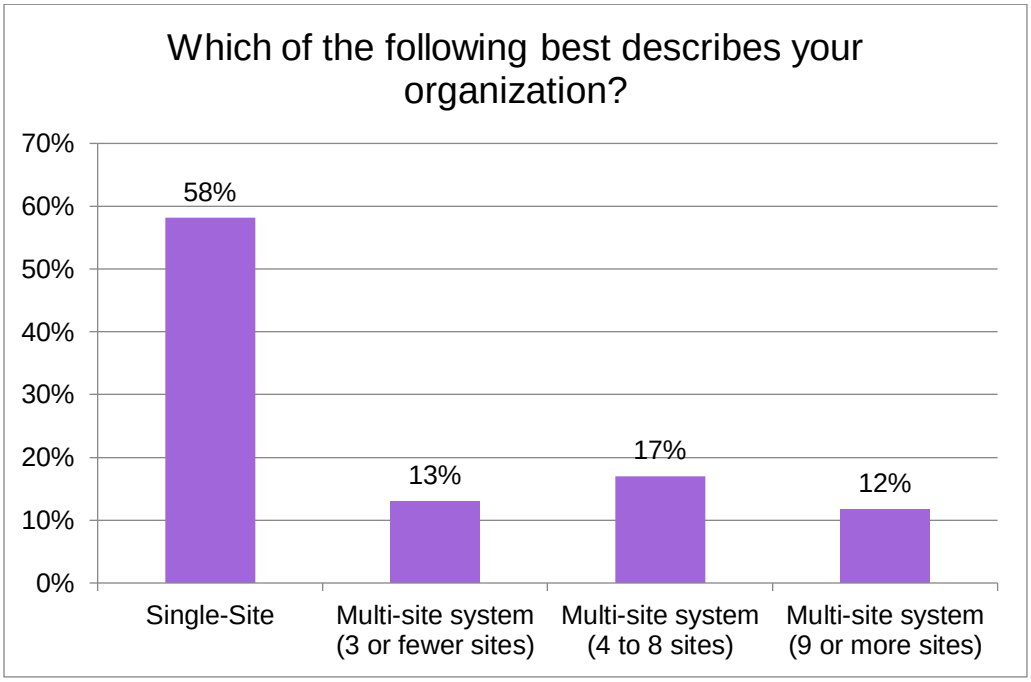
TECHNOLOGY SPENDING

ZIEGLER CFO HOTLINE℠

In December 2022, a *Ziegler CFO Hotline℠* survey gathered feedback on technology spending among senior living organizations. This particular study, conducted with input from LeadingAge CAST, revisits polls from 2020, 2018, 2016, 2014, and 2012 devoted to the same topic.

Over 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 58% of respondents were single-site organizations and the remaining 42% represented multi-site organizations.



