



IDC FutureScape: Worldwide Healthcare 2015 Predictions

IDC Health Insights Analysts

November 12, 2014

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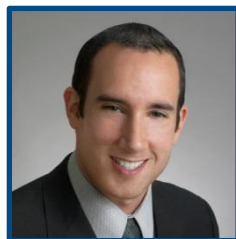
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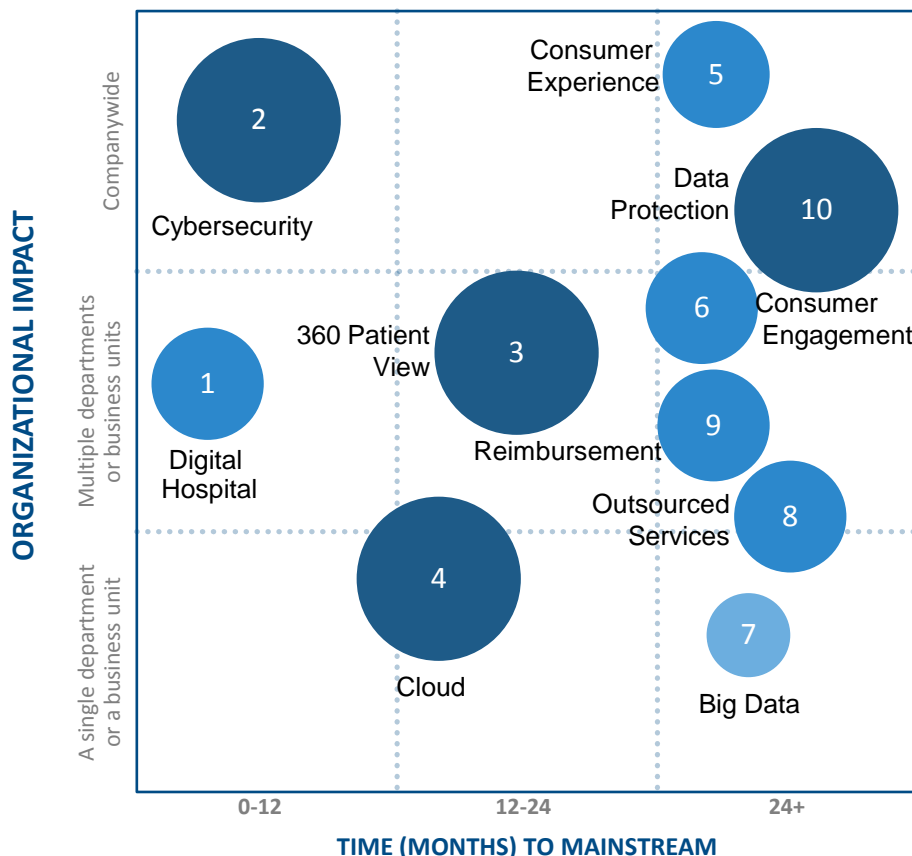
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IDC FutureScape Healthcare Executive Summary



IDC FutureScape

IDC Health Insights Top 10 Predictions



Note: The size of the bubble indicated complexity/cost to address. Source: IDC, 2014

Key Drivers for Healthcare IT



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- ✓ Global financial recovery is slow and uneven
- ✓ Cost of healthcare is unsustainable
- ✓ Healthcare reform has emphasized cost and clinical outcomes resulting in IT innovation
- ✓ Compliance to care delivery standards, quality and best practices
- ✓ Increasing access to healthcare and social care through technology
- ✓ 3rd platform technology adoption and increased computing power
- ✓ Ubiquitous availability of mobile devices and proliferation of internet connected devices
- ✓ Protecting patient privacy and cybersecurity are key compliance mandates that come with incentives and penalties
- ✓ An increased focus on the consumers' experience and demand for convenience

① With rising healthcare costs and new emphasis on clinical outcomes, operational inefficiency will become critical at 25% of hospitals; as a result, by 2016, these hospitals will be budgeting for a data-driven digital hospital strategy.

