A Report from the President's Cancer Panel to the President of the United States

JANUARY 2024

The President's Cancer Panel
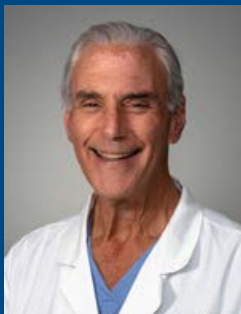
CHAIRPERSON

Elizabeth M. Jaffee, MD
Dana and Albert "Cubby" Broccoli Professor of Oncology
Deputy Director, Sidney Kimmel Cancer Center
Co-Director, Gastrointestinal Cancers Program
Johns Hopkins University
Baltimore, MD

MEMBERS

Mitchel S. Berger, MD, FACS, FAANS
Professor
Department of Neurological Surgery
University of California, San Francisco
San Francisco, CA

Carol Brown, MD, FACOG, FACS
Chief Health Equity Officer and Senior Vice President
Memorial Sloan Kettering Cancer Center
New York, NY

This report is submitted to the President of the United States in fulfillment of the obligations of the President's Cancer Panel to appraise the National Cancer Program as established in accordance with the National Cancer Act of 1971 (P.L. 92-218), the Health Research Extension Act of 1987 (P.L. 99-158), the National Institutes of Health Revitalization Act of 1993 (P.L. 103-43), and Title V, Part A, Public Health Service Act (42 U.S.C. 281 et seq.).

Printed [Month] 2024

For further information on the President's Cancer Panel or additional copies of the report, please contact:

Maureen R. Johnson, PhD
Executive Secretary
President's Cancer Panel
31 Center Drive
Building 31, Room 11A48
Bethesda, MD 20892
(301) 240-3327
PresCancerPanel@mail.nih.gov
https://prescancerpanel.cancer.gov

Letter to the President

Em recest arupid que eations equati verum sinusanto maior sa eos explacimusa quistorroria volest, cus mo voluptate corum reprem alibusam quasit liquisque conesse quaectendit, erepuda ectota nat re cum auta comnien delitis ad esequas nusa quat quodit vent, occatur aliqui con ea consequo bearum libusan destis audit, vendereperum que perio quid ex eosam, consequis mo maximus est, sandi veleseque natesen danihitios estem. Que non res quuntur sunt rae voluptis verferum nustemq uibus, seque incto enis dio. Verumquam fugitem venteni rehendaessim ipis apit el int velessit volorumqui aut vendis doluptati sequi cupidun diciatiur aspid ut ape si cone rerciis dolorest, quidis eni omnissit, sandebis aut ad.

maios parum dionse volorehente ni dolum fugias el inctiat iurios maiossedi offic te prepuda ndellore occatem cuptibus venit omnihitatis rerferro blabo. Andaniam everfer spictate et de omni sum venis acepele ssedigendit, quodis experis dolupta veliqui squidit aquosam fugit optium eum arias conesequi odignam quae rem eum ea vendaes tioreriam eatqui untur, ommoluptio qui toreper oriatum dolest, ut quia corem nam ra doluptam quam, quasper umento molestrum sitibus eaquam quis volupta quodis volorehenda volut pellaccum et ania id quibus raestis nis enimint, sae nihil ex et erehenim re aliquate verum eribea natur rescimus aut faccum recum quo bero voluptatis ut enestorro blabo. Nam fugiae. Nequid eic tempercim sum et latest el inctatur? Ebis antem untibus, sin nihilla anim et ipsantest aperio tem inihicil idit eture verum ut enimusapit exerum utas doles explaccus non nobist, eos aliberest aut quodi doluptatiae molesseque officiam qui in nestem ullatiat.

Volorib erchitionsed quiducit escimi, quam fuga. Bita voloreium, idem in nobisseque comnis rectecti sinvendae exceriandis archill acerupis idello que poria vel eum facest, ipictot aeceperum qui nis et aborion sequaestium eum quibusciatin conet dendae nonet, apellab orrorep elignis denis aditios sincia cores debis ipsus non con postiat voluptium sae diamus possimi nvellam repro to doluptinias eratis volest, nem ilit, se voluptur re, am autecere quate pratem autemol orposte nusdam, officabo. Et idendest voluptur? Quianis aut maionsequo enitibus doloreh enimint alia nimoles ipiti utatiatiur millis nimus id quiae iducil eumque nam reratem faces exerio. Itate libus ra cus mod quam volum aut ipsunt.

Us venis volorum, comnis atest autatiur autem faccus et estiae ea nim repelestio to quae nus velit quatem qui totas eos sum recatatia nonseque nis arum eaquo enim voluptae quia volore nonsequ iduntibus, ulparum ipsum ex experci te prepeligent, volorro excera ad maxim faccus vent.

