



## University of Iowa Health Care

Presentation to

The Board of Regents, State of Iowa
October 21-22, 2015

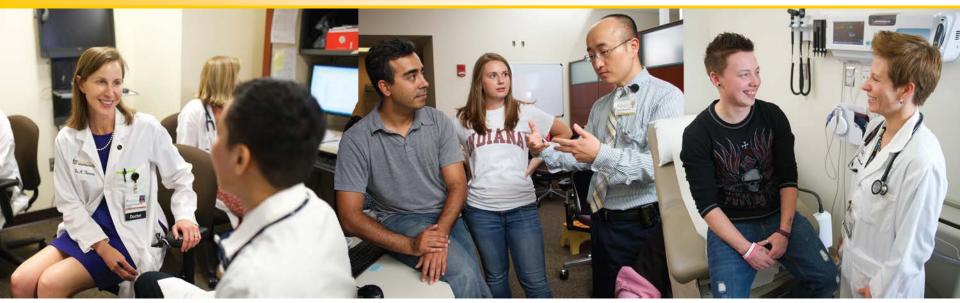
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## Agenda



- Opening Remarks (Robillard)
- Operating and Financial Performance (Kates, Fisher)
- Strategic Plan Update (Robillard)
- Faculty Presentation: Precision Cancer Medicine (Drs. Weiner, Karandikar, Bossler)





## University of Iowa Hospitals & Clinics Operating and Financial Performance Update

Ken Kates, Associate Vice President & Chief Executive Officer, UI Hospitals & Clinics

Ken Fisher, Associate Vice President for Finance and Chief Financial Officer, UI Hospitals & Clinics

### **Volume Indicators**

#### Fiscal Year to Date September 2015



Operating Review (YTD)	Actual	Budget	Prior Year *	Variance to Budget	% Variance to Budget	Variance to Prior Year	% Variance to Prior Year
Discharges	8,298	8,138	7,919	160	2.0% 🔘	379	4.8%
Patient Days	53,286	52,969	50,890	317	0.6% (	2,396	4.7%
Length of Stay	6.48	6.41	6.33	0.07	1.1% 🔘	0.15	2.4%
Average Daily Census	579.19	575.75	553.15	3.44	0.6% 🔾	26.04	4.7%
Total Surgeries	7,590	7,763	7,354	(173)	-2.2% 🔾	236	3.2%
- Inpatient	3,743	3,182	3,012	561	17.6%	731	24.3%
- Outpatient	3,847	4,581	4,342	(734)	-16.0%	(495)	-11.4%
ED Visits	14,888	15,330	14,696	(442)	-2.9%	192	1.3% 🔾
Total Clinic Visits	211,982	219,650	200,272	(7,668)	-3.5%	11,710	5.9%

\* from ongoing operations

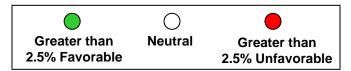


## Discharges by Type

### Fiscal Year to Date September 2015



Operating Review (YTD)	Actual	Budget	Prior Year	Variance to Budget	% Variance to Budget	Variance to Prior Year	% Variance to Prior Year
Adult Medical	2,350	2,324	2,275	26	1.1% 🔾	75	3.3%
Adult Surgical	4,438	4,123	4,031	315	7.6%	407	10.1%
Adult Psych	290	363	355	(73)	-20.1%	(65)	-18.3%
Subtotal – Adult	7,078	6,810	6,661	268	3.9%	417	6.3%
Pediatric Medical & Surgical	876	956	895	(80)	-8.4%	(19)	-2.1%
Pediatric Critical Care	215	205	200	10	4.9%	15	7.5%
Pediatric Psych	129	167	163	(38)	-22.8%	(34)	-20.9%
Subtotal – Pediatrics w/o newborn	1,220	1,328	1,258	(108)	-8.1%	(38)	-3.0%
Newborn	397	429	432	(32)	-7.5%	(35)	-8.1%
TOTAL w/o Newborn	8,298	8,138	7,919	160	2.0%	379	4.8%



## Discharge Days by Type



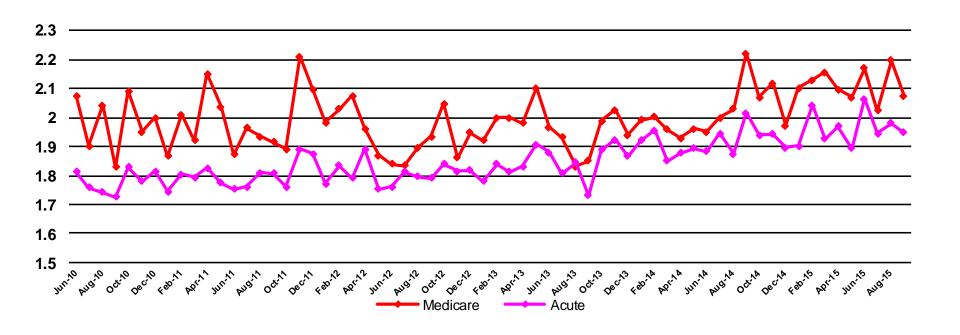


Operating Review (YTD)	Actual	Budget	Prior Year	Variance to Budget	% Variance to Budget	Variance to Prior Year	% Variance to Prior Year
Adult Medical	13,161	12,776	12,301	385	3.0%	860	7.0%
Adult Surgical	24,320	22,149	21,312	2,171	9.8%	3,008	14.1%
Adult Psych	5,292	5,697	5,479	(405)	-7.1%	(187)	-3.4%
Subtotal – Adult	42,773	40,622	39,092	2,151	5.3%	3,681	9.4%
Pediatric Medical & Surgical	4,463	4,670	4,406	(207)	-4.4%	57	1.3%
Pediatric Critical Care	5,356	5,456	5,251	(100)	-1.8%	105	2.0%
Pediatric Psych	1,203	1,411	1,354	(208)	-14.7%	(151)	-11.2%
Subtotal – Pediatrics w/o newborn	11,022	11,537	11,011	(515)	-4.5%	11	0.1%
Newborn	887	926	964	(39)	-4.2%	(77)	-8.0%
TOTAL w/o Newborn	53,795	52,159	50,103	1,636	3.1%	3,692	7.4%

