Comparison of Cancer Burden and Nonprofit Organization Funding Reveals Disparities in Funding Across Cancer Types

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ABSTRACT

Background: Nonprofit organizations (NPOs) in oncology are vital for patient advocacy and funding research for rare cancers, young investigators, and innovative projects. However, some cancers may be underfunded relative to their burden. This study examined the alignment of cancer burden by histology with NPO funding for each histology. **Patients and Methods:** This nationwide, cross-sectional study conducted from October 2017 through February 2018 included all oncology NPOs with >\$5 million in annual revenue. Total revenue from NPOs supporting individual cancer types with the incidence, mortality, and person-years of life lost (PYLL) for each cancer type was compared using scatter plots and Pearson correlation coefficients. Correlation of expenditure types (eg, fundraising, patient education) with revenue was assessed using Pearson correlation coefficients. Effect of disease association with a stigmatized behavior (eg, lung cancer and smoking) was evaluated using descriptive statistics. **Results:** A total of 119 cancer-related NPOs were included, generating approximately \$6 billion in annual revenue in 2015. Cancers with the largest revenue were breast cancer (\$460 million; 33.2%), leukemia (\$201 million; 14.5%), pediatric cancers (\$177 million; 12.8%), and lymphoma (\$145 million; 10.5%). Breast cancer, leukemia, lymphoma, and pediatric cancers were all well funded compared with their incidence, mortality, and PYLL. Gastrointestinal (colorectal, pancreas, and hepatobiliary), gynecologic (ovarian, cervical, and endometrial), brain, and lung cancers were poorly funded in all 3 metrics. All cancers associated with a stigmatized behavior were poorly funded in at least 2 metrics. Increased spending on fundraising, administrative costs, patient education, and treatment was highly correlated with increased revenue (Pearson correlation coefficients all >0.92). **Conclusions:** NPO funding by cancer type is not proportionate with individual cancer burden on society. Disease stigma negatively impacts funding. A significant need exists to increase awareness and funding for many undersupported but common and highly lethal cancers.

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Background

Patient advocacy organizations (PAOs) are nonprofit organizations (NPOs) that work to combat a particular disease or group of diseases or support a certain patient population. These organizations and other cancer-related NPOs can be influential through political advocacy to shape health policy, fund medical research, accelerate regulatory approval of novel therapies, and expand insurance coverage for specialized diagnostics, drugs, or devices.^{1–3} According to the most recent *Giving USA* report, health-related NPOs received \$40.8 billion in contributions in 2018.⁴

NPOs in oncology are vital for advocacy, research, and supporting young investigators. They advocate to political leaders and legislatures regionally and nationally,¹ raise funds for cancer research in the basic and applied sciences and for clinical research, and make concerted efforts to support young, early-career investigators, such as the Stand Up To Cancer Innovative Research Grants program.

Although there has been much investigation into potential financial conflicts of interest from NPOs and PAOs accepting contributions from for-profit corporations,^{2,3,5,6} little is known about the distribution of funding for NPOs classified by the cancer type they support compared with the burden of each cancer type on society. It is possible that funding of NPOs increases proportionally with the incidence and number of deaths caused by the type of cancer those organizations support. It is also likely that other factors, such as public awareness, advertising, disease stigma, or political influences, can skew funding toward certain malignancies.

Some data show that individual donors are largely unaware of which medical causes are well supported and which are underfunded, but if informed of these disparities, the public can attempt to compensate for them.⁷ A study in the United Kingdom that surveyed 401 members of the general population found that respondents

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grossly overestimated British government funding for cancer research compared with other medical research funding. After respondents were made aware of this or when asked about hypothetical cuts in governmental cancer research funding, they stated that they would increase donations to cancer research by 18% to compensate.⁸

Our study compared the distribution of NPO funding across cancer types versus their respective burdens on society and explored factors that may influence which cancers receive more public support.