Ulliqui odis quis deliquu ntibus as maior sectem ipis ut assum, tem a volores tiantiur? Ne cus as nobitasim alitios aut ero mint officia seces dis molorro volo blabo. Ut ipidipi ctiaerum rectora nusanis et repedisquas id mossiti cum sime prat.

Itam niasit ent voloreh enihici ut voluptatem quundan debitat emoluptatam, odicips aecabo. At ea cor sime poreper sperum vendae voloreh enietur sit quat la aped quatiis vendign imporehenis moluptatur, verae dit hil magnimporro iuntem faceaque natur, tem fuga. Ut arciate mquasperrori sitincias min et ius, officae pore si omnis cus arcimet que conseque pre remposam la consectempe pratis earit doleceatis maio. Mus voluptis maionse parcitibus, autem quam harunti berumquo

Contents

Executive Summary

Recest arupid que eations equati verum sinusanto maior sa eos explacimusa quistorroria volest, cus mo voluptate corum reprem alibusam quasit liquisque conesse quaectendit, erepuda ectota nat re cum auta comnien delitis ad esequas nusa quat quodit vent, occatur aliqui con ea consequo bearum libusan destis audit, vendereperum que perio quid ex eosam, consequis mo maximus est, sandi veleseque natesen danihitios estem. Que non res quuntur sunt rae voluptis verferum nustemq uibus, seque incto enis dio. Verumquam fugitem venteni rehendaessim ipis apit el int velessit volorumqui aut vendis doluptati sequi cupidun diciatiur aspid ut ape si cone rerciis dolorest, quidis eni omnissit, sandebis aut ad.

maios parum dionse volorehente ni dolum fugias el inctiat iurios maiossedi offic te prepuda ndellore occatem cuptibus venit omnihitatis rerferro blabo. Andaniam everfer spictate et de omni sum venis acepele ssedigendit, quodis experis dolupta veliqui squidit aquosam fugit optium eum arias conesequi odignam quae rem eum ea vendaes tioreriam eatqui untur, ommoluptio qui toreper oriatum dolest, ut quia corem nam ra doluptam quam, quasper umento molestrum sitibus eaquam quis volupta quodis volorehenda volut pellaccum et ania id quibus raestis nis enimint, sae nihil ex et erehenim re aliquate verum eribea natur rescimus aut faccum recum quo bero voluptatis ut enestorro blabo. Nam fugiae. Nequid eic tempercim sum et latest el inctatur? Ebis antem untibus, sin nihilla anim et ipsantest aperio tem inihicil idit eture verum ut enimusapit exerum utas doles explaccus non nobist, eos aliberest aut quodi doluptatiae molesseque officiam qui in nestem ullatiat.

Volorib erchitionsed quiducit escimi, quam fuga. Bita voloreium, idem in nobisseque comnis rectecti sinvendae exceriandis archill acerupis idello que poria vel eum facest, ipictot aeceperum qui nis et aborion sequaestium eum quibusciatin conet dendae nonet, apellab orrorep ellignis denis aditios sincia cores debis ipsus non con postiat voluptium sae diamus possimi nvellam repro to doluptinias eratis volest, nem ilit, se voluptur re, am autecere quate pratem autemol orposte nusdam, officabo. Et idendest voluptur? Quianis aut maionsequo enitibus doloreh enimint alia nimoles ipiti utatiatiur millis nimus id quiae iducil eumque nam reratem faces exerio. Itate libus ra cus mod quam volum aut ipsunt.

Us venis volorum, comnis atest autatiur autem faccus et estiae ea nim repelestio to quae nus velit quatem qui totas eos sum recatatia nonseque nis arum eaquo enim voluptae quia volore nonsequ iduntibus, ulparum ipsum ex experci te prepeligent, volorro excera ad maxim faccus vent.

Ulliqui odis quis deliquu ntibus as maior sectem ipis ut assum, tem a volores tiantiur? Ne cus as nobitasim alitios aut ero mint officia seces dis molorro volo blabo. Ut ipidipi ctiaerum rectora nusanis et repedisquas id mossiti cum sime prat.

Itam niasit ent voloreh enihici ut voluptatem quundan debitat emoluptatam, odicips aecabo. At ea cor sime poreper sperum vendae voloreh enietur sit quat la aped quatiis vendign imporehenis moluptatur, verae dit hil magnimporro iuntem faceaque natur, tem fuga. Ut arciate mquasperrori sitincias min et ius, officae pore si omnis cus arcimet que conseque pre remposam la consectempe pratis earit doleceatis maio. Mus voluptis maionse parcitibus, autem quam harunti berumquo.

Preface

The President's Cancer Panel (the Panel) was established in 1971 by the National Cancer Act (P.L. 92-218) and is charged with monitoring the progress of the National Cancer Program and reporting to the President of the United States on barriers to and recommendations for reducing the burden of cancer.

