM talent.

Source: Ezell, “Seizing the Transformative Opportunity of Multi-cancer Early Detection”
Thank You!

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