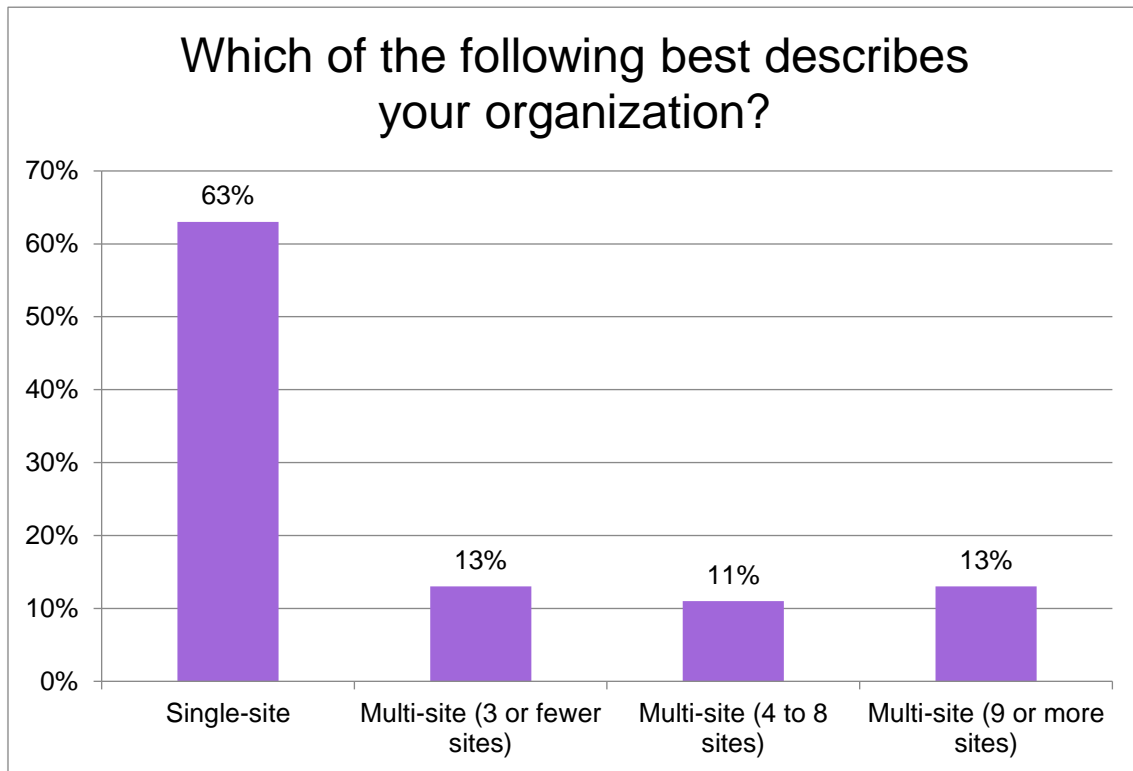


TECHNOLOGY SPENDING

ZIEGLER CFO HOTLINESM

In December 2020, a *Ziegler CFO HotlineSM* survey gathered feedback on technology spending among senior living organizations. This particular study, conducted with input from LeadingAge CAST, revisits polls from 2018, 2016, 2014 and 2012 devoted to the same topic.

Roughly 150 organizations participated in this year’s survey. The survey was initially forwarded to CFOs and finance contacts, but was subsequently forwarded to a number of the organization’s Chief Technology/Information Officers for completion. About 6 out of 10 respondents were single-site organizations and the remaining 4 out of 10 represented multi-site provider organizations.



The initial section of the survey listed a variety of different technologies that are applicable to senior living providers and related healthcare organizations. Respondents were asked to identify which of the technologies they invested in over the past 12 months, as well as whether they planned to invest in them within the next 12 months.

The table below shows the top five technology investments that senior living providers made across the past year. A comparison is also given to the top five areas mentioned in the 2018 survey. The top categories of investment show a clear connection to the COVID-19 pandemic.