Greater than Neutral Greater than 2.5% Favorable 2.5% Unfavorable

## Case Mix Index



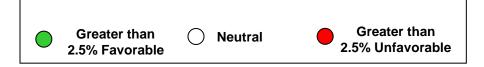


## Inpatient Surgeries – by Clinical Department

Fiscal Year to Date September 2015



Operating Review (YTD)	Actual	Budget	Prior Year	Variance to Budget	% Variance to Budget	Variance to Prior Year	% Variance to Prior Year
Cardiothoracic	267	276	253	(9)	-3.3%	14	5.5%
Dentistry	128	77	47	51	66.2%	81	172.3%
General Surgery	1,034	915	830	119	13.0%	204	24.6%
Gynecology	215	200	199	15	7.5%	16	8.0%
Neurosurgery	575	479	488	96	20.0%	87	17.8%
Ophthalmology	101	33	30	68	206.1%	71	236.7%
Orthopedics	936	749	772	187	25.0%	164	21.2%
Otolaryngology	189	195	175	(6)	-3.1%	14	8.0%
Radiology – Interventional	61	36	9	25	69.4%	52	577.8%
Urology w/ Procedure Ste.	237	222	209	15	6.8%	28	13.4%
Total	3,743	3,182	3,012	561	17.6%	731	24.3%
Solid Organ Transplants	99	83	90	16	19.3%	9	10.0%



## Outpatient Surgeries – by Clinical Department

Fiscal Year to Date September 2015



Operating Review (YTD)	Actual	Budget	Prior Year	Variance to Budget	% Variance t Budget	0	Variance to Prior Year	% Variance to Prior Year
Cardiothoracic	13	16	16	(3)	-18.8%		(3)	-18.8%
Dentistry	125	142	157	(17)	-12.0%		(32)	-20.4%
Dermatology	6	8	7	(2)	-25.0%		(1)	-14.3%
General Surgery	592	722	647	(130)	-18.0%		(55)	-8.5%
Gynecology	184	221	202	(37)	-16.7%		(18)	-8.9%
Internal Medicine	5	1	2	4	400.0%		3	150.0%
Neurosurgery	141	231	222	(90)	-39.0%		(81)	-36.5%
Ophthalmology	902	938	945	(36)	-3.8%		(43)	-4.6%
Orthopedics	809	1,093	1,023	(284)	-26.0%		(214)	-20.9%
Otolaryngology	541	642	605	(101)	-15.7%		(64)	-10.6%
Pediatrics	1	1	0	0	0.0%	$\bigcirc$	1	100.0%
Radiology – Interventional	31	24	2	7	29.2%		29	1450.0%
Urology w/ Procedure Ste.	497	542	514	(45)	-8.3%		(17)	-3.3%
Total	3,847	4,581	4,342	(734)	-16.0%		(495)	-11.4%

	0	•
Greater than 2.5% Favorable	Neutral	Greater than 2.5% Unfavorable

# Emergency Department





Operating Review (YTD)	Actual	Budget	Prior Year	Variance to Budget	% Variance to Budget	Variance to Prior Year	% Variance to Prior Year
ED Visits	14,888	15,330	14,696	(442)	-2.9%	192	1.3% 🔘
ED Admits	4,694	4,562	4,366	132	2.9%	328	7.5%
ED Conversion Factor	31.5%	29.8%	29.7%		5.7% 🔵		6.1%
ED Admits / Total Admits	56.9%	52.4%	54.8%		8.6%		3.8%

Greater than Neutral Greater than 2.5% Favorable 2.5% Unfavorable

## Clinic Visits by Specialty

#### Fiscal Year to Date September 2015



Operating Review (YTD)	Actual	Budget	Variance to Budget	% Variance to E	Budget
Burn Clinic	839	977	(138)	-14.1%	
Center for Disabilities & Development	2,329	2,468	(139)	-5.6%	
Center for Digestive Disease	5,510	4,810	700	14.6%	
Clinical Cancer Center	13,408	13,902	(494)	-3.6%	
Dermatology	5,858	5,677	181	3.2%	
General Surgery	4,581	3,915	666	17.0%	
Hospital Dentistry	4,221	4,204	17	0.4%	O
Internal Medicine	7,223	8,582	(1,359)	-15.8%	
Neurology	3,860	3,589	271	7.6%	
Neurosurgery	3,243	2,649	594	22.4%	
Obstetrics/Gynecology	15,173	15,175	(2)	0.0%	0
Ophthalmology	16,234	18,018	(1,784)	-9.9%	
Orthopedics	18,063	19,468	(1,405)	-7.2%	
Otolaryngology	4,877	5,963	(1,086)	-18.2%	
Pediatrics	15,044	15,106	(62)	-0.4%	0
Primary Care (non-IRL)	42,096	42,955	(859)	-2.0%	$\bigcirc$
Psychiatry	8,753	8,711	42	0.5%	0
Urology	2,455	2,868	(413)	-14.4%	
UI Heart Center	4,833	4,643	190	4.1%	
IRL	33,382	35,970	(2,588)	-7.2%	
Total	211,982	219,650	(7,668)	-3.5%	•