Patients and Methods

Sample

We used a purposive method to identify the largest cancer-related NPOs in terms of annual revenue. The sample was constructed using 2 unique methods, both using the GuideStar database of 501(c)(3) organizations. Only organizations with $\geq$ \$5 million of annual revenue were included to focus the sample on organizations large enough to have a national impact on the broader oncology community.

First, organizations with the health-related National Taxonomy of Exempt Entities codes G (“Diseases, Disorders, Medical Disciplines”) and H (“Medical Research”) were selected based on the 2017 coding system. Second, the GuideStar database was queried with each of 168 predetermined search terms of cancer-related words or phrases (eg, “breast cancer” or “colon cancer”). The list of search terms is shown in supplemental eTable 1 (available with this article at JNCCN.org). We excluded non-cancer-related organizations and organizations that primarily deliver medical care (eg, acute care hospitals, outpatient clinics) based on a review of each organization’s annual report, website, or mission statement. Charitable or foundation branches of acute care hospitals or cancer centers were included if their primary function is as a charity or PAO.

Data Collection

From October 2017 through February 2018, we collected and analyzed the Form 990 tax records, annual reports, and websites of each organization included in the study. Annual reports were obtained from each organization’s website when available, and Form 990 reports were obtained from the organization’s website or the GuideStar database, whichever was most recent. Data from July 2015 through December 2016 were included because these were the most current at the time of analysis. Annual revenue was collected from Part I, line 12 of the Form 990 tax records, and expenditures were collected from the annual report or Form 990. Expenditures were classified into 1 of 9 categories: patient support (eg, support groups, paying for transportation), patient

education, research, prevention, treatment (eg, copay assistance for medications), professional education (eg, professional society conferences), policy advocacy (lobbying), administrative costs, and fundraising.

To assess disease burden on society by cancer type, we collected data on annual incidence, mortality, and person-years of life lost (PYLL) for each cancer type in 2017 (the year of study analysis) from the SEER database.⁹ The pediatric cancer category was defined as cancers occurring in patients aged 0 to 18 years (most commonly leukemias and brain tumors). PYLL is the difference between the actual age of death from a disease and the expected age of death for an individual (eg, a person who dies of cancer at age 35 years has more PYLL than someone who dies of cancer at age 75 years).¹⁰

Statistical Analysis

Annual revenue by cancer type was calculated using descriptive statistics. Comparison of total annual revenue by cancer type versus cancer type-specific incidence, mortality, and PYLL was performed using scatter plots. Correlation between revenue and cancer type-specific incidence, mortality, and PYLL was assessed with Pearson product-moment correlation coefficients. We assessed for correlation between increased allocation to each of the 9 expenditure categories and total annual revenue using the Pearson product-moment correlation coefficient.

We also assessed the effect of cancer association with a high-risk behavior or stigma on NPO funding. Stigma was defined as the association between a personal choice to participate in a cancer-causing behavior and a particular cancer. An association was considered strong enough for study inclusion if the hazard ratio between that behavior and an individual cancer was $\geq$ 2.0 based on review of the epidemiologic literature.^{11–15} Included stigmatized behaviors were smoking, alcohol, intravenous drug use, sex, and tanning beds. We then compared the amount of revenue allocated to stigmatized cancers versus nonstigmatized cancers using descriptive statistics.

Results

The 2 search methods yielded 172 cancer-related NPOs, 53 of which were excluded because they were primarily medical care delivery organizations (eg, acute care hospitals or clinics), yielding 119 cancer-related NPOs included for analysis. The complete list of organizations is shown in supplemental eAppendix 1; 4 organizations supported $\geq$ 2 cancer types and were counted toward each cancer type they supported.

Cancer-related NPOs generated \$5.98 billion in annual revenue in 2015 through 2016. Most of the revenue, \$4.59 billion (76.8%), was generated by the 59 (50%)

organizations that support cancer in general with no focus on one disease (eg, American Cancer Society [ACS]). Table 1 shows the complete breakdown of number of NPOs and amount of annual revenue supporting each cancer type.