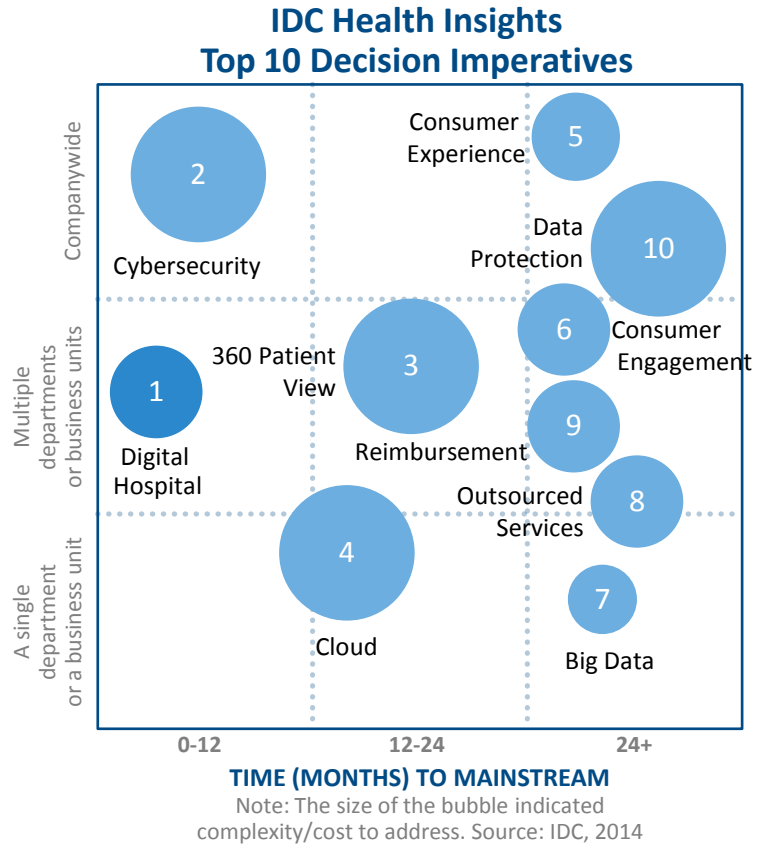


IT Impact

- Investments will be focused on enabling leaner data management and analytics.
- A solid, integrated and scalable 3rd platform IT infrastructure supporting the analytical layer of the data driven digital hospital will be mission critical.
- A transparent performance monitoring system must be in place.

Guidance

- Ensure the support of the digital hospital strategy with appropriate technology, staff, data, and funding.
- Educate hospital leadership and clinicians on IT strategic role for ensuring strong executive support and funding.
- Establish stronger cooperation with LoB and medical information officers.



② By 2015, 50% of healthcare organizations will have experienced 1 to 5 cyberattacks in the last 12 months with 1 out of 3 attacks deemed successful requiring healthcare organizations to invest in a multi-prong security strategy to avoid disruptions to normal operations and incurring fines and notification costs.



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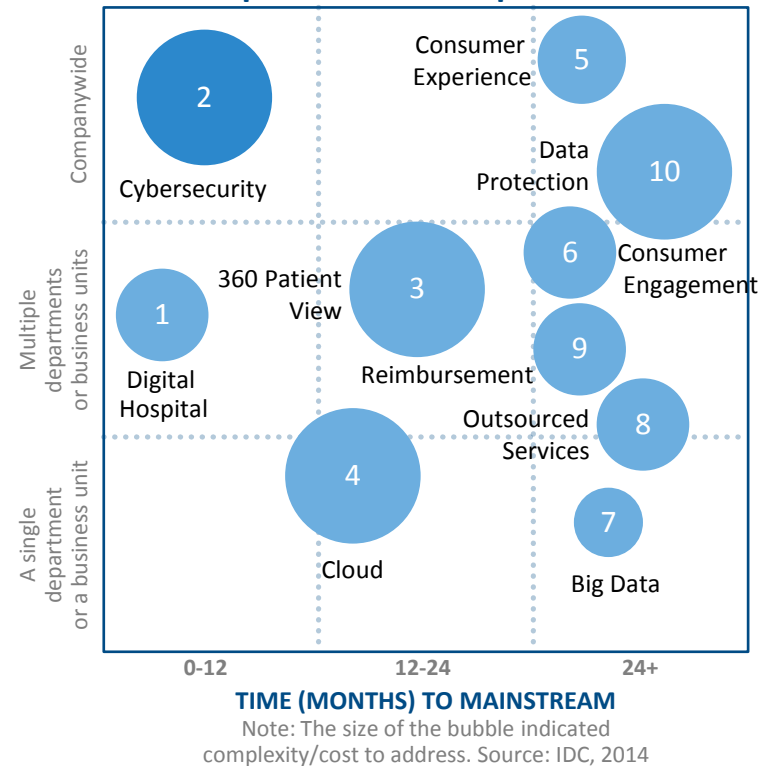
IT Impact

- Cybersecurity budgets will increase by 10 – 15% in the next three years; specific areas of investment include identification and predictive analytics capabilities to thwart cyberattacks before they happen.
- Within 18 months, cyber security leadership and governance will be established to ensure that security aligns with business and IT strategies.
- All devices and device types must be included in a risk assessment.