Greater than 2.5% Favorable

O Neutral

Greater than 2.5% Unfavorable

## **Total Clinic Visits by Location**

#### Fiscal Year to Date September 2015



**FY16 Actual** 

FY15 Actual \*

		FY16 A	ctuai		FY15 Actual *					
Operating Review (YTD)	On-Site	IRL	UICMS & QuickCare	Total	On-Site	IRL	UICMS & QuickCare	Total	Variance to Prior Year	%
Family Medicine	11,514		30,582	42,096	12,771		29,006	41,777	319	0.8%
General Internal Medicine		6,971		6,971		6,277		6,277	694	11.1%
Pediatrics		5,204		5,204		5,105		5,105	99	1.9%
Subtotal - Primary Care	11,514	12,175	30,582	54,271	12,771	11,382	29,006	53,159	1,112	2.1%
Burn Clinic	839			839	868			868	(29)	-3.3%
Center for Disabilities & Development	2,329			2,329	2,221			2,221	108	4.9%
Center for Digestive Disease	5,510	1,056		6,566	4,674	871		5,545	1,021	18.4%
Clinical Cancer Center	14,292	448		14,740	13,750	330		14,080	660	4.7%
Dermatology	5,858	2,311		8,169	5,646	1,854		7,500	669	8.9%
General Surgery	4,581			4,581	3,935			3,935	646	16.4%
Hospital Dentistry	4,221			4,221	3,707			3,707	514	13.9%
Internal Medicine	7,217	1,903		9,120	7,490	1,473		8,963	157	1.8%
Neurology	3,860			3,860	3,494			3,494	366	10.5%
Neurosurgery	3,243			3,243	2,905			2,905	338	11.6%
Obstetrics/Gynecology	15,173	6,106		21,279	12,968	5,565		18,533	2,746	14.8%
Ophthalmology	16,234	2,465		18,699	16,169	2,119		18,288	411	2.3%(
Orthopedics	18,063	152		18,215	18,524	81		18,605	(390)	-2.1%(
Otolaryngology	4,877	1,536		6,413	5,033	1,053		6,086	327	5.4%
Pediatrics	15,032			15,032	13,334			13,334	1,698	12.7%
Psychiatry	8,753			8,753	8,215			8,215	538	6.6%
Urology	1,589	2,889		4,478	2,816	2,144		4,960	(482)	-9.7%
UI Heart Center	4,833	2,341		7,174	4,203	1,671		5,874	1,300	22.1%
Subtotal – Specialty Care	136,504	21,207		157,711	129,952	17,161		147,113	10,598	7.2%
Total	148,018	33,382	30,582	211,982	142,723	28,543	29,006	200,272	11,710	5.9%





## **Pediatrics Clinic Visits by Location**

Fiscal Year to Date September 2015



FY16 A	ctua	
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#### FY15 Actual \*

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Operating Review (YTD)	On-Site	IRL	UICMS & QuickCare	Total	On-Site	IRL	UICMS & QuickCare	Total	Variance to Prior Year	%
Family Medicine	1,024		7,765	8,789	1,097		7,372	8,469	320	3.8%
General Internal Medicine		3		3		3		3	0	0.0%(
Pediatrics		5,073		5,073		4,962		4,962	111	2.2%
Subtotal - Primary Care	1,024	5,076	7,765	13,865	1,097	4,965	7,372	13,434	431	3.2%
Burn Clinic	0			0	212			212	(212)	-100.0%
Center for Disabilities & Development	2,329			2,329	2,221			2,221	108	4.9%
Center for Digestive Disease	7			7	10			10	(3)	-30.0%
Clinical Cancer Center	23			23	22			22	1	4.5%
Dermatology	496	536		1,032	485	427		912	120	13.2%
General Surgery	131			131	57			57	74	129.8%
Hospital Dentistry	587		_	587	449		_	449	138	30.7%
Internal Medicine	9	52		61	18	56		74	(13)	-17.6%
Neurology	128			128	48			48	80	166.7%
Neurosurgery	512			512	464			464	48	10.3%(
Obstetrics/Gynecology	145	23		168	177	37		214	(46)	-21.5%
Ophthalmology	2,655	160		2,815	2,466	170		2,636	179	6.8%
Orthopedics	3,091			3,091	3,460			3,460	(369)	-10.7%
Otolaryngology	802	940		1,742	1,096	515		1,611	131	8.1%(
Pediatrics	13,136			13,136	12,463			12,463	673	5.4%(
Psychiatry	2,186			2,186	2,111			2,111	75	3.6%(
Urology	65	779		844	89	769		858	(14)	-1.6%
UI Heart Center	5	61		66	5	44		49	17	34.7%
Subtotal – Specialty Care	26,307	2,551	0	28,858	25,853	2,018	0	27,871	987	3.5%
Total	27,331	7,627	7,765	42,723	26,950	6,983	7,372	41,305	1,418	3.4%(