Among cancer type–specific NPOs, the cancers with the largest number of organizations were breast cancer (13; 22%), pediatric cancers (13; 22%), leukemia (4; 7%), and lung cancer (4; 7%). The cancer types with the largest total annual revenue were breast cancer (\$460 million; 33.2%), leukemia (\$201 million; 14.5%), pediatric cancers (\$177 million; 12.8%), and lymphoma (\$145 million; 10.5%). Cancer types with only 1 NPO supporting them were neuroendocrine, nonmelanoma skin, liver and bile duct, cervical, and endometrial cancers; myelodysplastic syndromes (MDS); and sarcoma. Cancers with the lowest total annual revenue were sarcoma (\$5.1 million; 0.4%), endometrial cancer (\$5.4 million; 0.4%), cervical cancer (\$5.4 million; 0.4%), MDS (\$5.6 million; 0.4%), and liver and bile duct cancers (\$5.8 million; 0.4%). Notably, there were no NPOs that had at least \$5 million in annual revenue supporting kidney, bladder, gastric, or esophageal cancers.

The 2017 SEER database statistics for annual incidence, mortality, and PYLL for each cancer type that were used in this analysis are shown in supplemental eTable 2.

Scatter plots comparing the total annual revenue per cancer type with the annual incidence, number of deaths, and PYLL are shown in Figure 1. Comparison of annual revenue with incidence (Figure 1A) showed that breast cancer, leukemia, lymphoma, pediatric cancers, and neuroendocrine cancers were well funded in proportion to their incidences. Multiple myeloma appeared to be proportionally funded, whereas gastrointestinal cancers (colorectal, pancreatic, and liver and bile duct), gynecologic cancers (ovarian, endometrial, and cervical), lung cancer, prostate cancer, melanoma, MDS, sarcoma, and brain cancers were all poorly funded in proportion to their incidences. A consistent pattern emerged when comparing annual revenue with mortality (Figure 1B) and PYLL (Figure 1C), which was largely in line with the comparison between annual revenue and incidence. Breast cancer, leukemia, lymphoma, and pediatric cancers were well funded in proportion to their annual number of deaths and PYLL. All others, including gastrointestinal, gynecologic, lung, prostate, and brain cancers and melanoma, and multiple myeloma, were poorly funded in proportion to their annual number of deaths and PYLL.

The scatter plots in general showed little correlation between annual incidence, mortality, or PYLL with amount of funding for NPOs of a particular cancer type. The Pearson product-moment correlation coefficients between annual revenue and annual incidence, mortality,

Table 1. Characteristics of Nonprofit Organizations

Cancer Type	n (%) (N=119)	Revenue (%) (N=\$6 billion)
All types	59 (50.0)	\$4.6 billion (76.8)
Breast	13 (11.0)	\$460 million (7.7)
Pediatric	13 (11.0)	\$177 million (3.0)
Leukemia	4 (3.4)	\$201 million (3.4)
Lung	4 (3.4)	\$92 million (1.5)
Prostate	3 (2.5)	\$74 million (1.2)
Ovarian	3 (2.5)	\$23 million (0.4)
Brain	3 (2.5)	\$20 million (0.3)
Lymphoma	2 (1.7)	\$145 million (2.4)
Pancreatic	2 (1.7)	\$58 million (1.0)
Multiple myeloma	2 (1.7)	\$51 million (0.9)
Colorectal	2 (1.7)	\$18 million (0.3)
Melanoma	2 (1.7)	\$14 million (0.2)
Neuroendocrine	1 (0.8)	\$17 million (0.3)
Nonmelanoma skin	1 (0.8)	\$7 million (0.1)
Liver and bile duct	1 (0.8)	\$5.8 million (0.1)
Myelodysplastic syndromes	1 (0.8)	\$5.6 million (0.1)
Cervical	1 (0.8)	\$5.4 million (0.1)
Endometrial	1 (0.8)	\$5.4 million (0.1)
Sarcoma	1 (0.8)	\$5.1 million (0.1)
Annual Revenue (millions, \$)		n (%)
5.0–24.9		96 (71)
25.0–49.9		19 (14)
50.0–74.9		3 (2)
75.0–99.9		6 (4)
100.0–124.9		2 (1)
125.0–149.9		3 (2)
150.0–174.9		1 (1)
175.0–199.9		0 (0)
200.0–249.9		0 (0)
250.0–299.9		1 (1)
300.0–399.9		2 (1)
400.0–499.9		0 (0)
500.0–749.9		1 (1)
750.0–999.9		2 (1)
≥1,000.0		0 (0)