Guidance

- In the near term, conduct a comprehensive risk assessment and identify assets that are attractive to cyber criminals.
- Accelerate recognition and remediation of a cyber attack to minimize business disruption.
- Make security a business priority.

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③ Driven by the increased pressure to improve quality and manage costs, 15% of hospitals will create a comprehensive patient profile by 2016 that will allow them to deliver personalized treatment plans.



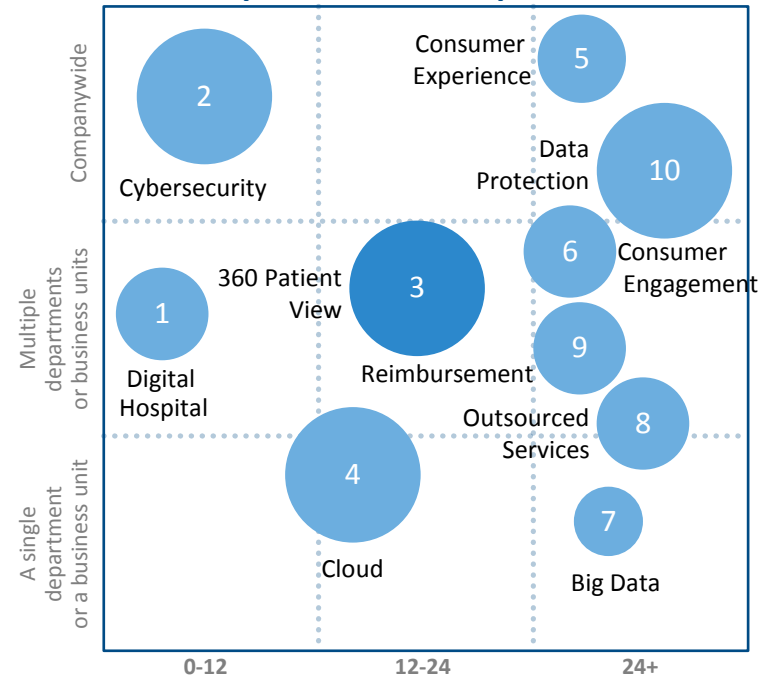
IT Impact

- Healthcare organizations will have to determine the relevant data sources.
- Data models must be sufficiently flexible to incorporate new data sources.
- Sufficient computing power must be available to manage new and growing data sources.

Guidance

- Inventory current data sources and identify and prioritize new data sources.
- Involve all departments that have use of these new data sources.
- Evaluate the required computing capacity and budget accordingly.

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Top 10 Decision Imperatives**



TIME (MONTHS) TO MAINSTREAM

Note: The size of the bubble indicated complexity/cost to address. Source: IDC, 2014

④ By 2018, 80% of healthcare data will pass through the cloud at some point in its lifetime, as providers seek to leverage cloud based technologies and infrastructure for data collection, aggregation, analytics and decision-making.



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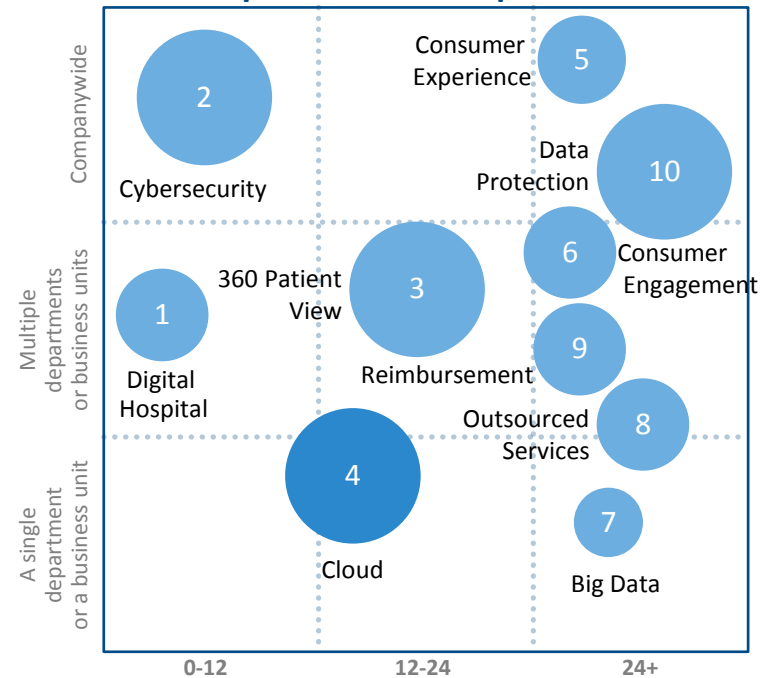
IT Impact

- Extended information architecture is needed to leverage both cloud and traditional delivery models, and hybrid models that leverage both on premise and cloud delivery for different workloads.
- An organization plan that contemplates changes in roles, disciplines and hiring to support a service architecture will need to be developed.
- Reduced operating cost and create a more lean and agile IT capability, while offering better service levels to the organization through cloud.