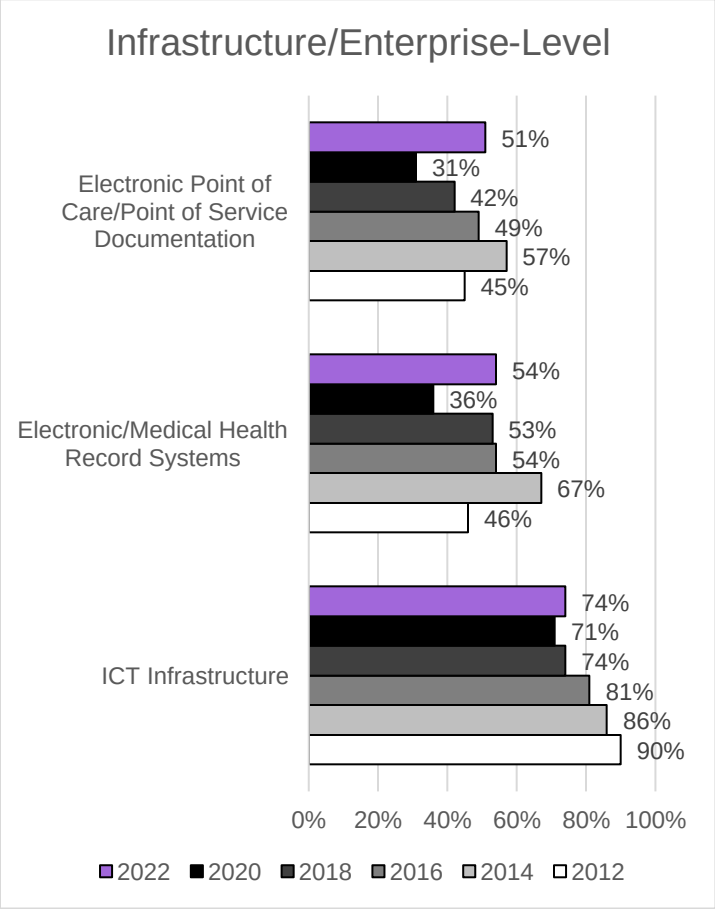
The initial section of the survey listed a variety of different technologies that are applicable to senior living providers and related healthcare organizations. Respondents were asked to identify which of the technologies they invested in over the past 12 months, as well as whether they planned to invest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

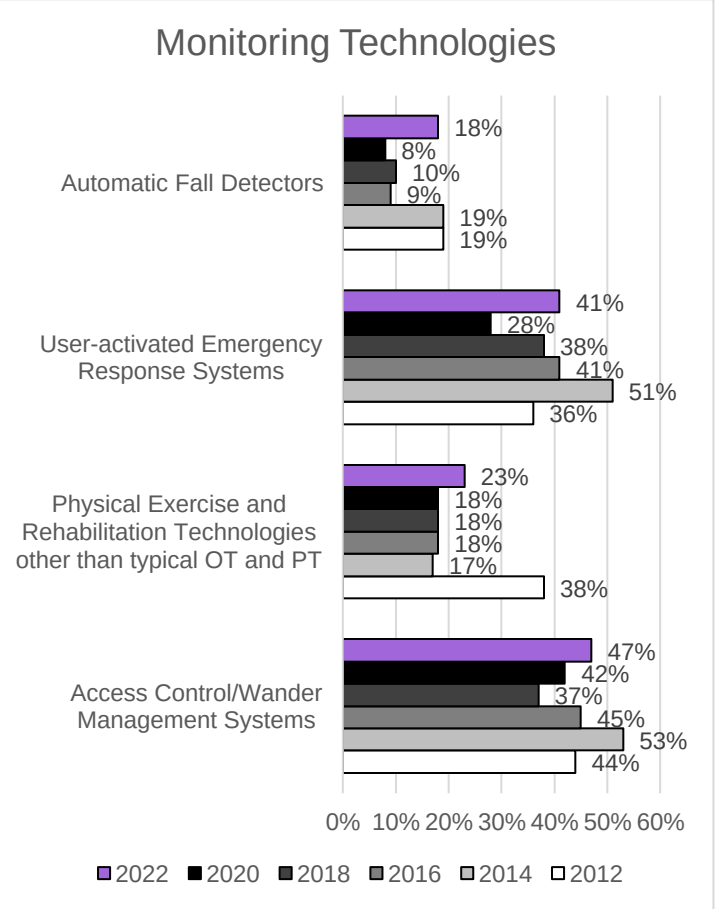
The table below shows the top five technology investments that senior living providers made across the past year. A comparison is also given to the top five areas mentioned in the 2020 survey. The top categories of investment for 2020 show a clear connection to the COVID-19 pandemic, while the top categories for 2022 show a return to priorities of years past.