## **Adult Clinic Visits by Location**

#### Fiscal Year to Date September 2015



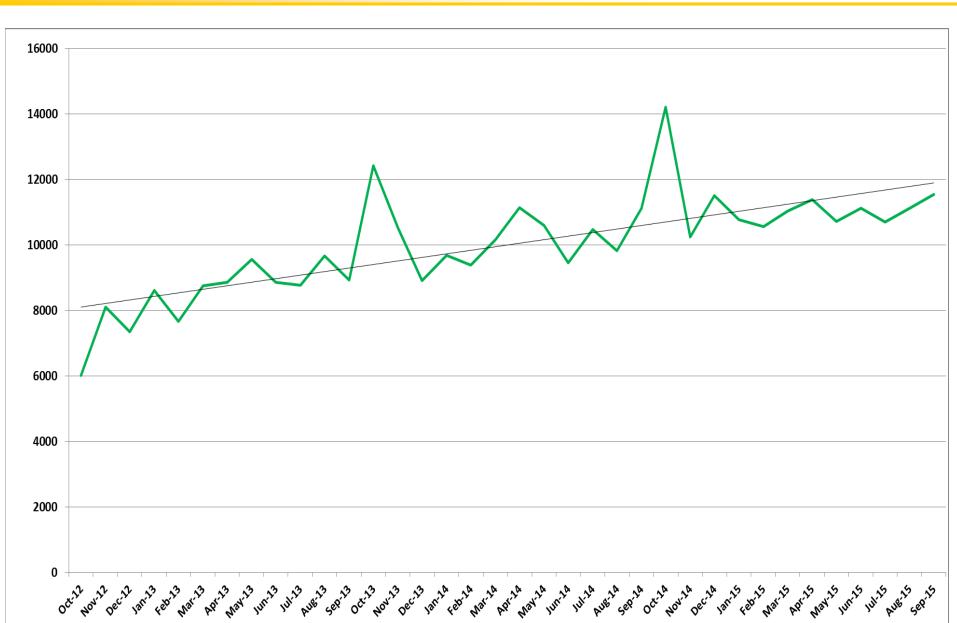
**FY16 Actual** 

FY15 Actual \*

FY16 Actual FY15 Actual *										
Operating Review (YTD)	On-Site	IRL	UICMS & QuickCare	Total	On-Site	IRL	UICMS & QuickCare	Total	Variance to Prior Year	%
Family Medicine	10,490		22,817	33,307	11,674	1	21,634	33,308	(1)	0.0%
General Internal Medicine		6,968	T	6,968	Ţ	6,274		6,274	694	11.1%
Pediatrics		131		131		143		143	(12)	-8.4%
Subtotal - Primary Care	10,490	7,099	22,817	40,406	11,674	6,417	21,634	39,725	681	1.7%
Burn Clinic	839			839	656			656	183	27.9%
Center for Digestive Disease	5,503	1,056		6,559	4,664	871		5,535	1,024	18.5%
Clinical Cancer Center	14,269	448		14,717	13,728	330		14,058	659	4.7%
Dermatology	5,362	1,775		7,137	5,161	1,427		6,588	549	8.3%
General Surgery	4,450			4,450	3,878			3,878	572	14.8%
Hospital Dentistry	3,634			3,634	3,258	1		3,258	376	11.5%
Internal Medicine	7,208	1,851		9,059	7,472	1,417		8,889	170	1.9%
Neurology	3,732			3,732	3,446	1		3,446	286	8.3%
Neurosurgery	2,731			2,731	2,441			2,441	290	11.9%
Obstetrics/Gynecology	15,028	6,083		21,111	12,791	5,528		18,319	2,792	15.2%
Ophthalmology	13,579	2,305		15,884	13,703	1,949		15,652	232	1.5%
Orthopedics	14,972	152		15,124	15,064	81		15,145	(21)	-0.1%
Otolaryngology	4,075	596		4,671	3,937	538		4,475	196	4.4%
Pediatrics	1,896			1,896	871	1		871	1,025	117.7%
Psychiatry	6,567			6,567	6,104			6,104	463	7.6%
Urology	1,524	2,110		3,634	2,727	1,375		4,102	(468)	-11.4%
UI Heart Center	4,828	2,280		7,108	4,198	1,627		5,825	1,283	22.0%
Subtotal – Specialty Care	110,197	18,656		128,853	104,099	15,143		119,242	9,611	8.1%
Total	120,687	25,755	22,817	169,259	115,773	21,560	21,634	158,967	10,292	6.5%

## **lowa River Landing Ambulatory Visits**





## Comparative Accounts Receivable

at September 30, 2015

-\$2.5 -\$5.0

Sep-

Jan-

12

11

12

May-

12

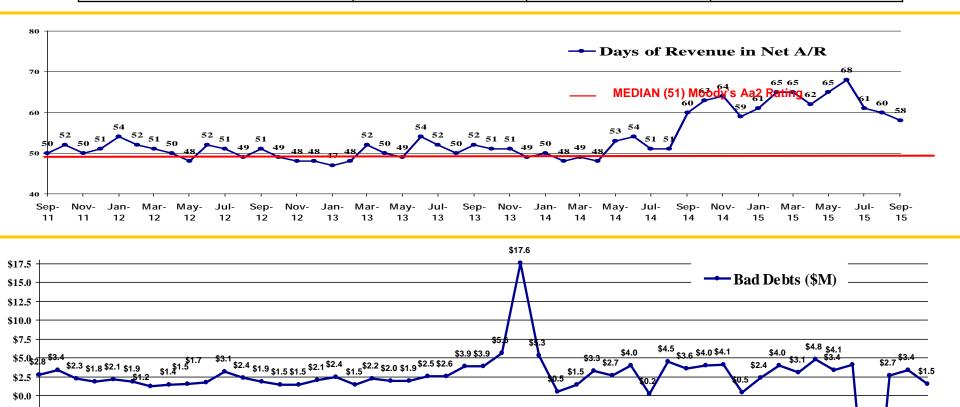
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12



	June 30, 2014	June 30, 2015 (preliminary)	September 30, 2015
Net Accounts Receivable	\$176,695,824	\$236,775,239	\$215,583,483
Net Days in AR	54	68	58



Nov-

13

Jan-

14

Mar-

13

Jan-

13

May-

13

Jul-

13

Sep-

15

Mar-

15

May-

15

15

Jan-

15

## **UIHC Comparative Financial Results**



Fiscal Year-to-Date September 2015

**Dollars in Thousands** 

NET REVENUES:	Actual	Budget	Prior Year	Variance to Budget	% Variance to Budget	Variance to Prior Year	% Variance to Prior Year
Patient Revenue	\$334,779	\$340,222	\$303,306	(\$5,443)	-1.6%	\$31,473	10.4%
Other Operating Revenue	12,840	13,064	13,631	(224)	-1.7%	(791)	-5.8%
Total Revenue	\$347,619	\$353,286	\$316,937	(\$5,667)	-1.6%	\$30,682	9.7%
EXPENSES:							
Salaries and Wages	\$160,971	\$168,797	\$148,663	(\$7,826)	-4.6%	\$12,308	8.3%
General Expenses	150,614	153,289	131,037	(2,675)	-1.8%	19,577	14.9%
Operating Expense before Capital	\$311,585	\$322,086	\$279,700	(\$10,501)	-3.3%	\$31,885	11.4%
Cash Flow Operating Margin	\$36,034	\$31,200	\$37,237	\$4,834	15.5%	(\$1,203)	-3.2%
Capital- Depreciation and Amortization	17,783	20,177	18,881	(2,394)	-11.9%	(1,098)	-5.8%
Total Operating Expense	\$329,368	\$342,263	\$298,581	(\$12,895)	-3.8%	\$30,787	10.3%
Operating Income	\$18,251	\$11,023	\$18,356	\$7,228	65.6%	(\$105)	-0.6%
Operating Margin %	5.3%	3.1%	5.8%		2.2%		-0.5%
Gain (Loss) on Investments	(16,500)	5,548	(4,282)	(22,048)	-397.4%	(12,218)	-285.3%
Other Non-Operating	(1,711)	(2,313)	(3,568)	602	26.0%	1,857	52.1%
Net Income	\$40	\$14,258	\$10,506	(\$14,218)	-99.7%	(\$10,466)	-99.6%
Net Margin %	0.0%	4.0%	3.4%		-4.0%		-3.4%

<sup>\*</sup> Gain/(Loss) on Investments based on information available at close. Final investment return for this period is reflected in Fiscal Year to Date returns in the subsequent reporting cycle.