Guidance

- Prepare cloud strategies, plan for investments and remain agile for change.
- Create a roadmap for moving technology to the cloud and investing in new applications and infrastructure in the cloud.
- Select partners carefully.
- Consider a "cloud first" policy that steers new investments in applications and infrastructure to the cloud and moves existing IT installation toward virtual private operations.

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TIME (MONTHS) TO MAINSTREAM

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⑤ As a result of an increased focus on improving the consumer experience, 65% of consumer transactions with healthcare organizations will be mobile by 2018, thus requiring healthcare organizations to develop omni-channel strategies to provide a consistent experience across the Web, mobile and telephonic channels.



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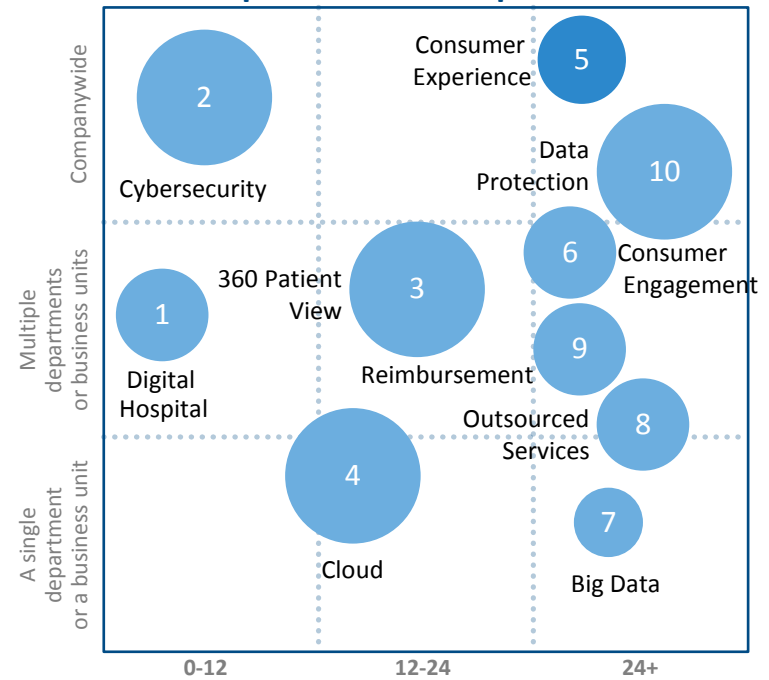
IT Impact

- Mobile strategy must be in place for devices, people and processes in the next 18 months.
- As mobile solutions become more mission critical, a solid and scalable IT infrastructure is required to ensure the mobile solutions' performance, reliability, and ability to scale.
- Processes must be in place to ensure a consistent consumer experience across the Web, mobile and telephonic channels.

Guidance

- In the near term, coordinate communication and consumer engagement initiatives across the enterprise and its different channel touch points.
- Implement technology solutions that provide and support a secure integrated mobile channel and provide a consistent experience across channels.
- Seek solutions that integrate with back-end systems for streamlined IT and support flexibility, and to provide a single source of truth for the different channel access points.

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TIME (MONTHS) TO MAINSTREAM

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⑥ To control spiraling healthcare costs, 70% of healthcare organizations worldwide will invest in consumer-facing mobile applications, wearables, remote health monitoring, and virtual care by 2018, which will create more demand for big data and analytics capability to support population health management initiatives.