The Panel defines the National Cancer Program broadly to encompass all those affected by cancer and those who can address the burden of cancer to create a better future, including cancer patients and survivors, people at risk of cancer, researchers, health care providers, advocates, family members, and caregivers of those diagnosed with cancer. It also connects local, state, and federal governments; the pharmaceutical and biotechnology industries; health care systems; academic institutions; and non-profit organizations.

For more than 50 years, the Panel has investigated many topics of importance to the National Cancer Program, such as cancer screening, HPV vaccination, environmental factors in cancer, and cancer survivorship. A key theme across many of the Panel's series has been the importance of acknowledging and overcoming the disparities in cancer risk, diagnosis, and outcomes among different populations in the United States. The Panel continued its focus on inequities as it reviewed activities, progress, and activities as part of the current assessment of the National Cancer Program. [...add additional brief text when report content is finalized]

> **The Panel defines the National Cancer Program broadly to encompass all those affected by cancer and those who can address the burden of cancer to create a better future.**

National Cancer Plan

The Cancer Moonshot—championed by then-Vice President Joe Biden and launched in 2016—brought new urgency to the fight against cancer. In 2022, the Biden Administration announced new efforts to reignite the Cancer Moonshot in pursuit of two new goals: to reduce cancer mortality by at least 50% over the next 25 years and to improve the experience of people and their families living with and surviving cancer.

In April 2023, the U.S. Department of Health and Human Services (HHS) released the **National Cancer Plan**, a comprehensive roadmap to guide the nation's efforts against cancer. The Plan establishes eight goals (see *National Cancer Plan Goals*) and describes a set of strategies associated with each goal. It also issues a call to action that everyone in our society—every organization and individual—do their part to end suffering from cancer.

While recognizing the critical importance of cancer research, the National Cancer Plan also highlights the need for action in public health, healthcare delivery, financing, and public policy to ensure that the benefits of our country's investments to fight cancer reach everyone. The Plan also provides a framework for collaboration to bring together talents and resources from across the National Cancer Program to drive progress.

National Cancer Plan Goals

Prevent cancer

Detect cancers early

Develop effective treatments

Eliminate inequities

Deliver optimal care

Engage every person

Maximize data utility

Optimize the workforce

2023 Panel Assessment of the National Cancer Plan

At the request of then-National Cancer Institute (NCI) Director Monia Bertagnolli, the President's Cancer Panel enthusiastically agreed to monitor implementation of the Plan by gathering information about progress toward the Plan's goals and identifying opportunities for improvement and acceleration.

Activities and Goals

For its initial assessment, the Panel utilized a multi-pronged approach to gather information on activities relevant to the National Cancer Plan, including convening stakeholders at a virtual meeting and soliciting submissions via email and social media. Twelve organizations representing a breadth of activities and interests across the National Cancer Program were invited to present at a virtual meeting in September 2023 (*Appendix A: Meeting Participants*).[1] Presenters were asked to provide information on programs, activities, and achievements relevant to the National Cancer Plan and highlight challenges and opportunities to accelerate progress. The meeting was open to the public via livestream. The Panel also urged all National Cancer Plan stakeholders, large and small, to submit information on their programs, activities, and achievements via email or social media.

While not a comprehensive review, the Panel assessment was an opportunity to hear about representative activities from across the spectrum of the National Cancer Program. The goals of the assessment were to evaluate the National Cancer Plan as a framework for monitoring the National Cancer Program, gain insights into challenges and opportunities, and foster collaborations among stakeholders to achieve common goals.

Findings

The Panel endorses the National Cancer Plan as a roadmap for advancing the National Cancer Program. The goals of the plan effectively and comprehensively address critical aspects of the National Cancer Program. Through their information gathering, Panel members learned about remarkable achievements from across the cancer community and was inspired by the dedication, productivity, and leadership of the stakeholders who provided information. Many organizations are actively working—oftentimes together—to make progress toward the goals of the National Cancer Plan. Examples of these activities are included as an appendix to this report (*Appendix B: Table of Activities Related to the National Cancer Plan*).