and PYLL were 0.61, 0.16, and 0.16, respectively. These indicate that there may be a weak correlation between annual revenue and cancer type–specific incidence, but there is essentially no correlation between annual revenue and cancer type–specific mortality or PYLL.

Analysis for correlation of different spending priorities on annual revenue showed that increased spending

Figure 1. Scatter plots using logarithmic scales for annual revenue by cancer type versus annual (A) incidence, (B) mortality, and (C) PYLL. Logarithmic trendlines and R^2 values are displayed in each panel.

Abbreviations: MDS, myelodysplastic syndromes; MM, multiple myeloma; PYLL, person-years of life lost.

on fundraising and administrative costs was the most highly correlated with higher annual revenue, with Pearson correlation coefficients of 0.99 and 0.97, respectively. In addition, 4 of the top 5 histologies in terms of spending on fundraising were also in the top 5 for annual revenue. Conversely, 4 of the bottom 5 histologies in terms of spending on fundraising were also in the lowest 5 for annual revenue. Increased spending on research funding, patient education, and patient treatment was also highly correlated with higher annual revenue, with Pearson correlation coefficients of 0.94, 0.93, and 0.93,

respectively. Spending on professional education such as physician/researcher conferences, or policy advocacy such as political lobbying was poorly correlated with annual revenue, with Pearson correlation coefficients of 0.27 and 0.06, respectively. A full listing of Pearson correlation coefficients between annual revenue and each of the 9 expenditure categories is shown in Table 2.

Evaluation of the literature for cancers strongly associated with high-risk, stigmatized behaviors identified 7 malignancies: lung (smoking), head and neck (smoking, alcohol), bladder (smoking), esophageal (smoking, alcohol), liver (alcohol, intravenous drug use), cervical (sex), and nonmelanoma skin cancers (tanning beds).^{11–15} All 7 were poorly funded in at least one epidemiologic metric, and all but skin cancer were poorly funded in all 3 metrics (incidence, mortality, and PYLL). Conversely, 14 malignancies had no strong association with a stigmatized behavior: leukemia, lymphoma, multiple myeloma, sarcoma, melanoma, and breast, pediatric, neuroendocrine, colorectal, pancreas, prostate, ovarian, endometrial, and brain cancers.⁸ The 4 cancer types that were well funded across all 3 metrics (breast cancer, leukemia, lymphoma, and pediatric cancers) all fell into this category. Neuroendocrine cancers were well funded compared with their incidence and were not evaluated for mortality or PYLL because these data are not known.

Discussion

It is clear that with nearly \$6 billion in annual revenue, cancer-related NPOs have an important role in funding medical research, supporting and educating patients and their families, and influencing health policy. This figure also demonstrates how deeply invested society is in cancer research and advocacy. However, our data show that this investment is not equitable across all cancer types and that the disease burden by cancer type does not correlate with the amount of NPO funding for a particular cancer. There is a weak association between increased incidence of a particular cancer type and funding for NPOs supporting that cancer, but essentially no correlation between mortality or PYLL and NPO funding. Many common or highly lethal diseases, including lung, colorectal, pancreatic, ovarian, and endometrial cancers, are underfunded relative to their burdens on society. Underfunding may have negative downstream effects on research, novel drug development, and number of FDA drug approvals for poorly funded cancers.

Our data show that increased spending on fundraising, administrative costs, and patient education to inform and energize the public about a cause correlates with increased revenue. Whether this is because

Table 2. Correlation Between Area of Expenditure and Annual Revenue

Area of Expenditure	Pearson Correlation Coefficient
Fundraising	0.99
Administrative costs	0.97
Research	0.94
Patient education	0.93
Patient treatment	0.93
Prevention	0.82
Patient support	0.54
Professional education	0.27
Policy advocacy	0.06

organizations with higher revenue can afford to spend more on these efforts or because increased fundraising and patient education spending leads to more revenue is unknown.