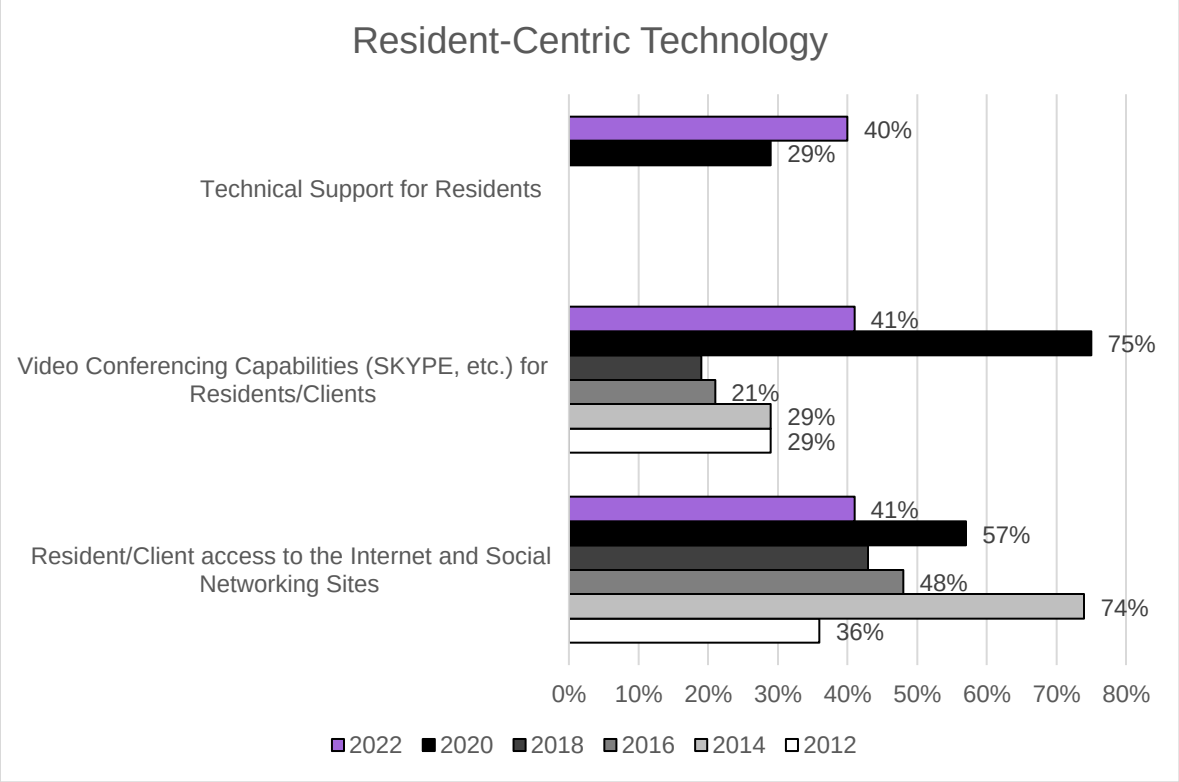
Top Five in 2022	Top Five in 2020
ICT Infrastructure (high-speed internet connectivity, wired/wireless) (74%)	Video Conferencing Capabilities (SKYPE, etc.) for Residents/Clients (75%)
Electronic Medical/Health Record Systems (EMR/EHR) (54%)	ICT Infrastructure (high-speed internet connectivity, wired/wireless) (71%)
Electronic Point of Care/Point of Service Documentation Systems (POC/POS) (51%)	Resident/Client access to the Internet and Social Networking Sites (57%)
Workforce/Staffing Scheduling Systems (47%)	Infection Control Systems (including Air Purification, Disinfection, and Hand Hygiene Monitoring Technologies) (45%)
Access Control/Wander Management Systems (47%)	Access Control/Wander Management Systems (42%)