## Strategic Plan Update

Jean Robillard, MD Vice President for Medical Affairs





## UI Health Care Strategic Plan—FY 2014 - 2016



Mission		Vis	ion	Val	UES World Class Medicine.
Changing Medicin	e. Changing Lives.	World Class People. World Class	Medicine. For lowa and the World.	I CARE. Innovation, Collaboration,	Accountability, Respect, Excellence.
Clinical Quality & Service Goal	Research Goal	Education Goal	People Goal	Diversity Goal	Growth and Finance Goal
Provide world class healthcare and service to optimize health for the people of lowa and beyond.	Advance world class discovery through outstanding, innovative biomedical and health services research.	Develop world class health professionals and scientists through excellent, innovative and humanistic educational curricula for learners at every stage.	Foster a culture of excellence that values, engages and enables our workforce.	Create an environment of inclusion where individual differences are respected and all feel welcome.	Optimize a performance-driven business model that assures financial success.
Accountable Leaders	Accountable Leaders	Accountable Leaders	Accountable Leaders	Accountable Leaders	Accountable Leaders
Ken Kates, Theresa Brennan, Kenneth Rempher, Scott Turner, Sabi Singh, Doug Van Daele	Debra Schwinn, Pat Winokur, Gary Rosenthal Sharon Tucker	Debra Schwinn, Donna Hammond, Mark Wilson, Christopher Cooper, LouAnn Montgomery	Jana Wessels, Kenneth Rempher	Sherree Wilson & Jean Robillard (VPMA Cabinet)	Ken Fisher, Ken Kates, Debra Schwinn, Sabi Singh, Scott Turner
Strategies	Strategies	Strategies	Strategies	Strategies	Strategies
GST. Optimize patients safety GSZ. Unsize occurate and complete coding of documentation GS3. Improve tissely access to case GS4. Deliver consistent service accelerace GS5. Design and implement innovative care models GS5. Design and implement innovative care models GS5. Design and implement innovative care models GS5. Exact defects to improve health, occess, quality and reduce tragmentation in the health care delivery system in colleboration with UI Health Alliance and other commantly partners GS7. Build and stancing programmatic priorities: Cancer Cancer Chicago Chicago Chicago Chicago Chicago Chicago Timospiolio Timospiolio Timospiolio Timospiolio Optimize UIV per and consist facility of colors of colors, including aging and age-valued devisions GS6. Optimize UIV per perstrolant effectiveness locally with UBIC and across the Juliance	11. Bezrul, develop, and relatin a diverse cade of enotic class investigators and support the randomic development  12. Indexity areas of excellence in basic research in which to prioritize Mutre growth and development femorisoritizes, discherizations, discherizations, discherizations, discherizations, discherizations, discherizations, and implements evidence-based practices into routent critical practice settings and across till behalf hilliams.  15. Beginner discherization state discherization including one cores  16. Beginner and grass schedulic infrastructure including one cores  16. Beginner discherization state discherization including one cores  16. Beginner discherization in discherization in control of the discherization in control of the discherization in control of the discherization in the discherization in the discherization in targeted draws to meet common goals  17. Strengthen interprets ensured business model  18. Strengthen enterprise research business model	Complete redicuted for two immovative mechanisms used UMC curriculars.  2. Ricrust, develope and relatin discress world class facturity, fellows, residents and statistics.  2. Foster immovation through greater integration across the continuum of UME, OSCEP, CME, and CME.  5. Ricrogate and remark excellence in teaching, find creative ways to furnit teaching.  6. Cuttwist critical thirtiding, an environment of curricity and life-long learning, a spirit of lengthy, and a passion for excellence.  7. Emphastics thirting and passion for excellence growth and the complete professionals in bispressip admits on the professional in the proper patients.  2. Despire a value of the professional interventional control of the professional in the proper patients.  2. Despire a value of the professional intervention of the professional interven	P.L. Continues to develop tables of this the organization and define performance expectations for all expectations for all expectations for all expectations are proposed in charging individuals from groups traditionally under expectation for accidence medicine.  P. Emuse that all U Health Local employees receive appropriate training regarding equitations's Mission, below has disconting propriate training and encourages strong personal representability, accountability and exponential reflected based advantage organizational global.  P. Protein a recognized continues and reward a confliction and collaboration.  P. Martican Magnot recognizion program designation to attract and relata a world.  P. Bevelop and engineement to Confliction bearing, innovation and collaboration appropriate to our workfloor.  P. Confliction to develop infinite relation in the confliction of the confli	D1. Footar a postilive and evisioning environment by instanting a culture of respect, inclusion and regular opportunity. D2. Develop and implement 2014-2017 COOM Strategic Owners by Resident 2015. Provide a name of deversely decident, cultural environment and acclimation programs for members of the UR Health Care community. D. Develop and regiment innovative, reflective recursing and propries installatives perver flowards under represented groups. D. Propure to acclimate and confidence of the UR Health Care Community. D. Propure to acclimate the conduct (ME standards OS 11s. MS-8, ED-21, ED-22) felated to diversity, inclusion and culturally responsive care for 2017 record. D. Each Accountable Leader will advance diversity in all strategies	GF1. Complete evaluation of clinical programs based on all three missions and rain's all core, flexibility, private or marginal. GF2. Divelop and implement basiness model for long film growth of targeted clinical programs. GF3. Divelop and implement basiness model for long film growth or developing healthcare delivery system, including ACDs. First charling, gain shalthcare delivery system, including ACDs. First charling, gain shalthcare delivery system including ACDs. First charling, gain shalthcare delivery system including ACDs. First charling, gain shalthcare delivery some constitution of the control of the con
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<ul> <li>Data warehousing capabilities incorporating external data</li> <li>Device integration into Epic</li> </ul>					
Metrics	Metrics	Metrics	Metrics	Metrics	Metrics
CMS Reportable Events  Advises Drog Events  CMS Reportable Events  CMS RESID AMTI, 12V & C DR Ratins  CMS RESID AMTI, 12V & C DR Ratins  Martially induse  Backmission Rate  Bood Management  Nurse Sensitive Medicates  Case weighted Documentation Opportunity Points (Creefs)  100-16 Provider Training Domphelon  Case weighted Documentation Opportunity Points (Creefs)  100-16 Provider Training Domphelon  Training Commission  Commission of Commission  Training Commission  Training Commission  Training Commission  Person of Intraining complete  Length of stay; Same days access  First-case or demissative (Main OR)  Same days access  First-case or demissative (Main OR)  Vol. 19 American Same Same Same Same Same Same Same Same	Rocultiment and relation of a dwarre boolity as missioned by annual dening right data in the corporation of C1 than Dices Boolity - plan of the corporation of C1 than Dices Boolity - plan on NHI great reviews  22 22 23 24 25 25 26 26 27 27 28 28 28 28 28 28 28 28 28 28 28 28 28	1 USMLE scorce 1 Placements of operations, short term and long term 1 Placements of operations, proceeding programs and professional schools 1 Sobiothership (see if professional programs and professional schools 1 Sobiothership (see if professional programs and professional schools 1 Sobiothership (see if professional professional) impacting encountries in structure of the control term of the control t	P1 4 P10  • St performance appraisals completed  P2 4 P10  • Time to hise  1 St staff completing overlation within 90 days of hire  • St staff through oil Service Excellations  P4  • Illours worked on hours paid  • It clisactes completing Distributify program and deployed to existing or new intellatives  Magnet intollatives  • Magnet ethnium maintened  9  • Staff encoded on ISMs ISSN and other button support programs  P9  • Compliance tracking system developed and implemented	2012 climate survey for IID students completed and reported Exterprise wide set want tool conscient Constitution of the set of conscient Constitution of the set of conscient Constitution of the set of constitution of the set of constitution Constitution of the set of constitution of the set of the set of conscient Set of the set of the set of constitution of the set of the set of the set of conscient of the set of	GFT  Operating manages established for each beariness unit  Flendels brought variance of frem their 20% for each business unit  Volume methods for each business sint including at least expotent  volume methods for each business sint including at least expotent  administration, days, ACD Sins separable depressent an inmidest,  sergical cases, ambitishing visib for each budget year.  Outly of periodicity for each business sint including visible and their control of their control

