

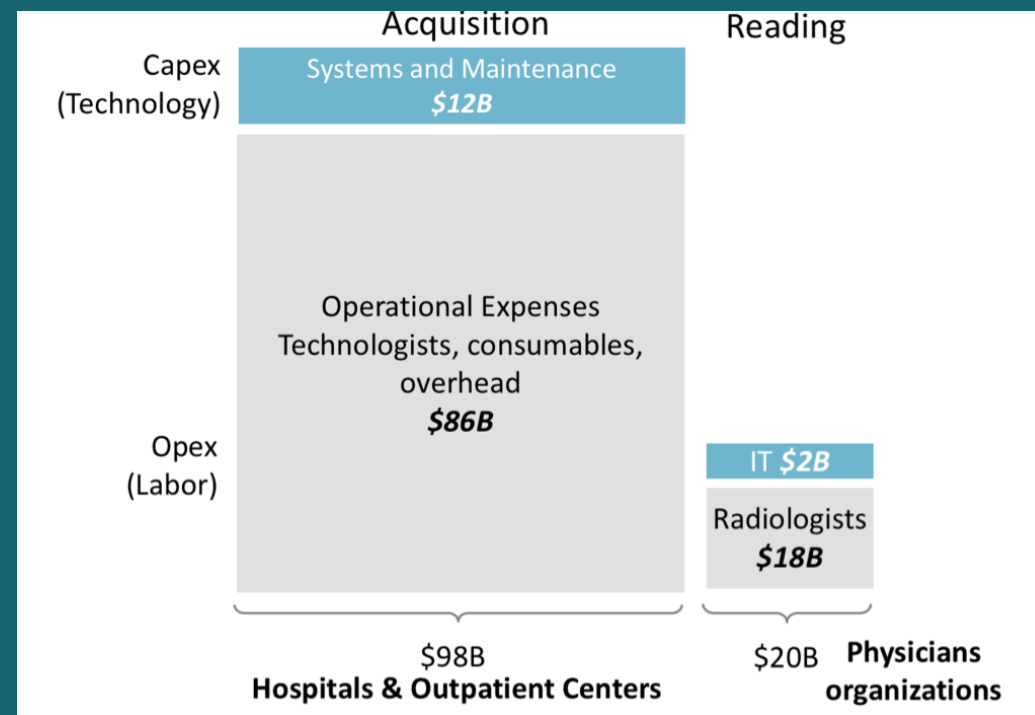


Top 5 Trends

Trend 1: AI for operational and workflow efficiency

- Cost of operating an imaging department dominated by operational cost
- AI can significantly reduce operational costs
- Low hanging fruit for AI ...
 - Largely unregulated
 - Not dependent on reimbursement
 - Creates capacity for better care
 - High financial incentive
 - Business model is clear

US hospitals and health centers spends ~\$118 B/yr on imaging; 83% of that is spent on image acquisition, which is almost entirely in the unregulated space.





Top 5 Trends

Trend 2: AI for clinical decision support

- CDS (incl radiomics and radiogenomics) is the bulk of development and research activities in healthcare AI
 - It will have profound impact on care
- CDS is largely regulated, adds time and cost to development process
- Longer path to value (regulatory approval, reimbursement, adoption, medicolegal, cultural, ...)
- Business case less clear

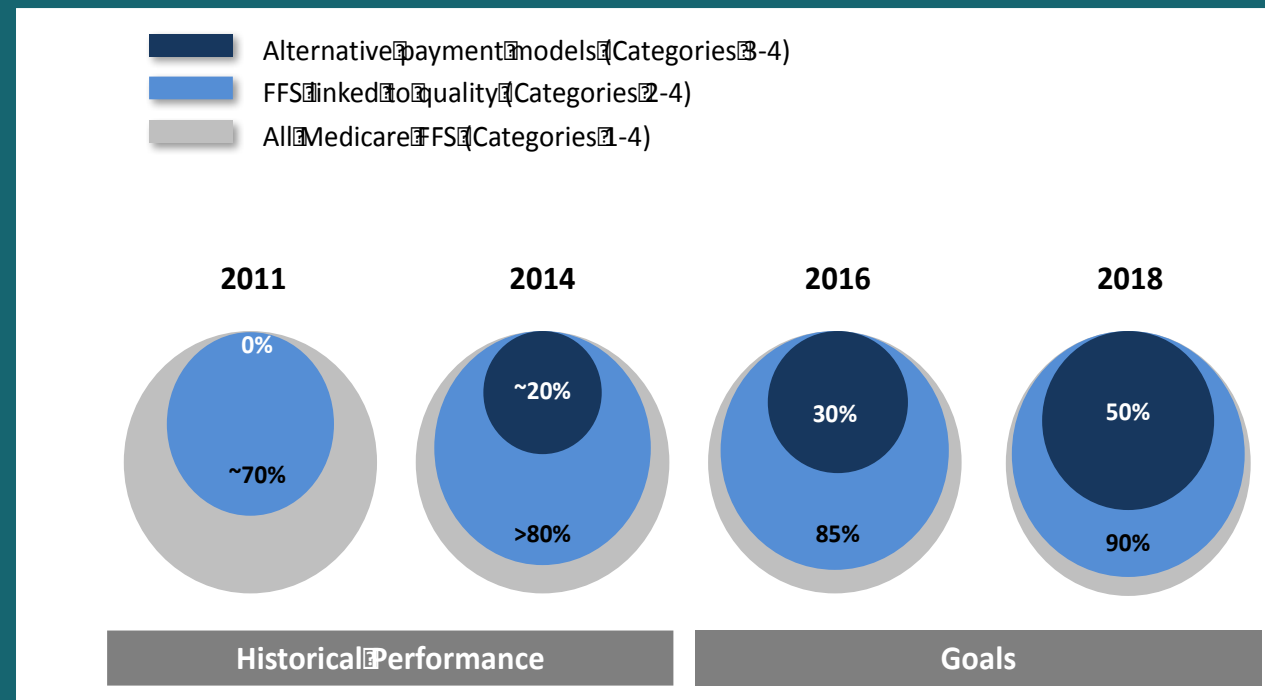
Product Class	Actual R&D costs (\$M)	FDA regulatory costs (\$M)	Total cost concept to FDA approval (\$M)	% cost due to FDA	FDA time from 1 st communication to approval (months)
Low/moderate risk 510(k)	7	24	31	77%	31 mo
Higher risk PMA	19	75	94	80%	54 mo

Survey of 204 medical technology companies published in 2010. J. Makower, A. Meer, "FDA impact on U.S. medical technology innovation," November 2010

Top 5 Trends

Trend 3: Shift from volume to value

- Not a universal development, but an increasing trend in western countries
- Pressure on radiology to
 - More robustly justify its contribution to clinical outcomes
 - Foster closer ties between radiology and various service lines



2015 US Medicare targets for quality-linked reimbursements



Top 5 Trends

Trend 4: integrated diagnosis and precision medicine

- Digitization of medicine (radiology, EHR, pathology, etc) providing profound opportunity for integrating data
- Multidisciplinary view of patient driving towards precision medicine
- Will have to make significant use of AI

Top 5 Trends

Trend 5: Virtualization of radiology

- Continuing financial pressures and consolidation driving increasing demand for alternative delivery models, including virtualization of radiology services
 - Scalability of service to accommodate increasing patient volumes
 - Agility to flex capacity according to demand (nights, holidays, specialties)
- Variability and disparity of care quality between hub and spoke needs to be reduced