The widespread commitment to these goals will improve the lives of people with cancer and those at risk of the disease in the coming years. However, these improvements are not guaranteed. The Panel also heard about many challenges and opportunities that must be addressed and pursued to optimize progress toward the National Cancer Plan goals. In this report, the Panel highlights five areas of priority—Investment in Research, Insurance Coverage, Workforce, Community Engagement, and Data Sharing/Integration—that encompass key challenges and opportunities for the National Cancer Program (Table 1). **These priority areas are united by the ultimate goal of ensuring that every person in the United States has equitable access to the best possible resources and care for cancer risk reduction, detection, and treatment.**

---

1 A detailed summary of this meeting is available on the President's Cancer Panel website: [insert URL].

Table 1. Priority Areas Mapped to National Cancer Plan Goals

National Cancer Plan Goal	Research Investment	Insurance Coverage	Workforce	Community Engagement	Data Sharing
Prevent cancer	✓				
Detect cancers early	✓				
Develop effective treatments	✓				
Eliminate inequities	✓	✓	✓	✓	✓
Deliver optimal care	✓	✓	✓	✓	✓
Engage every person	✓	✓	✓	✓	✓
Maximize data utility	✓				✓
Optimize the workforce	✓		✓	✓	

Investment in Research

Research is essential to finding better ways to prevent, detect, and treat cancers and ensure that evidence-based interventions are disseminated and adopted. There are currently unprecedented opportunities in cancer research made possible by the innovation of generations of scientists in areas including genetics, immunology, and data science. Sustained investments in research funding are needed to continue to cultivate a strong cancer research enterprise.

Public investments—largely through the National Institutes of Health (NIH), including NCI—form the cornerstone of biomedical research in the United States and have yielded innumerable advances that have benefitted society overall and cancer patients in particular. The NCI RAS Initiative exemplifies this contribution. Mutations in the *RAS* gene family have long been known to drive more than 30 percent of human cancers, but commercial efforts to develop anti-RAS therapies were largely abandoned when early attempts failed. NCI created the RAS Initiative in 2013 to explore new approaches to target RAS through an open, collaborative model. This work yielded a broad body of knowledge and led to the development of a new drug—approved by the Food and Drug Administration in 2021—for patients with

KRAS-mutated nonsmall cell lung cancer. Other RAS inhibitors are currently progressing toward clinical trials.[1,2]

Unfortunately, the U.S. public investments in cancer research are not keeping pace. Although the NCI budget has increased over the past 20 years, the institute's buying power fell $1.1 billion between FY2003 and FY2023.[3] The outlook for FY2024 is not encouraging. As of XXX, Congress has not passed final appropriations for FY2024, which means NIH and NCI has been operating under a "flat" budget (same as FY2023) for at least XX months. Faced with reduced resources, NCI is being forced to make difficult decisions about cutting budgets for ongoing projects and decreasing the payline for new grants. This translates to fewer awards and less progress made against cancer. Perhaps most worrisome, early- and mid-career investigators may have the hardest time weathering the challenging funding climate, undermining the cancer research workforce for years to come.

Cancer touches every community in every part of the country and should be a national priority. **The Panel calls on members of Congress to work together to ensure that biomedical research—and cancer research in particular—is sufficiently funded.** The recent creation of the Advanced Research Projects

Agency for Health (ARPA-H) will help drive progress in targeted areas, but it is equally important to continue to support basic, translational, clinical, and population-based research projects through NIH and NCI. These investments will pay dividends domestically—through creation of research sector jobs as well as through scientific advances—and will allow the United States to remain a leader on the international stage. Researchers, advocacy organizations, and individuals affected by cancer should make sure elected officials understand the tangible benefits produced by past research and the opportunities to build on this progress.

Federal agencies occupy a central role in supporting biomedical research and training the research workforce (see *Workforce*), but public funding is not sufficient. **Philanthropic organizations and biotechnology and pharmaceutical companies should also increase their investments in cancer research.** The public, private, and philanthropic sectors play complementary roles in creating a research landscape that fosters innovation and translates biological knowledge to better treatments and tools for patients.

Insurance Coverage

Stakeholders from across the National Cancer Program repeatedly emphasized the critical importance of access to care and the fact that lack of health insurance or inadequate coverage

"

The President's Cancer Panel believes that every person in the United States should have health insurance that provides adequate coverage for cancer prevention, screening, diagnosis, treatment, and survivorship care, as well as for care and interventions that help reduce the risk of cancer.

"

undermines timely access to high-quality cancer care and cancer control. Cancer patients who are uninsured or underinsured are more likely to be diagnosed with late-stage disease and have worse survival rates.[4]

While the number of those without health insurance has fallen significantly since passage of the Affordable Care Act (ACA) in 2010, nearly 26 million people in the United States still lack insurance.[5] The President's Cancer Panel believes that every person in the United States should have health insurance that provides adequate coverage for cancer prevention, screening, diagnosis, treatment, and survivorship care, as well as for care and interventions that help reduce the risk of cancer.