### Mission



# Changing Medicine. Changing Lives.®

## Changing Medicine.

- ...through pioneering discovery
- . . .innovative inter-professional education
- . . .delivery of superb clinical care and an extraordinary patient experience
- . . .in a multi-disciplinary, collaborative, team-based environment.

## Changing Lives.

- ... preventing and curing disease
- ...improving health and well-being
- ...assuring access to care
- ... for people in lowa and throughout the world.

### Vision



## World-class people.

...building on our greatest strength.

World-class people.

World-class medicine.

For lowa and the world.

#### World-class medicine.

. . . creating a new standard of excellence in integrated patient care, research and education.

### For lowa and the world.

. . . making a difference in quality of life and health for generations to come.

### **Values**



I pledge my individual commitment to UI Health Care's values because I CARE about:

#### **Innovation**

We seek creative ways to solve problems.

#### **Collaboration**

We believe teamwork is the best way to work.

## **Accountability**

We behave ethically, act openly and with integrity in all that we do, taking responsibility for our actions.

## Respect

We honor diversity and recognize the worth and dignity of every person.

#### Excellence

We strive to achieve excellence in all that we do.

### Goals



## CLINICAL QUALITY & SERVICE

 Provide world-class health care and service to optimize health for the people of Iowa and beyond.

#### RESEARCH

2. Advance world-class discovery through outstanding, innovative biomedical and health services research.

#### **EDUCATION**

3. Develop world-class health professionals and scientists through excellent, innovative and humanistic educational curricula for learners at every stage.

#### **PEOPLE**

4. Foster a culture of excellence that values, engages and enables our workforce.

**DIVERSITY** 

5. Create an environment of inclusion where individual differences are respected and all feel welcome.

## GROWTH & FINANCE

6. Optimize a performance-driven business model that assures financial success.

# Strategies—Clinical Quality & Service



CLINIC	CLINICAL QUALITY & SERVICE				
QS1	Optimize patient safety				
QS2	Ensure accurate and complete coding of documentation				
QS3	Improve timely access to care				
QS4	Deliver consistent service excellence				
QS5	Design and implement innovative care models				
QS6	Lead efforts to improve health, access, quality and reduce fragmentation in the health care delivery system in collaboration with UI Health Alliance and other community partners				
QS7	Build and sustain programmatic priorities (cancer, children's services, diabetes, heart & vascular, neurosciences, primary care, orthopaedics, transplant, women's health, and other emerging areas of clinical focus, including aging and age-related diseases)				
QS8	Optimize UIP operational effectiveness locally with UIHC and across the UI Health Alliance				

# Strategies—Research



RESE	ARCH
R1	Recruit, develop, and retain a diverse cadre of world-class investigators and support their academic development
R2	Identify areas of excellence in basic research in which to prioritize future growth and development (neuroscience, diabetes, cardiopulmonary, genomics)
R3	Expand existing research that disseminates and implements evidence-based practices into routine clinical practice settings and across UI Health Alliance
R4	Integrate genomics with clinical care
R5	Improve and grow scientific infrastructure including new cores
R6	Nurture the development of high quality, high reward interdisciplinary scientific programs, especially those with potential for tech transfer and/or start-up companies
R7	Strengthen informatics capabilities for all research areas
R8	Collaborate with other UI Colleges, CTSA Consortium and UI Health Alliance in targeted areas to meet common goals
R9	Strengthen enterprise research business model

# Strategies—Education



EDUC	ATION
E1	Complete roll-out of new innovative mechanism-based UME curriculum
E2	Recruit, develop and retain diverse world class faculty, fellows, residents and students
E3	Foster innovation through greater integration across the continuum of UME, OSCEP, GME, and CME
E4	Limit medical student debt
<b>E</b> 5	Recognize and reward excellence in teaching; find creative ways to fund teaching
<b>E</b> 6	Cultivate critical thinking, an environment of curiosity and life-long learning, a spirit of inquiry, and a passion for excellence
E7	Emphasize interprofessional education (IPE) across all health science professionals
E8	Deepen academic training for clinicians through creative faculty/fellowships