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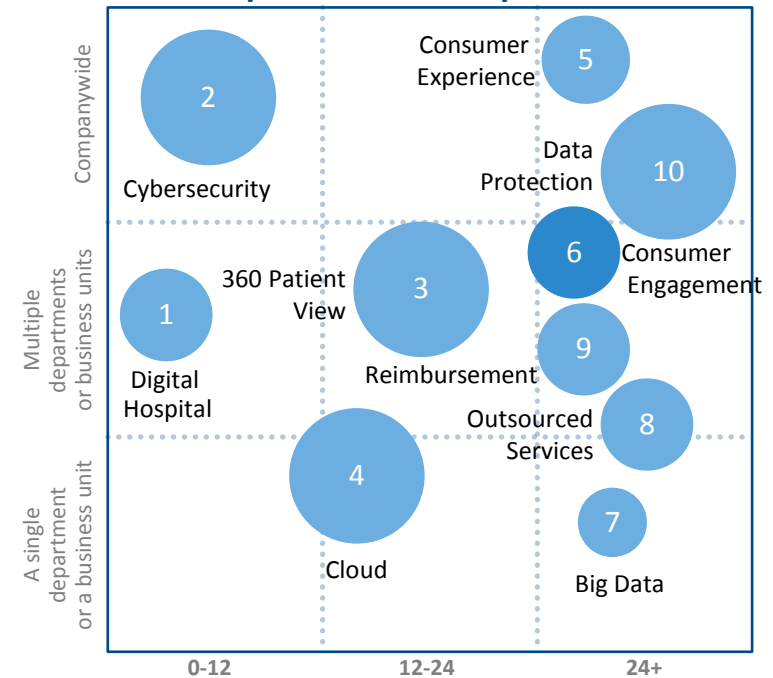
IT Impact

- Top technology investments for the next 12 – 18 months include analytics, risk identification, and predictive modeling, which will help healthcare organizations segment consumers.
- The proliferation of consumer engagement endpoints — mobile phones and tablets, personal health and fitness devices, sensors in the home or worn on the body, and even social media — will result in a data explosion that creates additional data mining opportunities for healthcare organizations.

Guidance

- In the near term, articulate clearly the objectives of consumer engagement initiative.
- Recognize that the “gadget” is just the tip of the proverbial iceberg when it comes to investment and deployment of connected health technologies.
- Ensure connected health technologies fits within the workflow of clinicians, consumers, and caregivers and educate them about its benefits.

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TIME (MONTHS) TO MAINSTREAM

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7 Building on continuing technology innovation and the increasing use of knowledge-based workflows and actionable analytics, more than 50% of big data issues will be reduced to routine operational IT by 2018, reducing the need for specialized IT resources to support big data.

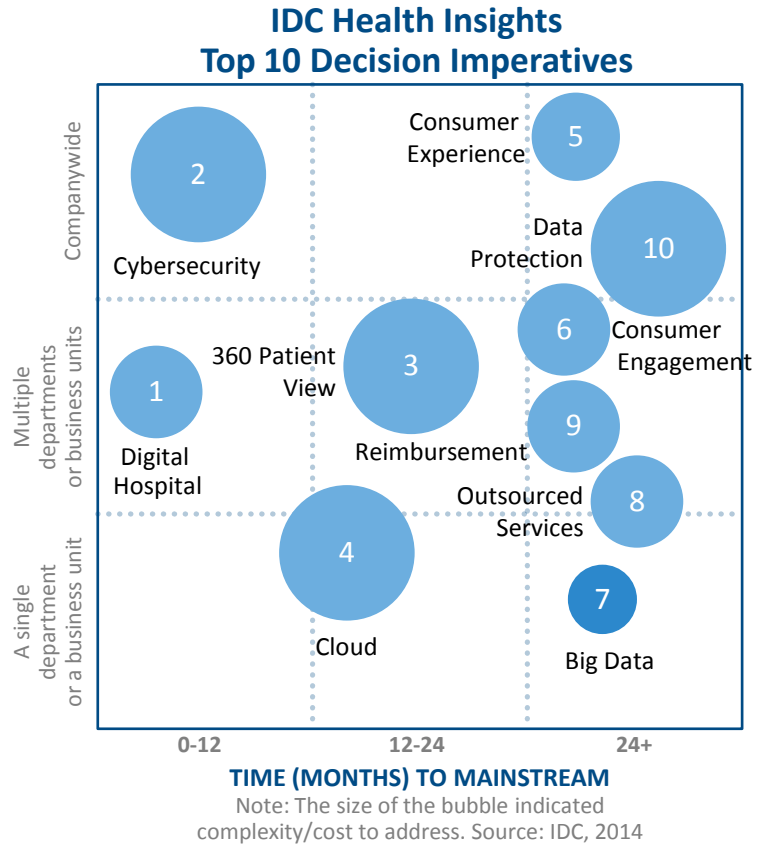


IT Impact

- Life science data generation currently exceeds Moore’s Law by at least 4x.
- There is increasing access to new data resources (e.g. EHR and patient/consumer generated data) that will inform both strategic and tactical decision making.
- The achievement of the \$1000 genome forebodes a new tsunami of big data.