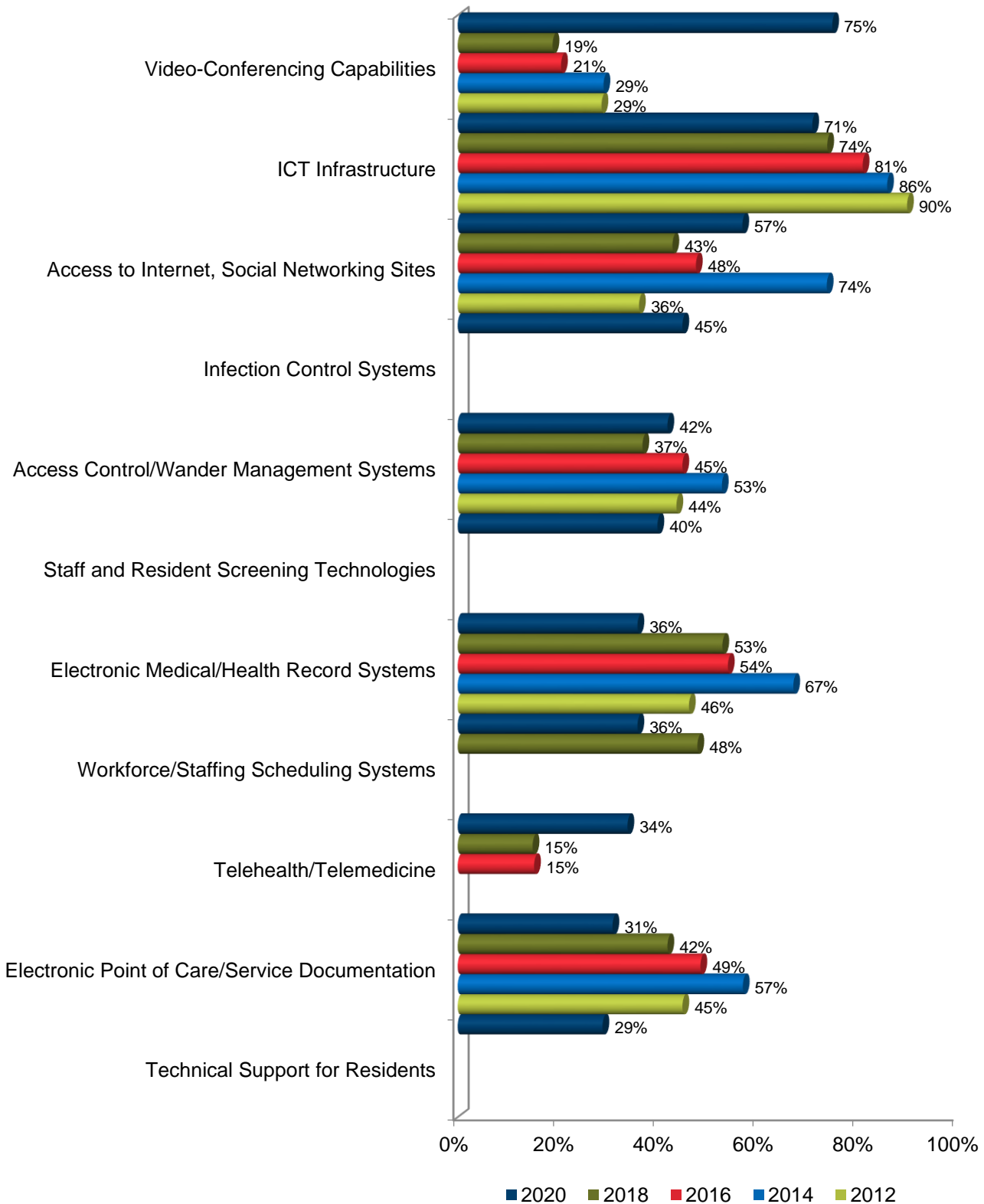
Top Five in 2020	Top Five in 2018
Video Conferencing Capabilities (SKYPE, etc.) for Residents/Clients (75%)	ICT Infrastructure (high-speed internet connectivity, wired/wireless) (74%)
ICT Infrastructure (high-speed internet connectivity, wired/wireless) (71%)	Electronic Health/Medical Records (53.0%)
Resident/Client access to the Internet and Social Networking Sites (57%)	Workforce/Staffing Scheduling Systems (48.0%)
Infection Control Systems (including Air Purification, Disinfection, and Hand Hygiene Monitoring Technologies) (45%)	Resident/Client Access to the Internet and Social Networking Sites (43.0%)
Access Control/Wander Management Systems (42%)	Electronic Point of Care/Point of Service Documentation (42.0%)

Organizations were least likely to have invested in Medication Management Technologies (11%), Automatic Fall Detectors (8%), and Shared Care Planning Tools (6%).