One way to help achieve this goal would be for all U.S. states to expand Medicaid coverage to include adults up to age 65 with incomes up to 138 percent of the federal poverty level. As of December 2023, 41 states and the District of Columbia have taken advantage of incentives established in the ACA and subsequent federal legislation to expand their Medicaid programs.[6] Numerous studies have documented the benefits, including for cancer. Individuals who live in states that have expanded their Medicaid programs are more likely to receive timely cancer screening and diagnosis and appropriate cancer treatment.[7] Medicaid expansion also is associated with improvement in cancer-related clinical outcomes and reductions in health disparities.[7] The Panel urges the nine states that have not yet expanded their Medicaid programs to do so in order to reduce the burden of cancer for the people in their states.

Having health insurance is critical but not sufficient to ensure access to cancer-related care. Patients and their providers should not need to worry that recommended treatments will not be covered by insurance. Payers should consistently use nationally recognized, continuously updated clinical practice guidelines to inform coverage decisions for cancer care and related tests and services (e.g., biomarkers, imaging).

Workforce

Building a Diverse Pipeline

A robust and diverse workforce is essential for the delivery of high-quality cancer care. The aging U.S. population, imbalances between new and retiring healthcare providers, and providers leaving their fields due to burnout or other factors have fueled concerns about the oncology workforce shortages for many years.[8,9] The Panel heard from several stakeholders that optimal cancer care and patient engagement are also undermined by a workforce that does not reflect the diversity of the United States.

The need for a diverse healthcare workforce has long been recognized as a strategy for addressing persistent health disparities in the United States. [10] Healthcare teams with members from different backgrounds can foster awareness of social and cultural factors that influence health, healthcare utilization, and interactions with providers. By supporting culturally competent care, diverse teams can build patient trust, increase patient satisfaction, and, as a result, deliver higher quality clinical care that will yield more equitable patient outcomes. An ideal oncology workforce would be able to relate to people of different backgrounds and identities—with respect to race, culture, language, geography, education, religion, politics, socioeconomic status, sexual/gender identity, and other factors—and collectively understand and address the sociocultural issues affecting their patients' health and healthcare.[11]

Diversity is also important to strengthen research teams and optimize the value of research (see *Investment in Research*). Hypothesis development, study design, and interpretation of results all are strengthened with the benefit from multiple perspectives. Furthermore, diverse teams increase the likelihood of diversity among participants in clinical studies,[12] a prerequisite for ensuring equitable progress against cancer. In addition to increasing comfort and trust among potential participants,[13] research team members representative of study populations can help ensure that research questions are aligned with community needs and enrich consideration of cultural factors.

Collaborative public and private investments are needed to attract, train, and support a strong workforce pipeline for both cancer research and cancer care. Career opportunities in research and healthcare—and in oncology in particular—should be promoted and supported across different populations and communities, with outreach beginning as early as possible. Efforts should focus not only on physicians and nurses, but also on the many other types of workers needed to deliver high-quality cancer care, including, but not limited to, allied health professionals, pharmacists, patient navigators and community health workers, and social workers.

> "
> Collaborative public and private investments are needed to attract, train, and support a strong workforce pipeline for both cancer research and cancer care.
> "

The Panel applauds the work of professional and advocacy organizations who are engaging students as early as elementary school and through college and early career stages (see *Appendix: Table of Activities Related to the National Cancer Plan*). NIH and NCI also have committed to developing a pool of scientists from diverse backgrounds and funded a number of initiatives to accomplish this.[14-16] Cross-sector partnerships in this area will increase returns on investment and ensure that lessons learned and best practices are widely shared and implemented. Biotech and pharmaceutical companies and healthcare systems should play a role in and financially support these efforts.

Extending the Reach of the Oncology Workforce

The uneven distribution of oncology professionals across the country is also a concern. More than two-thirds of rural U.S. counties have no oncologists,[17] and many other frontier and remote regions also

are underserved. Though distances to healthcare services may be shorter in more heavily populated cities and suburbs, many people in these areas also face significant challenges accessing cancer care. Strategies are needed to ensure that oncology care teams can reach all Americans, no matter where they live. During the COVID-19 pandemic, several policy changes enabled a rapid increase in the use of telehealth for all types of healthcare, including cancer. The Panel heard from multiple stakeholders that maintaining policies that facilitate telehealth services, including across state lines, would help the oncology workforce deliver high-quality care. The CMS extension of telehealth provisions through the end of 2024 is a step in the right direction. [18] **Congress should permanently change its telehealth policy to allow Medicare to cover nonbehavioral telehealth services**. The Biden-Harris Administration efforts to increase high-speed internet availability across the country—including the recent creation of the $42.45 billion Broadband Equity Access and Deployment program through the Infrastructure Investment and Jobs Act—will help American make use of telehealth.[19] The success of these efforts should be monitored to ensure that lack of internet access does not impede access to healthcare.