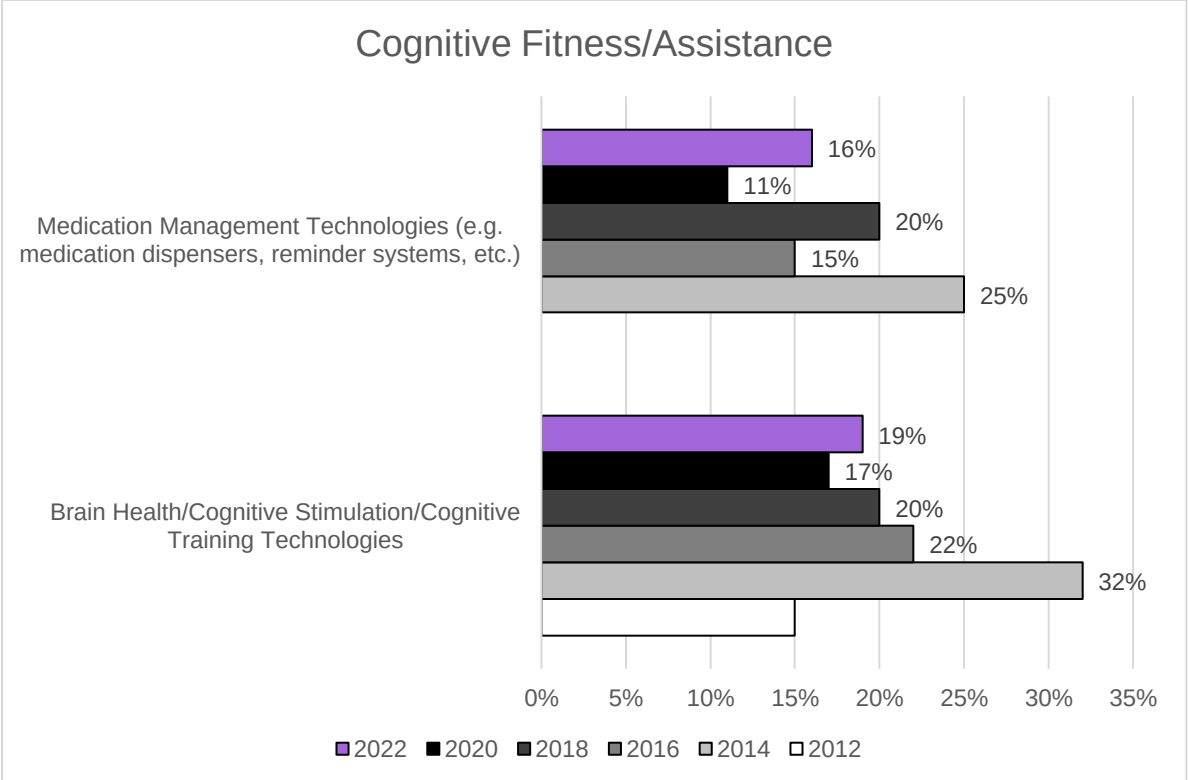
Across the past year, organizations were least likely to have invested in Medication Management Technologies (15%), Shared Care Planning and Care Coordination Tools (15%), and Robotic Process Automation (3%).