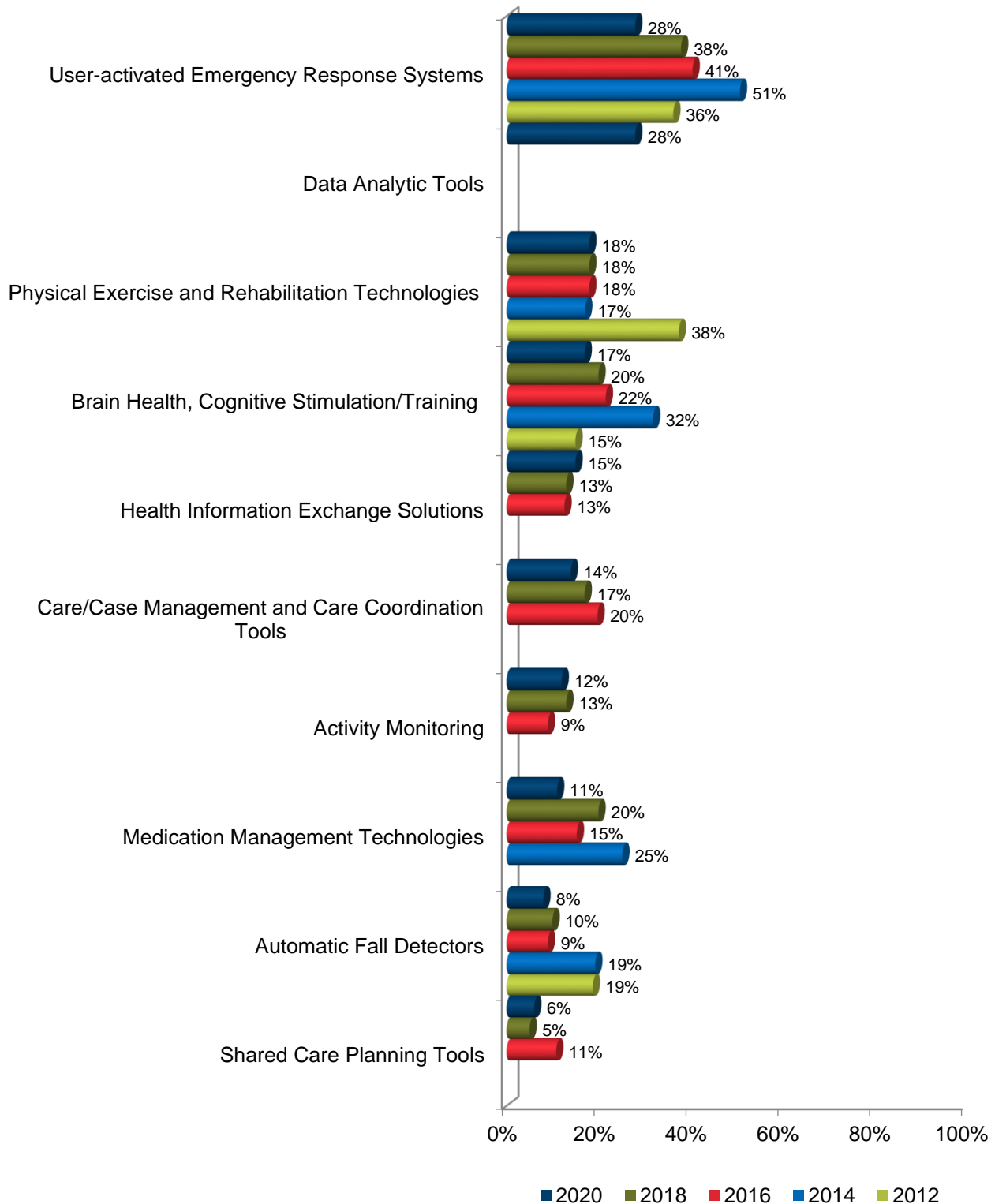
The graphs below show comparisons across the previous years' *Ziegler CFO Hotline*SM studies on technology spending. New to the current year's survey were questions related to Infection Control Systems, Staff and Resident Screening Technologies, Technical Support for Residents and Data Analytics Tools.