Guidance

- Exploit integration of the 3rd Platform to enable better consolidation and more automated extracts from big data (ideally at or near the point of data generation).
- Standardize the rules governing the handling of regulated data to empower sharing globally and across regulatory domains.



- ⑧ With increased dependence on external partners for outsourced services, more than 50% of health and life science buyers will demand substantial risk sharing by 2018 to ensure that service providers recognize their growing role in the process and delivering added revenues to high performers at the expense of satisfactory or lesser performers.



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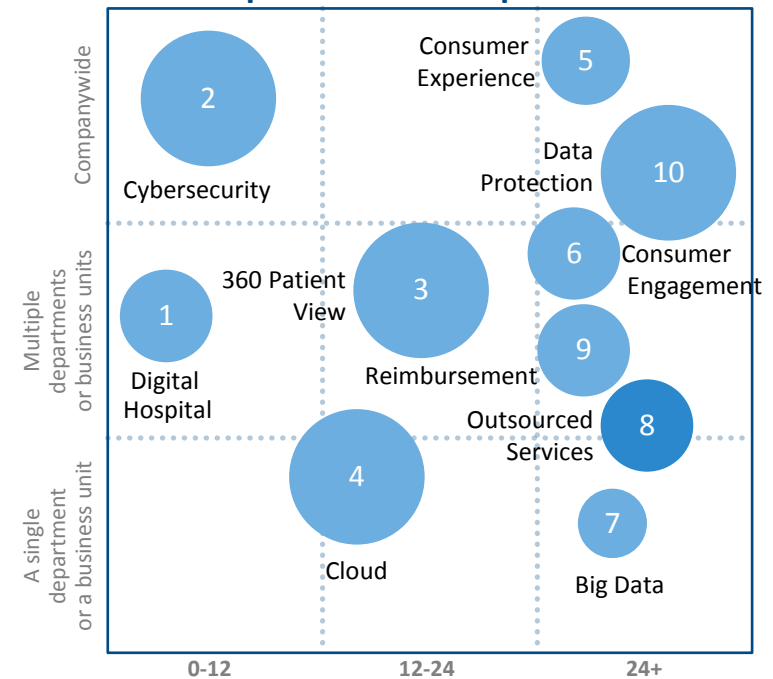
IT Impact

- Risk-based outsourcing agreements rely on accurate data and data analysis, making the related IT platforms and skills prerequisites for successful execution of these agreements.
- Third party IT infrastructure, software and services provides with expertise in provisioning and benchmarking the performance of risk-based operational metrics for HCLS enterprises will rise in importance.

Guidance

- Institute long term strategies for acquiring, improving and supporting the special relationships and HCLS skill sets needed to adequately define and monitor the operating metrics.
- Expect extensive initial investment to create and implement the databases and data analysis tools that risk-based outsourcing contracts require. HCLS entities commonly underestimate the hurdles of data cleansing and integration when they establish new operational metrics.

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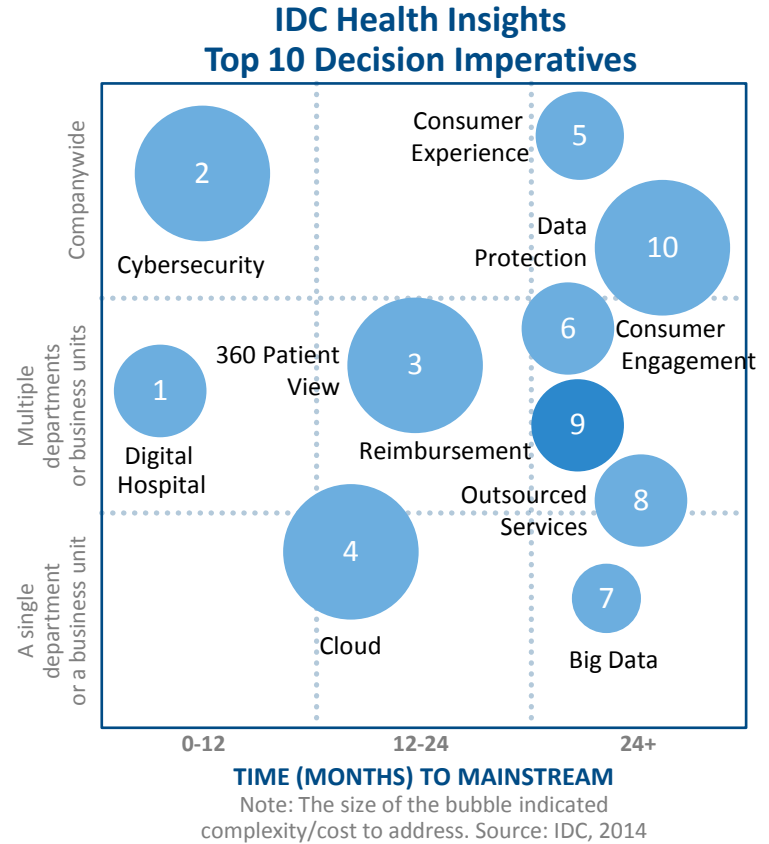
⑨ As a result of increased pressures to deliver better outcomes of care more efficiently, payers implement newer reimbursement models for 35% of their payments to providers in NA and EU within the next 36 months resulting in related investments in quality measurement, payment and billing systems.

