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A preliminary study of the rate of hospitals and satellite clinics worldwide for top US cancer centers

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ABSTRACT

Introduction: Healthcare is a globalized endeavor. With an increasing number of overseas collaborations being announced as profit-driven business structures, we sought to investigate the prevalence of the top-ranked United States (US) cancer hospitals investing in overseas hospitals.
Method: We conducted a web search of publicly available information to determine the frequency in which US hospitals with top-ranked cancer centers expand into offshore markets.
Results: Of the 53 offshore entities identified, 17 (32 %) are in China. Other tops locations include Italy (9%), United Arab Emirates (8%), and Saudi Arabia (8%).
Discussion: Our findings show many international US-partnered clinics are located in countries designated as either high-income or upper-middle-income economies. Further research is needed to understand the full scope of US hospitals abroad and the impact it may have on the global cancer care landscape.
Policy summary: The business-model for globalized US healthcare should be investigated for implications to local and foreign cancer care.

1. Introduction

Many healthcare institutions engage in global collaborations for knowledge-sharing and medical advancement; additionally, US hospitals are now taking on a more profit-driven business model and setting up clinics abroad to increase revenue, subsidize domestic cost, and expand their global brand. [1] US hospitals see global expansion as lucrative, but a larger geographical strategic plan for their ventures requires major commitment [2].

Lack of public disclosure and differing partnership structures makes a systematic review of the international oncology healthcare market challenging, and to-date none have been completed.

We aimed to provide an initial systematic search for medical services offered overseas by the top cancer hospitals.

2. Methods

For the top 50 cancer hospitals in the 2020–2021 U.S. News & World ranking, we searched the web for overseas hospitals by looking at company websites, press releases, annual reports, financial statements, US trade reports, and news articles. Key search terms queried: hospital name + "international" + "affiliates". "Affiliates" was interchanged with "development", "business development", "partnership", "hospitals", "contracts", "patient services", "agreement", "greenfield development", and "brownfield development".

Due to consolidation of hospitals into larger multi-center healthcare systems (N = 48), a cancer center was searched and analyzed alongside its parent organization and relevant subsidiaries, which were identified through 990 tax records under "Related Organizations and Unrelated Partnerships".

All international activity related to the outflow of clinical services were recorded. The search was then narrowed to the business development, operations, or management of hospitals abroad. We excluded educational exchanges, research collaborations, clinical trials, study abroad programs, global health initiatives, non-clinical university activities, and short-term or programmatic consulting services. We coded business development into two categories: "ownership" (having ownership of a clinical facility by the US hospital in a non-US territory) and "long-term agreement" (the full details of the business agreement were not disclosed but is noted as providing one or more of the following: "operations", "management", "facility development", "oversight", or "strategic governance").

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For each overseas entity we collected data on country, year of announcement (either of partnership or clinic opening), level of oncology involvement, and qualitative summaries on country partnership details.

3. Results

Of the 239 international business activities, 53 were an overseas facility owned or in long-term agreement with a US health system, 17 (32 %; Fig. 1) of which were in China, 5 (9%) in Italy, 4 (8%) in United Arab Emirates and 4 (8%) in Saudi Arabia. Ireland, UK, and Qatar each had 3 (6%) US hospitals within their borders while India and Panama each had 2 (4%). 10 countries each have 1 (2%) US-based hospital. The 8 facilities in Italy and Ireland belong to one US hospital. All facilities in China were defined as being in a long-term agreement with a US hospital. University of Pittsburgh Medical Center had 11 (Table 1) clinics overseas.

Of the 48 US hospitals searched, 22 (46 %) had either owned or were in long-term agreement with a hospital overseas. 9 (19 %) had more than one clinic abroad. 13 (27 %) were in a long-term agreement and 9 (19 %) either owned or jointly owned a facility. 16 (73 %) of the hospitals with an overseas clinical entity were in the top 20 of the 50 ranked U.S. News & World cancer hospitals.

4. Discussion

We found 53 overseas clinical facilities with large investments from a US top-ranked cancer hospital. About one-third (32 %) are located in China. Other locations with a prevalent number of US hospital entities include areas in Europe and the Middle East. More (27 %) are structured as long-term agreements rather than direct ownership (19 %). Despite China being the most prevalent location for US international facilities, no hospital in China is directly or jointly owned by a US hospital. Despite this limitation, healthcare estimates with foreign ties in China are estimated at $1.7 billion between 2006 and 2020. [3]

As the healthcare market expands, top locations for offshore investments by US hospitals are in countries designated by the World Bank as either high-income or upper-middle-income economies. [4] This is congruent to economic theories which show the high expense of entering foreign healthcare marketplaces. Unlike other sectors prime for globalization, health systems require specific criteria for international expansion [3]. A high-skilled labor force, cultural cohesion, and regulatory standards are just some of the expensive challenges seen in developing clinics abroad [3]. These exclusive criteria provide an advantage to countries which have the resources to accommodate and justify the investment from US hospitals. Due to this model, it can be expected that globalization of the US healthcare industry will be centered in countries with high-income or upper-middle-income economies.

It should be noted that analysis also points to trade-offs in international development for US hospitals. Although revenue streams from foreign markets can potentially help subsidize US healthcare costs, expending resources outside local markets could “reduce efficiencies and expertise” for the US health system. [3] A question remains if the cost of such reductions can be offset through the gains in revenue from the offshore venture. Knowledge-sharing and “lower costs via scale” are known benefits for foreign countries willing to host US hospitals [3]. However, evidence shows diminished return for local economies during the initial phases and an increased reliance on foreign investors [3].

In prioritizing values for the international marketplace, the outflow of services from the US should be further investigated for its impact on the global healthcare market, and the treatment of cancer in the US and abroad.

Publicly available information limited the comprehensiveness of the international business activity and is not a holistic view of the global healthcare market by these institutions. Further research is needed to understand the full scope of US hospitals abroad and the impact it may have on the cancer care landscape.

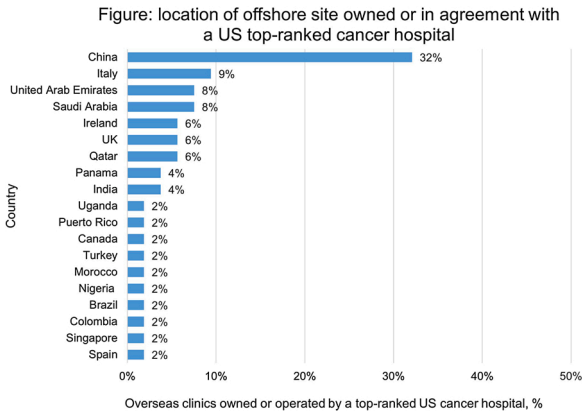

Fig. 1. Location of offshore site owned or in agreement with a US top-ranked cancer hospital.

Table 1
5 US top-ranked cancer hospital with highest count of offshore clinics.

US hospital	Number of offshore clinics owned or operated
University of Pittsburgh Medical Center (UPMC)	11
Mayo Clinic	7
Johns Hopkins	5
Cleveland Clinic	4
Houston Methodist Hospital	4

Data availability

Data will be made available on request.

All foci coordinates, activation probability maps, in addition to the supplemental information will be available on ANIMA: a data-sharing initiative for neuro-imaging meta-analyses: anima.fz-juelich.de.

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Declaration of Competing Interest

Dr. Prasad reports royalties from Johns Hopkins Press and Medscape, consulting fees from UnitedHealthcare, speaking fees from Evicore, contributions as the host for the Plenary Session podcast.

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