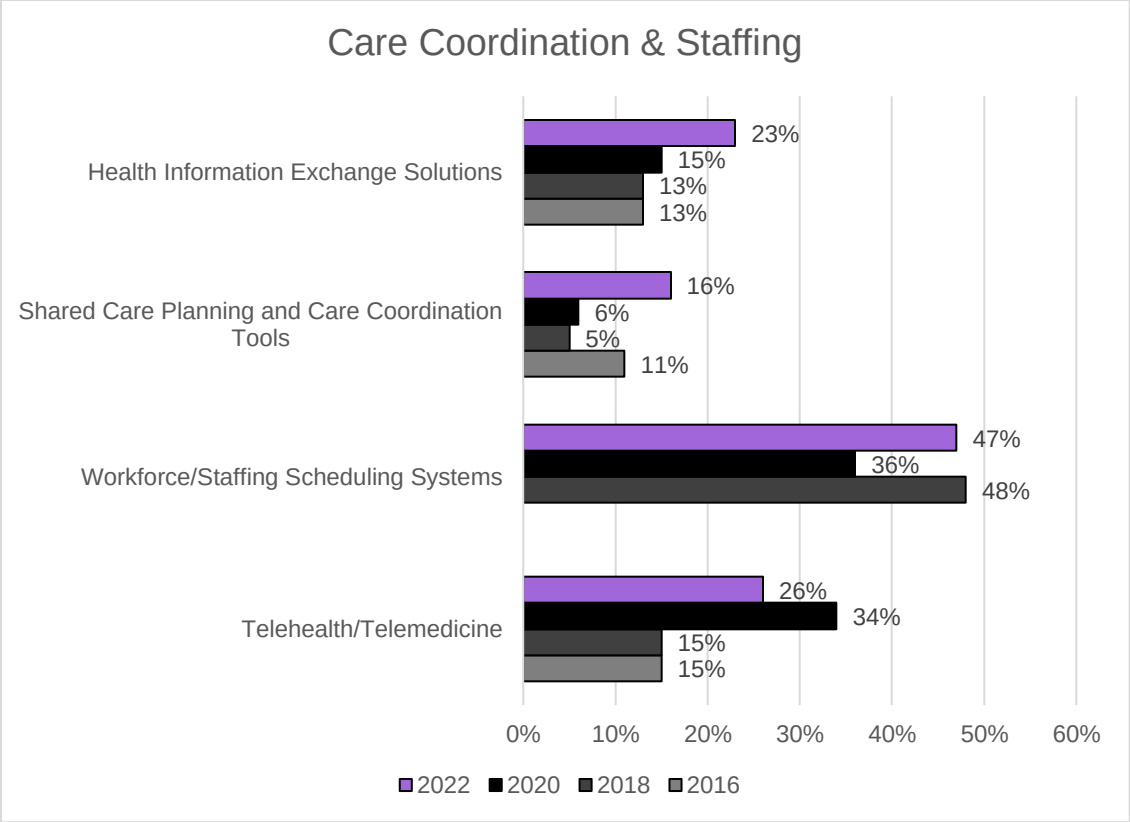
The graphs below show comparisons across the previous years' *Ziegler CFO Hotline*[SM] studies on technology spending.