Individual donors are motivated by several factors when they choose which causes to support. Association with high-risk behaviors, such as smoking or alcohol abuse, seems to be an important factor leading to decreased funding for stigmatized cancers. However, many common or deadly cancers with no association with a stigmatized behavior were still poorly funded according to our findings, indicating that there are other relevant factors. Many donors choose a cause they are affected by, either personally or through family or friends.^{1,8} Marketing and social media campaigns, such as the pink ribbon representing breast cancer awareness, can increase overall public awareness of a disease and thereby increase donations.¹⁶ Diseases that are common but with indolent courses or relatively low mortality rates also have more survivors who can later become advocates for the cause and attract more donors.

The greatest limitation of this study is that most charitable dollars, nearly \$4.6 billion, go to NPOs that support all cancers, and it is unknown which diseases receive this money and in what proportion. These organizations may increase support for poorly funded causes (“crowding out”), build on already well-funded causes (“crowding in”), or act independently.⁸ This analysis also does not account for the NCI’s funding distribution across cancer subtypes, which represents a large source of research dollars. However, a 2012 study

that examined NCI funding distribution compared with cancer burden showed that breast, prostate, and brain cancers and leukemia were well funded, whereas colorectal, pancreatic, liver and bile duct, endometrial, and bladder cancers were poorly funded.¹⁷ Based on these data, it is unlikely that NCI funding would offset the NPO funding pattern illustrated in our study. Additional data from the National Cancer Research Institute in the United Kingdom showed a pattern of disproportionate funding across cancer subtypes compared with their societal burden similar to what our study showed for US NPOs.^{18,19}

Conclusions

The goal of our study was not to divert funding away from any disease but rather to educate the public and augment charitable funding for diseases that do not receive proportionate support. Well-funded NPOs should be applauded for their successes and could collaborate with other organizations to improve funding. No one entity can fully support research and patient advocacy. Multiple different groups from government, industry, academic institutions, and philanthropic organizations are necessary. These data could help inform the funding allocations of large, general cancer NPOs and governmental entities such as ACS or the NCI and inform individual donors and grant-makers.

We hope these findings stimulate further discussion and research to explore the granular aspects of NPO funding, enabling stakeholders to make evidence-based decisions for optimal allocation.

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eTable 1: List of Cancer-Related Search Terms