To optimize opportunities for telehealth, healthcare providers also must be able to provide services to patients across state lines. **To facilitate interstate telehealth, all states should participate in the Interstate Medical Licensure Compact**. For physicians in participating states, the Compact streamlines the process of obtaining licenses in states other than the one in which they primarily reside and practice. As of December 2023, the Compact includes 37 states, the District of Columbia, and Guam. Legislatures and governors in other states and territories should enact legislation allowing physicians in their states to participate in this service.

Community Engagement

To achieve the goal of more equitable cancer care and cancer control, healthcare systems and research institutions must do a better job engaging the people they serve. Effective community engagement

> " Effective community engagement helps providers understand and better meet the needs of their patients and supports better health outcomes for disadvantaged populations "

helps providers understand and better meet the needs of their patients and supports better health outcomes for disadvantaged populations.[20] With respect to research, community engagement can facilitate alignment of research questions to community priorities, support study designs that are acceptable to potential participants, increase participation of diverse populations, and improve acceptance of research results by the people they are intended to help.[21]

Patient engagement in healthcare and research is inextricably linked to trust. As the Panel heard from stakeholders, institutions must be *trustworthy* to build trust. This trust must be actively earned and maintained through relationships based on mutual respect and bidirectional communication. Effective community engagement can take many forms, such as forming a community advisory board to oversee a research program, hiring community health workers to help patients overcome barriers to care, establishing a telehealth program, or partnering with community organizations to do outreach. In cases where trust has been broken, additional investments in community engagement may be needed. The key is that engagement activities be guided by a genuine desire to understand and be responsive to the values, priorities, and needs of the community.

Healthcare organizations, research institutions, and individual providers and researchers should invest in and promote community engagement. This will require institutional leadership to provide financial support and foster a culture that prioritizes relationships with patients, community members, and community organizations. **Policies and sustainable funding are needed to incentivize and support community engagement**. The recent CMS

policy change that allows Medicare to pay for navigation services to help patients and their families navigate treatment for cancer and other serious illnesses is a significant step in the right direction. Navigation has been shown to help address disparities across the cancer continuum.[22] The Panel encourages private payers to follow CMS' lead in this area. Health systems and providers should use the Medicare payment for navigation to build bridges with their communities, potentially through partnering with community-based organizations and employing community health workers.

The requirement for NCI-designated cancer centers to demonstrate their outreach and engagement with populations in their catchment areas has also increased emphasis on community engagement. However, additional funding devoted to outreach and engagement is needed to ensure that these activities are robust and sustainable. Beyond the NCI Cancer Centers Program, research funding organizations should allow or even require grant budgets to include funds for community engagement.

Data Sharing and Integration

Research and clinical care data hold the key to future advances against cancer. These data—including genetic, molecular, and clinical data as well as data on social determinants of health—must be brought together and used to answer important questions about the best ways to prevent and treat cancer. Doing so will require continued efforts to promote data standardization and increase the interoperability of health information technology systems. Just as important, policies and incentives are needed to cultivate a culture of sharing among healthcare systems, academic research institutions, pharmaceutical companies, and others.

Conclusions/Future NCP Assessments/Call to Action

The Panel applauds NCI, HHS, and the Biden Administration for creating this conscientious, comprehensive plan. We urge all public and private stakeholders to join us in supporting this vital national effort. [More to be added]

The Panel welcomes input from the public via email (PresCancerPanel@mail.nih.gov) and social media (@PresCancerPanel). Tag social media posts with #NationalCancerPlan, #CancerMoonshot, and #Every1HasARole.

References

1. National Cancer Institute. About the RAS Initiative [Internet]. Bethesda (MD): NCI; 2022 Nov 7 [cited 2023 Dec 15]. Available from: https://www.cancer.gov/research/key-initiatives/ras/about

2. Frederick National Laboratory for Cancer Research. RAS Initiative [Internet]. Frederick (MD): National Cancer Institute; [cited 2023 Dec 15]. Available from: https://frederick.cancer.gov/initiatives/ras-initiative

3. Lowy DR. NCI Director's report. Presented at: 8th Virtual Joint Meeting of the Board of Scientific Advisors and the National Cancer Advisory Board; 2023 Nov 30; Virtual Meeting: National Cancer Institute. Available from: https://deainfo.nci.nih.gov/advisory/joint/1123/Lowy.pdf

4. Zhao J, Han X, Nogueira L, Fedewa SA, Jemal A, Halpern MT, et al. Health insurance status and cancer stage at diagnosis and survival in the United States. CA Cancer J Clin. 2022;72(6):542-60. [Epub 20220713]. Available from: https://www.ncbi.nlm.nih.gov/pubmed/35829644

5. Keisler-Starkey K, Bunch LN, Lindstrom RA. Health insurance coverage in the United States: 2022. Washington (DC): U.S. Census Bureau; 2023 Sep. Available from: https://www.census.gov/content/dam/Census/library/publications/2023/demo/p60-281.pdf