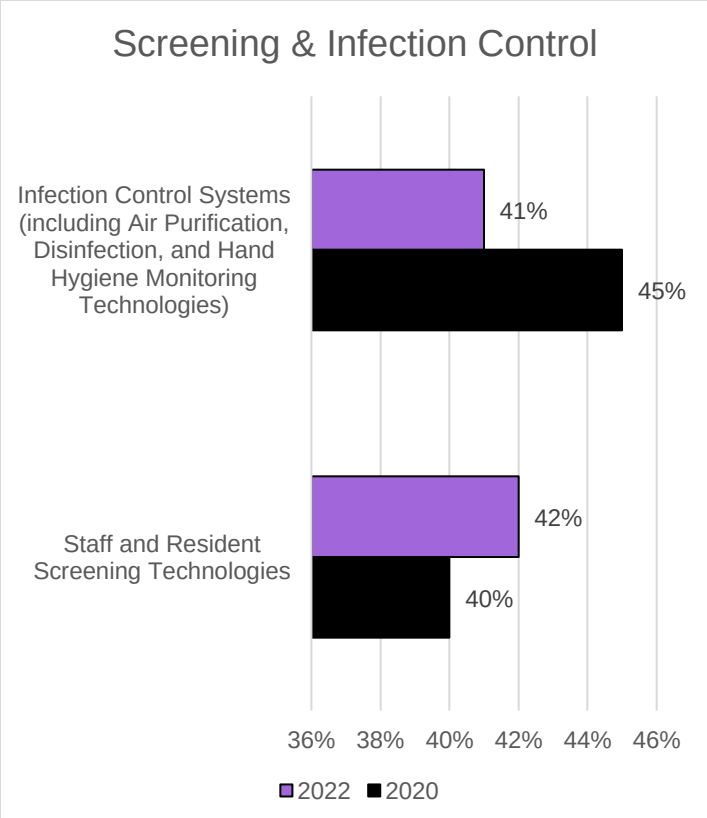


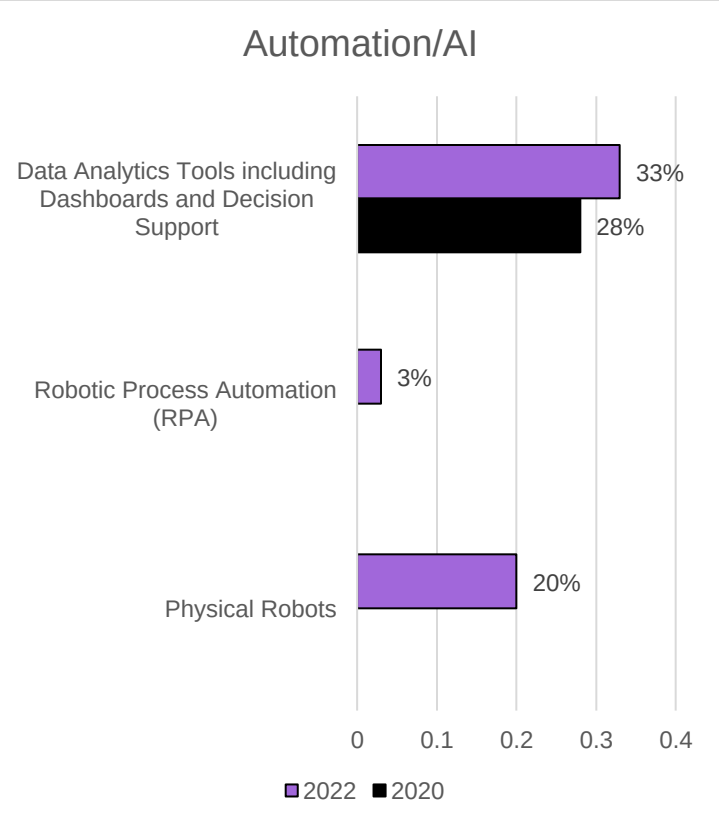



Resident-Centric Technology
Technical Support for Residents
40%
29%
Video Conferencing Capabilities (SKYPE, etc.) for Residents/Clients
41%
75%
21%
29%
29%
Resident/Client access to the Internet and Social Networking Sites
41%
57%
48%
74%
36%
0% 10% 20% 30% 40% 50% 60% 70% 80%
2022 2020 2018 2016 2014 2012