eTable 2: Cancer Burden by Cancer Type in 2017

eAppendix 1: List of Included NPOs and PAOs

eTable 1. List of Cancer-Related Search Terms

Cancer	Cure	Tongue cancer	Peritoneum
Blood cancer	Small cell	Small bowel cancer	Peritoneal
Tumor	Unknown primary	Small intestine cancer	Chondrosarcoma
Oncology	Urothelial cancer	Small intestinal cancer	Parotid gland
Carcinoma	Transitional cell	Large intestine cancer	Salivary gland
Breast	Ureter cancer	Large bowel cancer	Neurologic cancer
Lung	Ureteral cancer	Large intestinal cancer	Retina
Prostate	Urethra cancer	Vagina	Testis
Bladder	Urethral cancer	Fallopian tube	Testis cancer
Brain	Vaginal cancer	Biliary	Testicle
Brain tumor	Waldenström	Cutaneous	Adrenal
Glioma	Waldenström's	Myeloid	Teratoma
Glioblastoma	Wilms	Lymphocyte	Basal cell
Throat	Angiosarcoma	Lymphoid	Embryonal
Oral cancer	Squamous	Astrocytoma	Germ cell
Esophagus	Esophageal	Soft tissue	Intraocular
Stomach	Bile duct	Bronchus cancer	Ependymoma
Gastric	Gallbladder	Bronchial cancer	Stromal
Pancreas	Cholangiocarcinoma	Pulmonary	GIST
Pancreatic	Liver	Eye cancer	Uvea
Colon	Hepatocellular	Ocular	Uveal
Rectal	Marrow	Tonsil	Nerve sheath
Sarcoma	Kaposi	Ewing	Ewing's
Kidney	Renal cell	Kaposi's	Heart tumor
Cervical	Penile	Testicular	Islet cell tumor
Ovarian	Penis	Ductal	Lip cancer
Leukemia	Sezary	Mycosis	Merkel cell
Lymphoma	Hodgkin	Non-Hodgkin	Plasma cell
Myeloma	Hodgkin's	Non-Hodgkin's	Nasal
Melanoma	Skin cancer	Synovial	Nasopharyngeal
Skin	Rhabdomyosarcoma	Retinoblastoma	Paraganglioma
Bone cancer	Osteosarcoma	Spine cancer	Spinal cancer
Pediatric cancer	Medulloblastoma	Spine tumor	Spinal tumor
Children	Neuroblastoma	Liposarcoma	Parathyroid
Neuroendocrine	Carcinoid	Leiomyosarcoma	Pheochromocytoma
Colorectal	Mouth cancer	Cervix	Pituitary
Ampullary cancer	Vulvar cancer	Ovary	Oropharyngeal cancer
Uterine cancer	Endometrial cancer	Myelodysplastic	Thyroid
Anal	Anus	Myelodysplasia	Thymoma
Head and neck	Mesothelioma	Myeloproliferative	Neoplasm
Laryngeal	Larynx	Polycythemia	Thrombocytosis
Pharyngeal	Pharynx	Cord blood	Adenocarcinoma

Abbreviation: GIST, gastrointestinal stromal tumor.

eTable 2. Cancer Burden by Cancer Type in 2017			
Type	Incidence	Deaths	PYLL
Brain	23,800	16,700	336,000
Breast	255,180	41,070	773,000
Cervical	12,820	4,210	112,000
Colorectal	135,430	50,260	800,000
Endometrial	61,380	10,920	163,000
Leukemia	62,130	24,500	368,000
Liver and bile duct	52,450	32,750	415,000
Lymphoma	80,500	21,210	305,000
Lung	222,500	155,870	2,372,000
Myelodysplastic syndromes	21,338	NA	NA
Melanoma	87,110	9,730	161,000
Multiple myeloma	30,280	12,590	160,000
Neuroendocrine	12,000	NA	NA
Ovarian	22,440	14,080	250,000
Pancreatic	53,670	43,090	583,000
Pediatric	15,270	1,790	92,000
Prostate	161,360	26,730	274,000
Sarcoma	15,650	6,540	NA
Nonmelanoma skin	8,250	3,860	NA

Abbreviations: NA, not available; PYLL, person-years of life lost.