# Strategies—People



PEOP	LE
P1	Continue to develop talent within the organization and define performance expectations for all
P2	Seek, hire and retain outstanding people including individuals from groups traditionally under-represented in academic medicine
P3	Ensure that all UI Health Care employees receive appropriate training regarding organization's Mission, Vision, Values and Goals
P4	Engage staff and encourage strong personal responsibility, accountability and empowerment directed toward achieving organizational goals
P5	Promote programs that recognize and reward excellence
P6	Foster an environment of continual learning, innovation and collaboration
P7	Maintain Magnet recognition program designation to attract and retain a world-class workforce
P8	Develop and implement the Institute of Medicine <i>Future of Nursing</i> recommendations appropriate to our workforce
P9	Continue to develop infrastructure, technology and lean processes to support HR efforts
P10	Support organizational capacity to transform and embrace change

# **Strategies—Diversity**



DIVER	DIVERSITY				
D1	Foster a positive and welcoming environment by nurturing a culture of respect, inclusion and equal opportunity				
D2	Develop and implement 2014-2017 CCOM Strategic Diversity Plan				
D3	Provide a range of diversity education, cultural enrichment and acclimation programs for members of the UI Health Care community				
D4	Develop and implement innovative, effective recruiting and pipeline initiatives geared towards under-represented groups				
D5	Compliance with Liaison Committee on Medical Education standards (IS-16, MS-8, ED-21, ED-22) related to diversity, inclusion and culturally responsive care for 2017 review				
D6	Each Accountable Leader will advance diversity in all strategies				

## Strategies—Growth & Finance



GROW	GROWTH & FINANCE				
GF1	Complete evaluation of clinical programs based on all three missions and rank as to core (basic), growth or marginal				
GF2	Develop and implement business model for long-term growth of targeted clinical programs				
GF3	Develop and implement business model to support the evolving healthcare delivery system, including ACOs, risk sharing, gain sharing or bundled payments				
GF4	Maintain capital plan to address core strategies				
GF5	Develop and implement strategies to strengthen relationships with Critical Access Hospitals, their physicians and other key community providers and work collaboratively to improve health and lower costs for populations living in these communities				
GF6	Develop a culture of philanthropy for the system				
GF7	Increase number of lives in ACO products				
GF8	Increase Pediatric market share population in advance of Children's Hospital opening in targeted regions				

## Information Technology



#### **CLINICAL QUALITY & SERVICE**

- Continue to develop the full capabilities of Epic to facilitate quality/safety and enhance professional and consumer relationships, including UI CareLink and MyChart
- Mobile technology
- Enhance sharing of clinical information with external providers
- Data warehousing capabilities incorporating external data
- Device integration into Epic

#### **RESEARCH**

- Develop the full capabilities of Epic to facilitate innovation in research.
- Develop IT infrastructure necessary for ICORE (IT, EPIC across UI Health Alliance, business metrics, clinical outcomes, decision science, genomics, and comparative effectiveness).
- Develop robust informatics infrastructure in synergy with university initiatives.

#### **EDUCATION**

- Develop the full capabilities of Epic to facilitate education.
- Provide training and support for "learners" to understand and implement patient-centered care and service.
- Provide tools for faculty to implement new teaching methods (availability of short podcasts from across the world, IT based testing, etc).

#### **PEOPLE**

- Training and development
- Communications
- Policy and practice changes
- Compliance tracking

#### **DIVERSITY**

- Web-based tools (self-audit, reporting progress on diversity initiatives, cultural competency resources, accreditation, etc.)
- Online tools/programs to facilitate cultural competency training
- Track participation in diversity programs

#### **GROWTH & FINANCE**

- Data-driven business planning
- Robust financial and performance-reporting systems
- Data warehouse and analytical capabilities for ACOs and population health

# Scorecard – Overall FY15 Performance



UI Health Care Strategic Plan Scorecard	FY14 Actual	FY15 Target	FY15 Actual	<u>Upshot</u>
OVERALL				
Honor Roll for Best Hospitals by US News and World Report	Ranked in 9 specialties	Improve	Ranked in 7 specialties	Not achieved
Children's Hospitals by US News and World Report	Ranked in 8 specialties	Improve	Ranked in 9 specialties	Achieved
Public Medical Schools ranking in Research by US News and World Report	11 <sup>th</sup>	Improve	11 <sup>th</sup>	Remained constant
Overall Medical School ranking in Research by US News and World Report	29 <sup>th</sup>	Improve	29 <sup>th</sup>	Remained constant
Public Medical Schools Primary Care ranking by US News and World Report	14 <sup>th</sup>	Improve	13 <sup>th</sup>	Achieved
Overall Medical Schools Primary Care ranking by US News and World Report	16 <sup>th</sup>	Improve	16 <sup>th</sup>	Remained constant
NIH Funding among Public Medical Schools	18 <sup>th</sup> (FY13)	Improve	20 <sup>th</sup> (FY14)	Not achieved
Moody's Bond Rating	Aa2	Maintain Aa2	Aa2	Achieved

# Scorecard – Clinical Quality & Service FY15 Performance



UI Health Care Strategic Plan Scorecard	FY14 Actual	FY15 Target	FY15 Actual	<u>Upshot</u>			
CLINICAL QUALITY & SERVICE							
Patient Satisfaction: a) Adult b) Pediatric c) Outpatient	a) 50 / 54 b) 30 / 51 c) 34 / 38 (FY14) / (Q4FY14)	90 <sup>th</sup> Percentile	a) 38 / 36 b) 64 / 70 c) 38 / 47 (FY15) / Q4FY15)	a) Not achieved b) Improved c) Improved			
HAI reduction: C diff infection rates	1.28/1000 patient days	Less than 1.0/1000 patient days	0.97/1000 patient days	Achieved			
Operating Room – First case on-time starts (Main OR)	93%	95%	93%	Remained constant			
Access: % new patients seen within 7 days of request				Data source change			
Readmission Rate (UHC All-cause Measure - Adult and Children)	11.62% (FY14)	10.38%	10.90%	Improved			
Length of Stay Index (excl. <u>Outliers</u> , Psych, Normal Newborn, & Neonates)	1.04 (FY14)	≤1.0	1.06	Not achieved			