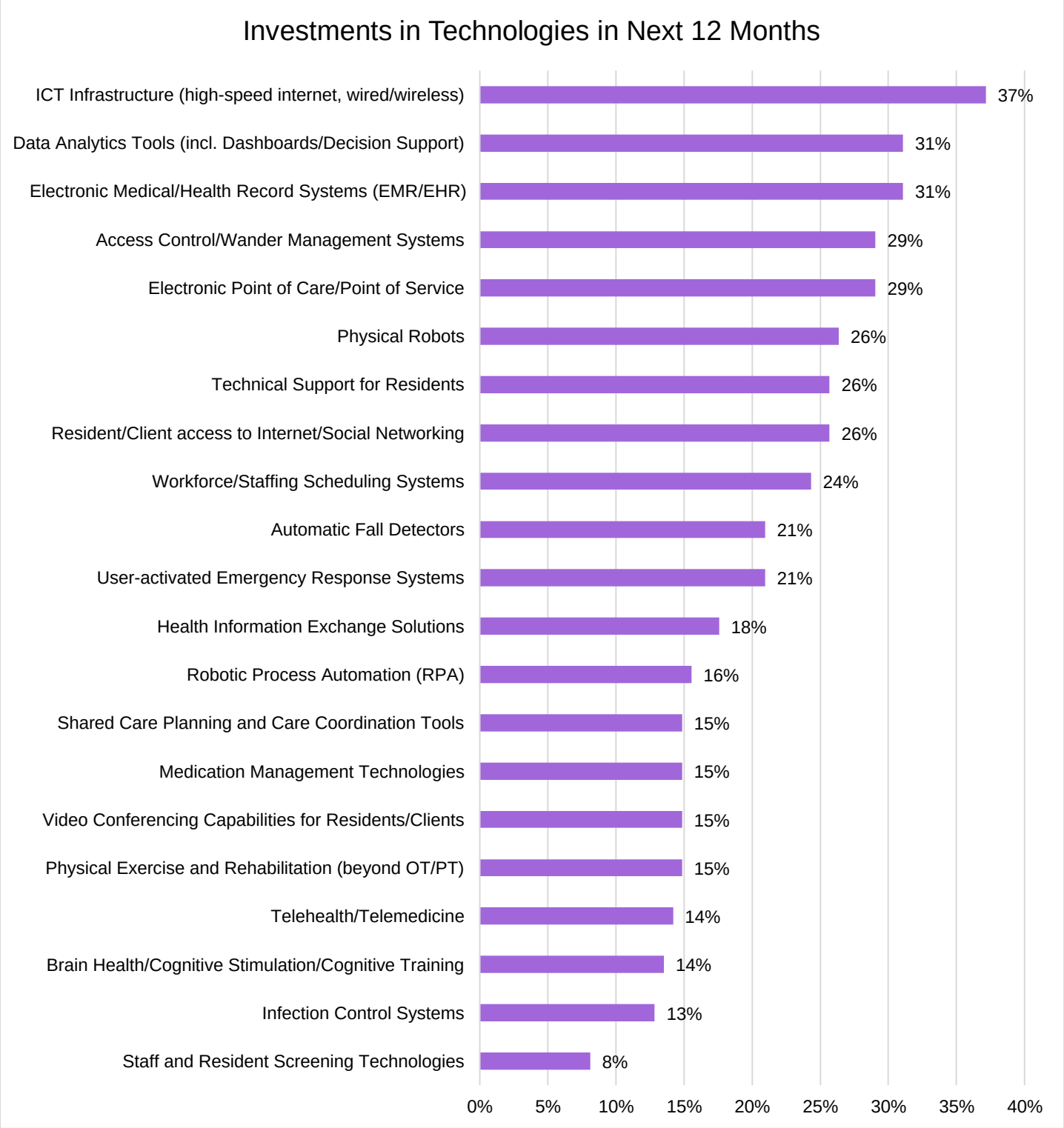

Cognitive Fitness/Assistance
Medication Management Technologies (e.g. medication dispensers, reminder systems, etc.)
16%
11%
20%
15%
25%
Brain Health/Cognitive Stimulation/Cognitive Training Technologies
19%
17%
20%
22%
32%
0% 5% 10% 15% 20% 25% 30% 35%
2022 2020 2018 2016 2014 2012


Care Coordination & Staffing
Health Information Exchange Solutions
23%
15%
13%
13%
Shared Care Planning and Care Coordination Tools
16%
6%
5%
11%
Workforce/Staffing Scheduling Systems
47%
36%
48%
Telehealth/Telemedicine
26%
34%
15%
15%
0%
10%
20%
30%
40%
50%
60%
2022
2020
2018
2016


Screening & Infection Control
Infection Control Systems (including Air Purification, Disinfection, and Hand Hygiene Monitoring Technologies)
41%
45%
Staff and Resident Screening Technologies
42%
40%
36%
38%
40%
42%
44%
46%
2022
2020


Automation/AI
Data Analytics Tools including Dashboards and Decision Support
33%
28%
Robotic Process Automation (RPA)
3%
Physical Robots
20%
0
0.1
0.2
0.3
0.4
2022
2020

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.



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 tables below show the average and median figures for the capital and operating budgets, respectively.