6. KFF. Status of state Medicaid expansion decisions: interactive map [Internet]. San Francisco (CA): KFF; [updated 2023 Dec 1; cited 2023 Dec 4]. Available from: https://www.kff.org/medicaid/issue-brief/status-of-state-medicaid-expansion-decisions-interactive-map/

7. Hotca A, Bloom JR, Runnels J, Salgado LR, Cherry DR, Hsieh K, et al. The impact of Medicaid expansion on patients with cancer in the United States: a review. Curr Oncol. 2023;30(7):6362-73. [Epub 20230702]. Available from: https://www.ncbi.nlm.nih.gov/pubmed/37504329

8. Institute of Medicine. Ensuring quality cancer care through the oncology workforce: sustaining care in the 21st century: workshop summary. Washington (DC): The National Academies Press; 2009. Available from: https://nap.nationalacademies.org/catalog/12613/ensuring-quality-cancer-care-through-the-oncology-workforce-sustaining-care

9. Elsevier. Clinician of the future 2023: elevating global voices in healthcare. Amsterdam (NL): Elsevier; 2023 Aug. Available from: https://www.elsevier.com/promotions/clinician-of-the-future-2023

10. Institute of Medicine. Unequal treatment: confronting racial and ethnic disparities in health care. Washington (DC): The National Academies Press; 2003. Available from: https://doi.org/10.17226/12875

11. LaVeist TA, Pierre G. Integrating the 3Ds--social determinants, health disparities, and health-care workforce diversity. Public Health Rep. 2014;129 Suppl 2(Suppl 2):9-14. Available from: https://www.ncbi.nlm.nih.gov/pubmed/24385659

12. Getz K, Florez M, Botto E, Ribeiro K, Goller G, Robinson L, et al. Global Investigative Site Personnel Diversity and Its Relationship with Study Participant Diversity. Ther Innov Regul Sci. 2022;56(5):777-84. [Epub 20220610]. Available from: https://www.ncbi.nlm.nih.gov/pubmed/35687265

13. Kraft SA, Cho MK, Gillespie K, Halley M, Varsava N, Ormond KE, et al. Beyond Consent: Building Trusting Relationships With Diverse Populations in Precision Medicine Research. Am J Bioeth. 2018;18(4):3-20. Available from: https://www.ncbi.nlm.nih.gov/pubmed/29621457

14. National Institutes of Health. NOT-OD-20-031: Notice of NIH's interest in diversity [Internet]. Bethesda (MD): NIH; 2019 Nov 22 [cited 2023 Dec 3]. Available from: https://grants.nih.gov/grants/guide/notice-files/NOT-OD-20-031.html

15. National Institutes of Health. UNITE [Internet]. Bethesda (MD): NIH; [updated 2023 May 23; cited 2023 Dec 4]. Available from: https://www.nih.gov/ending-structural-racism/unite

16. National Cancer Institute. Building a diverse workforce [Internet]. Bethesda (MD): NCI; [updated 2023 Sep 21; cited 2023 Dec 4]. Available from: https://www.cancer.gov/grants-training/training/idwb

17. American Society of Clinical Oncology. 2020 Snapshot: State of the Oncology Workforce in America. JCO Oncol Pract. 2021;17(1):30. [Epub 20200824]. Available from: https://www.ncbi.nlm.nih.gov/pubmed/32840423

18. Health Resources and Services Administration. Telehealth policy changes after the COVID-19 public health emergency [Internet]. [updated 2023 Aug 31; cited 2023 Dec 4]. Available from: https://telehealth.hhs.gov/providers/telehealth-policy/policy-changes-after-the-covid-19-public-health-emergency

19. The White House. Fact sheet: Biden-Harris Administration announces over $40 billion to connect everyone in America to affordable, reliable, high-speed internet [Press Release]. Washington (DC): The White House; 2023 June 26.

20. Cyril S, Smith BJ, Renzaho AM. Systematic review of empowerment measures in health promotion. Health Promot Int. 2016;31(4):809-26. [Epub 20150702]. Available from: https://www.ncbi.nlm.nih.gov/pubmed/26137970

21. Leader AE, Aplin AE. From the Community to the Bench and Back Again: The Value of Patient and Community Engagement in Cancer Research. Cancer Discov. 2021;11(9):2135-8. Available from: https://www.ncbi.nlm.nih.gov/pubmed/34479970

22. Dixit N, Rugo H, Burke NJ. Navigating a Path to Equity in Cancer Care: The Role of Patient Navigation. Am Soc Clin Oncol Educ Book. 2021;41:1-8. Available from: https://www.ncbi.nlm.nih.gov/pubmed/33830828