IT Impact

- Payer and provider stakeholder groups need to change their business relationships and organizational cultures to adopt evolving reimbursement methods.
- Payers and providers need to adjust their business and information sharing processes in the next 12 – 24 months to accommodate emerging reimbursement methods.
- Vendors must enhance and/or develop IT applications in the next 12 – 18 months to accommodate new requirements.

Guidance

- View your business and information sharing relationships in a new light and seek to develop "win-win" opportunities to better manage costs.
- Focus efforts on achieving improving quality and financial outcomes.
- Payers need to implement IT systems within 12 – 24 months to accommodate changing reimbursement and quality measurement models. Vendors need to develop and/or enhance existing applications.



⑩ By 2018, 42% the world's healthcare data will be unprotected but need to be protected, as use of data and analytics continues to proliferate and more stakeholders are involved in delivery of care.



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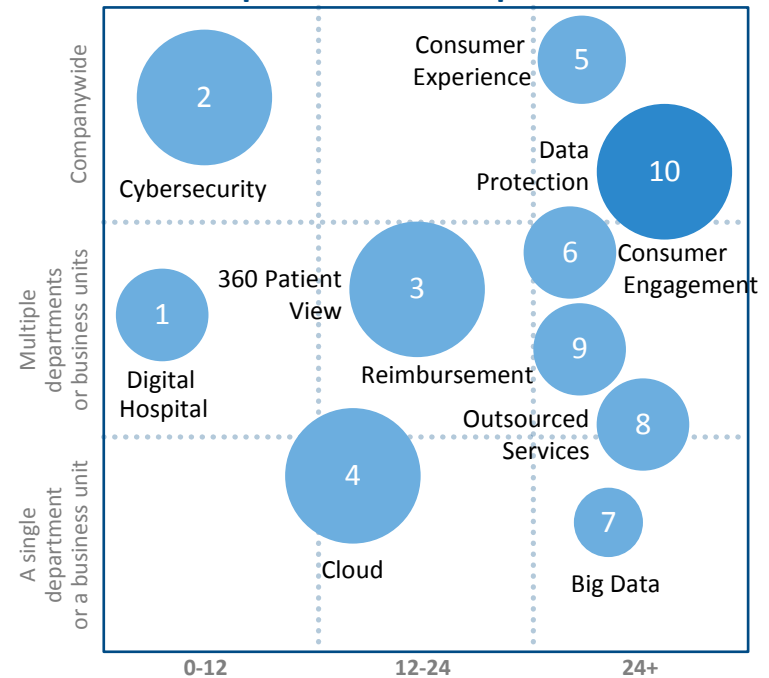
IT Impact

- Dedicated people to enable security, determine what data needs to be protected and how to attack the problems of cyber security and regulatory compliance is critical.
- Processes need to be developed for data security; including sequestering data, and clearly designating those responsible for it.
- Technology and infrastructure selection and implementation must be done with security in mind.

Guidance

- Conduct ongoing risk assessments to help ensure data security.
- Set clear goals for security and create a culture of compliance.
- Consider the cloud both as a tool and as an integral part of a cyber security strategy.

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Guidance Summary



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1

Recognize strategy, people and processes are as important as technology when it comes to transforming business and clinical models

2

Align business and IT strategies

3

Cultivate tomorrow's IT talent today

4

Improve the consumer experience by removing friction and actively engaging with them when and where they want to engage