The most significant area of growth was with Video-conferencing Capabilities. Spending for Telehealth/Telemedicine technologies also doubled from investments made two years ago. These results are consistent with the changing needs brought forth by the COVID-19 pandemic. Resident access to the Internet and Social Networking sites saw a similar increase in investments during 2020. Interestingly, while these obvious technologies advanced significantly from two years ago, many of the other technology solutions held steady or declined in terms of the number of providers spending dollars in that particular category. This suggests a re-prioritization of where the technology dollars were being spent.

Investments in Technologies in Past 12 Months

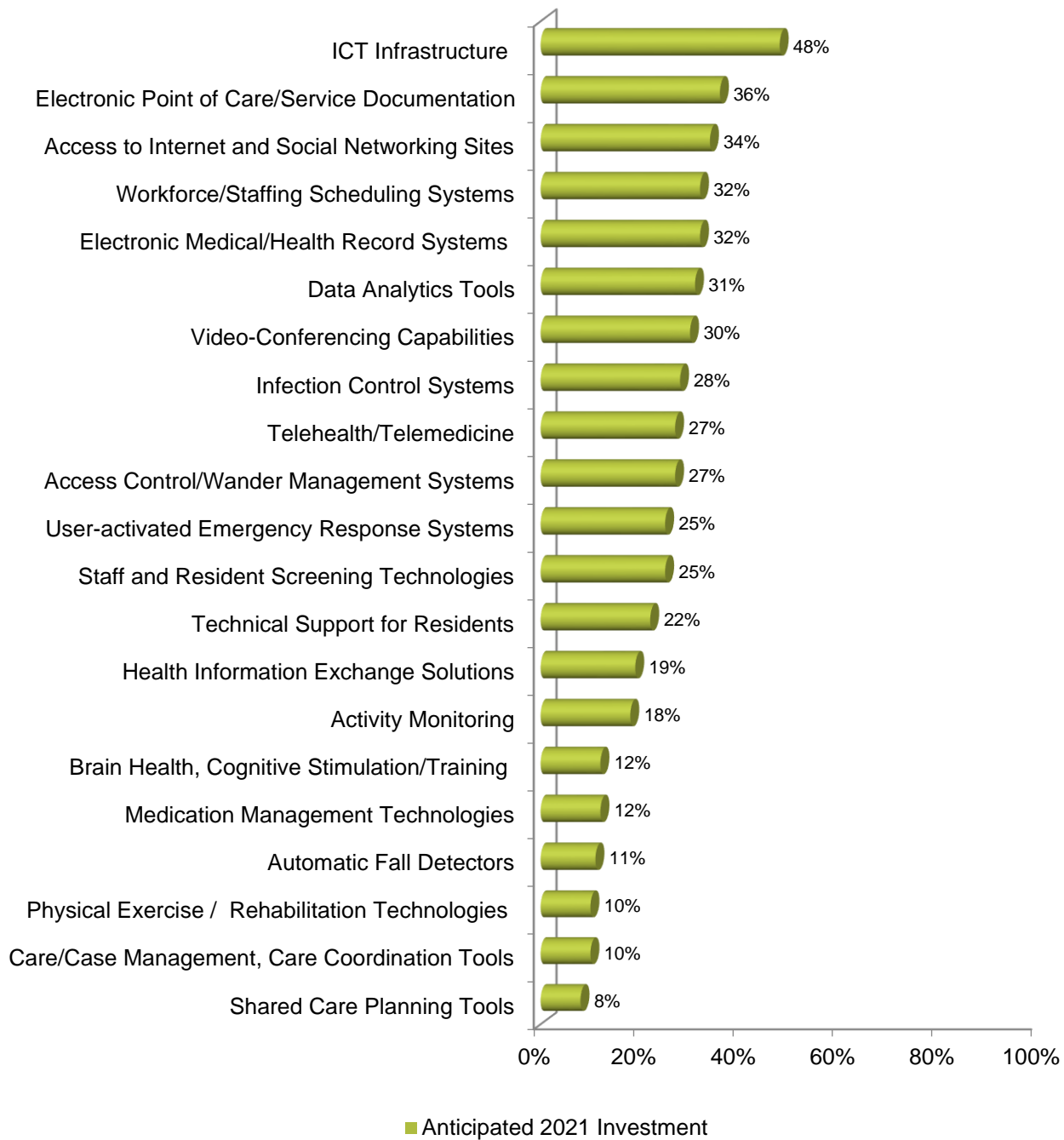


Investments in Technologies in Past 12 Months (cont.)