	Percentage of total Capital Budget devoted to technologies				
	2022	**2020**	**2018**	**2016**	**2014**
Average percent *(TOTAL)*	8.3%	8.0%	10.0%	11.8%	12.2%
Median percent *(TOTAL)*	5.0%	5.0%	7.0%	7.0%	9.5%
Average percent *(Single-sites)*	9.1%	7.2%	10.4%	11.7%	12.1%
Median percent *(Single-sites)*	5.0%	5.0%	7.0%	7.0%	10.0%
Average percent *(Multi-sites)*	7.1%	9.3%	9.7%	11.8%	12.2%
Median percent *(Multi-sites)*	5.0%	5.0%	5.0%	7.0%	8.0%

	Percentage of total Operating Budget devoted to technologies				
	2022	**2020**	**2018**	**2016**	**2014**
Average percent *(TOTAL)*	3.4%	3.0%	3.2%	2.5%	2.7%
Median percent *(TOTAL)*	2.0%	2.0%	2.0%	2.0%	2.0%
Average percent *(Single-sites)*	3.5%	2.5%	3.5%	2.4%	2.5%
Median percent *(Single-sites)*	2.0%	2.0%	2.0%	2.0%	2.0%
Average percent *(Multi-sites)*	3.3%	3.9%	2.8%	2.6%	2.9%
Median percent *(Multi-sites)*	2.0%	2.4%	2.0%	2.0%	2.0%

A similar set of questions were asked specifically as to technological investments in facility-related assets.

	Percentage of total Capital Budget devoted to campus/building/facilities				
	2022	**2020**	**2018**	**2016**	**2014**
Average percent *(TOTAL)*	13.8%	11.1%	12.0%	6.9%	13.4%
Median percent *(TOTAL)*	5.0%	5.0%	6.0%	5.0%	7.0%

	Percentage of total Operating Budget devoted to campus/building/facilities				
	2022	**2020**	**2018**	**2016**	**2014**
Average percent *(TOTAL)*	5.7%	4.2%	4.5%	2.1%	3.8%
Median percent *(TOTAL)*	2.0%	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, which may be edited for length or minor grammatical changes.

- *Tech investments are shifting to meet Boomer needs as that age group is becoming prospects.*
- *We have significantly increased our investment in IT this year, and I expect this amount of investment to continue for the next several years.*
- *We had to delay or scale back several technology-related projects due to operating results not hitting budget.*
- *Our focus has been on new construction at our primary site, so much of the budget spent has been bringing these new areas into our current technological structure.*
- *Three years ago, replaced entire network with standardized hardware and software to increase reliability and provide for remote management. Many residents have converted to streaming for their television and are quite satisfied with the decision.*
- *2022 was a key year for selection processes and evaluating core applications we use (HRIS, AP/GL, Invoice/expense, EMR). Next year's focus will be on efficiencies/features we'd like to improve. We will have continued focus on security related items and penetration based testing. Some of these items that are unchecked we looked at within the past 12 months, discussed with vendors, had demos - we just haven't invested or implemented the products (such as telehealth and robotics).*
- *Have not invested in the past 12 months and do not plan any investment this coming year.*
- *Investment in tech has been shifting buckets -- with more resources targeting service subscriptions and less capital need for hardware and devices.*
- *We are under a capital freeze and limited on spending. The majority of our spending will be for a new nurse call system and updated security cameras.*
- *Movement to cloud based systems is driving a shift in moving budget dollars from capital to operating budgets.*
- *Our campus is currently midway through a complete infrastructure overhaul. This includes just about every facet of business technology, including backups, networking, internet connectivity, communications, entertainment, productivity, staffing, payroll, IT services, EVS, facilities services, healthcare, and emergency response, plus more I'm probably not thinking about. We estimate the lion's share of this work to be complete by the end of 2023.*
- *We have spent less this year in new investment given 1) prioritize focus on workforce management, labor concerns, 2) significant technology infrastructure investments in prior years.*
- *Planning to change from Matrix systems to PCC systems.*
- *We very recently invested in a Robot for dining to assist with staffing challenges. We are excited to implement as soon as it arrives.*

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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