5

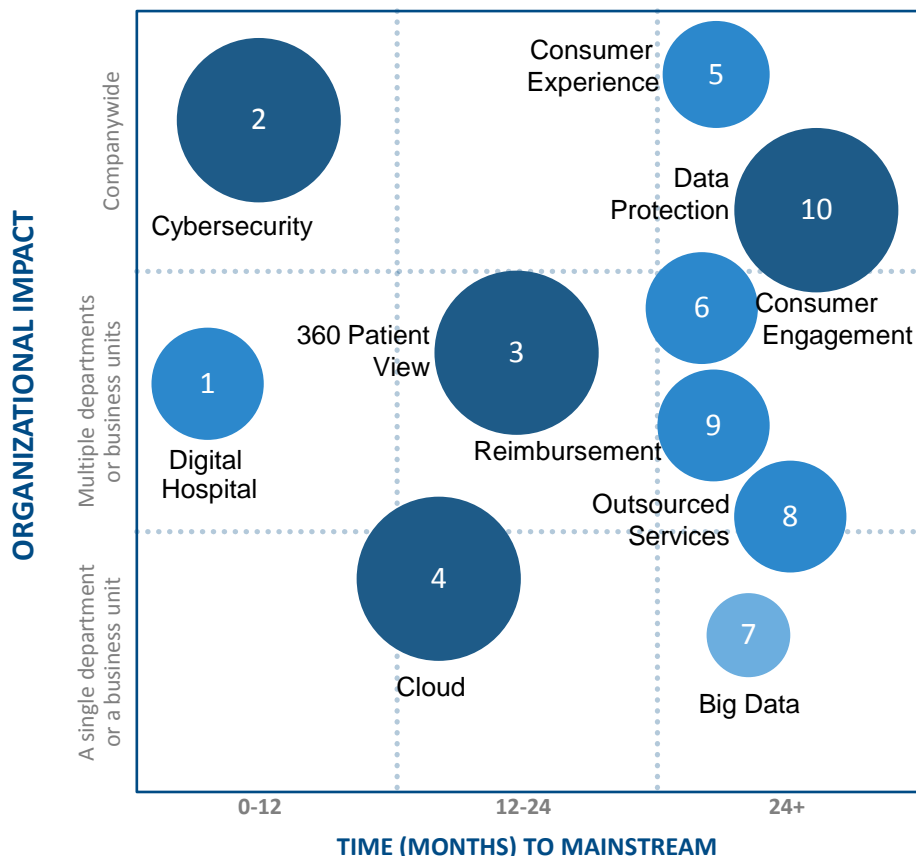
Invest in 3rd Platform technologies to enable agile, mobile first, and cloud first strategies

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Healthcare Decision Imperatives #1-5

Part I



IDC FutureScape

1. With rising healthcare costs and new emphasis on clinical outcomes, operational inefficiency will become critical at 25% of hospitals; as a result, by 2016, these hospitals will be budgeting for a data-driven digital hospital strategy.
2. By 2015, 50% of healthcare organizations will have experienced 1 to 5 cyberattacks in the last 12 months with 1 out of 3 attacks deemed successful requiring healthcare organizations to invest in a multi-prong security strategy to avoid disruptions to normal operations and incurring fines and notification costs.
3. Driven by the increased pressure to improve quality and manage costs, 15% of hospitals will create a comprehensive patient profile by 2016 that will allow them to deliver personalized treatment plans.
4. By 2018, 80% of healthcare data will pass through the cloud at some point in its lifetime, as providers seek to leverage cloud based technologies and infrastructure for data collection, aggregation, analytics and decision-making.
5. As a result of an increased focus on improving the consumer experience, 65% of consumer transactions with healthcare organizations will be mobile by 2018, thus requiring healthcare organizations to develop omni-channel strategies to provide a consistent experience across the Web, mobile and telephonic channels.

Healthcare Decision Imperatives #6-10

Part II



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6. To control spiraling healthcare costs, 70% of healthcare organizations worldwide will invest in consumer-facing mobile applications, wearables, remote health monitoring, and virtual care by 2018, which will create more demand for big data and analytics capability to support population health management initiatives.
7. Building on continuing technology innovation and the increasing use of knowledge-based workflows and actionable analytics, more than 50% of big data issues will be reduced to routine operational IT by 2018, reducing the need for specialized IT resources to support big data.
8. With increased dependence on external partners for outsourced services, more than 50% of health and life science buyers will demand substantial risk sharing by 2018 to ensure that service providers recognize their growing role in the process and delivering added revenues to high performers at the expense of satisfactory or lesser performers.
9. As a result of increased pressures to deliver better outcomes of care more efficiently, payers implement newer reimbursement models for 35% of their payments to providers in NA and EU within the next 36 months resulting in related investments in quality measurement, payment and billing systems.
10. By 2018, 42% the world's healthcare data will be unprotected but need to be protected, as use of data and analytics continues to proliferate and more stakeholders are involved in delivery of care.

Questions and Answers



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