The survey also asked about future spending. Specifically, the respondents were asked to specify whether they plan to invest in various technologies in the year ahead.

Investments in Technologies in Next 12 Months



Survey respondents were asked to identify what percentage of their capital and operating budgets were devoted to these technologies in the past 12 months. The table below shows the average and median figures for the capital and operating budgets, respectively. In general, providers are budgeting about 3% in their total operating budgets, with multi-sites budgeting a higher percentage than single-site providers.

	Percentage of total Capital Budget devoted to technologies				Percentage of total Operating Budget devoted to technologies			
	2020	2018	2016	2014	2020	2018	2016	2014
Average percent (TOTAL)	8.0%	10.0%	11.8%	12.2%	3.0%	3.2%	2.5%	2.7%
Median percent (TOTAL)	5.0%	7.0%	7.0%	9.5%	2.0%	2.0%	2.0%	2.0%
Average percent (Single-sites)	7.2%	10.4%	11.7%	12.1%	2.5%	3.5%	2.4%	2.5%
Median percent (Single-sites)	5.0%	7.0%	7.0%	10.0%	2.0%	2.0%	2.0%	2.0%
Average percent (Multi-sites)	9.3%	9.7%	11.8%	12.2%	3.9%	2.8%	2.6%	2.9%
Median percent (Multi-sites)	5.0%	5.0%	7.0%	8.0%	2.4%	2.0%	2.0%	2.0%

A similar set of questions were asked specifically as to technological investments in bricks and mortar assets (buildings, etc.). The figures are fairly consistent with the results from the 2018 survey.

	Percentage of total Capital Budget devoted to campus/building/facilities				Percentage of total Operating Budget devoted to campus/building/facilities			
	2020	2018	2016	2014	2020	2018	2016	2014
Average percent (TOTAL)	11.1%	12.0%	6.9%	13.4%	4.2%	4.5%	2.1%	3.8%
Median percent (TOTAL)	5.0%	6.0%	5.0%	7.0%	2.0%	2.0%	2.0%	1.8%

Lastly, the survey allowed for open-ended comments to be made. Below is a sampling of those comments:

- *Biggest challenge is technology system connectivity so that systems used for specific purposes can talk to each other and not duplicate resident and team member data. And connection to the outside world where appropriate (pharmacy, hospital, physicians, etc.)*
- *In the coming year(s) more investments will be in services as we move more infrastructure to the cloud. Security continues to be a major investment.*
- *One warning: Be wary of the shiny new toy that everyone said you cannot live without only to find later on it remains sitting in the garage collecting dust. Money spent on technology unused or providing no value is money wasted.*
- *Sadly inadequate. Working hard to change the culture so we can catch up.*
- *Technology capital and operating budget is set to increase by approximately 10% annually over the next 5 years. Focus on network security and updating old infrastructure.*
- *We are also expanding our employee connectivity since not all employees have company emails using an app called mango apps and through our new workday ERP launch.*

- *We had originally planned to change EMR systems in FY2020 (9/30/20) but COVID changed those plans just like it changed everything else.*
- *We have been laying fiber-optic cabling throughout campus to be able to explore higher speed WiFi, video and perhaps VOIP capabilities in the future.*
- *We have under-invested in IT in the past, but will be emphasizing higher level of investment going forward.*
- *We're being forced to move to more cloud-based solutions which typically are ongoing operating expenses rather than initial capital investment, so that changes the impact this has on our financial statements.*

The senior living organizations' responses included in this report have been collated without verification of the accuracy of the data/comments therein. The results provided do not express an opinion of nor can they be guaranteed by Ziegler.

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