Appendix A: Meeting Participants

Stakeholder Organization	Representatives
American Association of Cancer Research	Margaret Foti, PhD, MD Philip Greenberg, MD, FAACR
American Cancer Society	Karen Knudsen, PhD, MBA
American Society for Radiation Oncology	Jeff Michalski, MD, MBA, FASTRO
American Society of Clinical Oncology	Clifford Hudis, MD, FASCO, FACP Lynn Schuchter, MD, FASCO
American Society of Preventive Oncology	Anita Kinney, PhD, RN, FAAN, FABMR
Association of Community Cancer Centers	Olalekan Ajayi, PharmD, MBA
CEO Roundtable on Cancer	William Louv, PhD David Reese, MD
Health Information and Management Systems Society	Anne Snowdon, PhD, MSc
National Comprehensive Cancer Network	Robert Carlson, MD Wui-Jin Koh, MD
National Hispanic Medical Association	Elena Rios, MD, MHPH, MACP
National Medical Association	Yolanda Lawson, MD, FACOG Edith Mitchell, MD, MACP, FFCP, FRCP
Oncology Nursing Society	Danya Garner, PhD, RN, NPD-BC, OCN, CCRN-K Brenda Nevidjon, MSN, RN, FAAN

Appendix B: Stakeholder Activities

In addition to convening a stakeholder meeting, the President's Cancer Panel invited broader input by asking the cancer community and the general public to submit information on programs, activities, and achievements relevant to the National Cancer Plan. The table below contains submissions from 29 organizations and individuals. To explore the breadth of the work, National Cancer Institute staff identified National Cancer Plan goals relevant to each activity.

Organization	Activity Name	Description	Goal							
			Prevent Cancer	Detect Cancers Early	Develop Effective Treatments	Eliminate Inequities	Deliver Optimal Care	Engage Every Person	Maximize Data Utility	Optimize the Workforce
Advocates for Universal DPD/DPYD Testing (AUDT)	Advocates for Universal DPD/DPYD Testing	AUDT encourages the National Comprehensive Cancer Network, the American Society of Clinical Oncology (ASCO), cancer centers, and FDA to change guidelines and drug labeling with the goal of making dihydropyrimidine dehydrogenase (DPD) testing the standard of care in the United States and raising awareness of the risk of severe toxicities without testing.			X	X	X			
Alliance for Clinical Trials in Oncology	Alliance Participant Engagement Portal - Pep Newsletter	The Alliance Participant Engagement Portal (PEP) provides innovative ways to keep clinical trial participants engaged at key touchpoints throughout a trial.						X		
American Association for the Advancement of Science (AACR)	Project GENIE	Project GENIE is an open-source, international, pancancer tumor registry of real-world clinico-genomic data assembled through data sharing among a growing international consortium of academic tertiary referral centers with the goals of improving clinical decisions and catalyzing clinical and translational research. The processes developed for the project could serve as a blueprint for engaging patients in a cancer-focused version of a true learning healthcare system.						X	X	
	SU2C	AACR is the scientific partner of Stand Up To Cancer (SU2C). With SU2C's Scientific Advisory Committee, AACR conducts rigorous competitive review processes to identify the best research proposals to recommend for funding, oversee grants administration, and provide expert review of research progress.			X		X			

Organization	Activity Name	Description	Goal							
			Prevent Cancer	Detect Cancers Early	Develop Effective Treatments	Eliminate Inequities	Deliver Optimal Care	Engage Every Person	Maximize Data Utility	Optimize the Workforce
	AACR Conferences and Task Forces	AACR brings together thousands of researchers from across the cancer research continuum to share scientific knowledge via many conferences per year, some broad and others more focused on a particular area of science. AACR also publishes research in its suite of peer-reviewed research publications.			X					
	AACR Cancer Disparities Progress Report Series	The AACR Cancer Disparities Progress Report Series aims to educate members of Congress, the public, and the scientific community about cancer disparities and the importance of medical research to the elimination of disparities; and to advocate for increased federal funding for health equity-focused research. This report highlights the serious public health challenges posed by cancer disparities and the recent progress made in addressing these inequities.				X				
American Cancer Society (ACS)	Clinical Trials Enabling Research Scholar	ACS created a Clinical Trials Enabling Research Scholar Grant to fund projects at the cusp of translation to the clinic. As a beta test of this mechanism, ACS collaborated with NIH to accept sub-projects of SPORE grant applications that scored well in review but were not funded.	X							
	Color Health Partnership	ACS's new partnership with Color Health is aimed at increasing access and adherence to cancer screening and prevention. ACS and Color are hoping to close the gap between coverage and access for 156 million Americans who receive health care through their employer or union by providing convenient, accessible, and comprehensive cancer prevention and screening solutions for the highest-burden cancers.	X							