eAppendix 1: List of Included NPOs and PAOs

All Cancers		
Alliance for Clinical Trials in Oncology Foundation	Commonwealth Foundation for Cancer Research Foundation	NRG Oncology Foundation
American Association for Cancer Research (AACR)/AACR Foundation	Conquer Cancer Foundation of ASCO	Oncology Nursing Society
American Cancer Society (ACS)/ACS Cancer Action Network/ACS Products/ACS of Puerto Rico	Dolphins Cycling Challenge	Pan Massachusetts Challenge Trust
American Institute for Cancer Research	Don't Ever Give Up/The V Foundation	Parker Institute for Cancer Immunotherapy
American Society for Radiation Oncology	ECOG-ACRIN Medical Research Foundation	Patient Access Network Foundation
ASCO	H. Lee Moffitt Cancer Center and Research Institute Foundation/H. Lee Moffitt Cancer Center and Research Institute Lifetime Cancer Screening Center	Pedal the Cause
Bay Area Tumor Institute	Health Research Incorporated	Personal Care Products Council Foundation
Beckman Research Institute of the City of Hope	The Hope Foundation	Prevent Cancer Foundation
Biomed Valley Corporation	Huntsman Cancer Foundation	Rofeh Cholim Cancer Society
Camp Kesem National	Institute for Cancer Research	Roswell Park Alliance Foundation
Canadian Cancer Society	Israel Cancer Research Fund	RTOG Foundation
Cancer Care Co-Payment Assistance Foundation	John Wayne Cancer Institute	Sanford Burnham Prebys Medical Discovery Institute
Cancer Care Incorporated	Jonsson Cancer Center Foundation—UCLA	Society of Surgical Oncology
Cancer Prevention Institute of California	The Livestrong Foundation	Translation Research in Oncology US
Cancer Research and Biostatistics	Louisiana Cancer Research Center of LSU Health Sciences Center in New Orleans	Union for International Cancer Control
Cancer Research Fund of the Damon Runyon—Walter Winchell Foundation	Ludwig Institute for Cancer Research (LICR)/LICR Fund	United Cancer Support Foundation
Cancer Research Institute	Mary Crowley Medical Research Center	University of Tennessee West Institute for Cancer Research
Cancer Support Community	NCCN	UT Southwestern Moncrief Cancer Institute
Chronic Disease Fund	National Foundation for Cancer Research	Van Andel Research Institute
Coalition of Cancer Cooperative Groups		Walker Cancer Research Institute
		Wistar Institute of Anatomy & Biology

(continued on next page)

Abbreviations: NPO, nonprofit organization; PAO, patient advocacy organization.

eAppendix 1: List of Included NPOs and PAOs (cont.)

Brain Cancer	Leukemia	Neuroendocrine Cancers
American Brain Tumor Association	Be the Match Foundation	Neuroendocrine Tumor Research Foundation
Ben and Catherine Ivy Foundation	DKMS	
National Brain Tumor Society	Gift of Life Marrow Registry	
	The Leukemia & Lymphoma Society	Ovarian Cancer
Breast Cancer		The GOG Foundation
Avon Products Foundation	Liver and Bile Duct Cancers	National Ovarian Cancer Coalition
Breast Cancer Charities of America	Baruch S. Blumberg Institute	Ovarian Cancer Research Fund Alliance
Breast Cancer Outreach Foundation		
Breast Cancer Research Foundation	Lymphoma	Pancreatic Cancer
The Breast Cancer Society	The Leukemia & Lymphoma Society	Marc Lustgarten Pancreatic Cancer Foundation
Community Charity Advancement Incorporated	Lymphoma Research Foundation	Pancreatic Cancer Action Network
Living Beyond Breast Cancer		
National Breast Cancer Foundation	Lung Cancer	Pediatric Cancers
NSABP Foundation	American Lung Association	Alex's Lemonade Stand Foundation
Quantum Leap Healthcare Collaborative	Bonnie J. Addario Lung Cancer Foundation	Alliance for Childhood Diseases
The Rose	International Association for the Study of Lung Cancer	Children's Cancer Recovery Foundation
The Susan G. Komen Breast Cancer Foundation	LUNGevity Foundation	Children's Cancer Research Fund
Windber Research Institute		Children's Oncology Group Foundation
	Myelodysplastic Syndromes	Children's Tumor Foundation
Cervical Cancer	Aplastic Anemia and MDS International Foundation	Cure Childhood Cancer
The GOG Foundation		CureSearch for Children's Cancer
	Melanoma	Hyundai Hope on Wheels
Colorectal Cancer	Melanoma Research Alliance	The National Children's Cancer Society
Colon Cancer Alliance	Melanoma Research Foundation	Pediatric Brain Tumor Foundation of the United States
NSABP Foundation		St. Baldrick's Foundation
	Multiple Myeloma	Valerie Fund
Endometrial Cancer	International Myeloma Foundation	
The GOG Foundation	Multiple Myeloma Research Foundation	Skin Cancer
		The Skin Cancer Foundation
Prostate Cancer	Sarcoma	
Movember Foundation	SARC	
Prostate Cancer Foundation		
Zero—The End of Prostate Cancer		

Abbreviations: NPO, nonprofit organization; PAO, patient advocacy organization.