# Scorecard – Research FY15 Performance



UI Health Care Strategic Plan Scorecard	FY14 Actual	FY15 Target	FY15 Actual	<u>Upshot</u>
RESEARCH				
Total extramural funding	\$203.6M	Total extramural funding increases or decreases by the same percentage as the NIH budget for FY15	\$223.9M	Achieved
Research revenue per net square foot	\$427	Maintain	\$421 Note: Added 55K NSF for PBDB	Partially achieved
Percent of extramurally funded faculty research effort	19.9%	Maintain	18.8%	Not achieved

# Scorecard – Education FY15 Performance



UI Health Care Strategic Plan Scorecard	FY14 Actual	FY15 Target	FY15 Actual	<u>Upshot</u>
EDUCATION				
Number of applications for medical school	3,502	Maintain	3,474	Slight decline
Mean MCAT scores: Verbal Reasoning, Physical Sciences, Biological Sciences	32.3	Maintain	32.2	Very slight decline
GPA of accepted applicants	3.76	Maintain	3.76	Achieved
Limit % increase in annual student medical debt compared to national benchmarks and prior year	UI Class of 2013 Average \$156K; National Average, All Schools \$150K	Reduce UI medical student debt to below national average	UI Class of 2014 Average Medical Debt of \$151 K; National Average Med, All Schools \$155 K	Achieved

# Scorecard – People FY15 Performance



UI Health Care Strategic Plan Scorecard	FY14 Actual	FY15 Target	FY15 Actual	<u>Upshot</u>
PEOPLE				
Develop and implement plan for improved on-boarding of staff - 100% of staff completing orientation within 60 days of hire.	100%	100%	100%	Achieved
Develop and deliver Service Excellence training to all staff	80% trained	85% trained	77.2% trained	Not achieved*
% of Performance Appraisals completed	100%	100%	100%	Achieved
% of Sexual Harassment Training Completed	100%	100%	100%	Achieved
Participation rate in 2014 Working at Iowa Survey (measuring staff satisfaction)	Did not exist in FY13	65% (UI Health Care)	62%	Not achieved

<sup>\*</sup>Training program suspended for several months during FY15

# Scorecard – Diversity FY15 Performance



UI Health Care Strategic Plan Scorecard	FY14 Actual	FY15 Target	FY15 Actual	<u>Upshot</u>
DIVERSITY				
Each department will develop a diversity plan and accompanying goals which adhere to and support the overall UIHC and CCOM Diversity Plan/Roadmap.	All departmental plans completed and entered into Diversity Goal reporting site.	Updated plans and goals fully implemented by end of June 2015.	80% (12/15) of administrative and 85% (22/26) academic departments submitted departmental plans.	Partially achieved
Launch CultureVision to UI Health Care community.	CultureVision agreement in place and implementation plan developed.	CultureVision is fully implemented, including Ambassador training for 100 employees.	CultureVision (CV) acquired and implemented; 100+ employees trained as CV Ambassadors.	Achieved
Develop and/or participate in outreach, pipeline and/or recruitment initiatives for persons from populations underrepresented in medicine and/or biomedical research.	Design and implement minimum of two outreach/pipeline programs and participate in a minimum of four recruitment events or programs.	Programs are completed and outcomes are reported.	UI Health Care STEM Education hosted 60 outreach and exhibitor programs; over 16,000 K-12 students in the state engaged in UI Health Care STEM Education experiences including 44 diverse groups totaling over 7,000 students.  The CCOM sponsored 10 different outreach and/or pipeline programs aimed at K-12 and undergraduate students.	Achieved
Each DEO will specify the metrics to be used to measure achievement of diversity goals.	Did not exist in FY14	Diversity goals (with accompanying metrics) achieved reported via DEO metric reporting site by May 2015.	85% (22/26) of DEOs identified diversity goals, strategies and metrics to be implemented in FY16.	Partially achieved

## Scorecard – Growth and Finance FY15 Performance



UI Health Care Strategic Plan Scorecard	FY14 Actual	FY15 Target	FY15 Actual	<u>Upshot</u>
GROWTH & FINANCE				
Admissions (excl. Normal Newborn and OP Observation)	30,762	31,821	31,748	Improved
UIHC Operating Margin %	4.6%	3.0%	6.2%	Achieved
UIP Operating Margin %	1.2%	2.35%	4.9%	Achieved
Outpatient Clinic Visits (including ETC and Hosp Dentistry)	867,591	870,801	888,996	Achieved
Surgical Cases (inpatient and outpatient)	29,180	30,653	29,958	Improved
Philanthropy	\$70M	\$72M	\$91.4M	Achieved

# Scorecard – Overall FY16 Targets



UI Health Care Strategic Plan Scorecard	FY15 Actual	FY16 Target
OVERALL		
Honor Roll for Best Hospitals by US News and World Report	Ranked in 7 specialties	Improve
Children's Hospitals by US News and World Report	Ranked in 9 specialties	Improve
Public Medical Schools ranking in Research by US News and World Report	11 <sup>th</sup>	Improve
Overall Medical School ranking in Research by US News and World Report	29 <sup>th</sup>	Improve
Public Medical Schools Primary Care ranking by US News and World Report	13 <sup>th</sup>	Improve
Overall Medical Schools Primary Care ranking by US News and World Report	16 <sup>th</sup>	Improve
NIH Funding among Public Medical Schools	20 <sup>th</sup> (FY14)	Improve
Moody's Bond Rating	Aa2	Maintain Aa2

## Scorecard – Clinical Quality & Service FY16 Targets



UI Health Care Strategic Plan Scorecard	FY15 Actual	FY16 Target
CLINICAL QUALITY & SERVICE		
Patient Satisfaction: % "Very Goods"  a) Adult b) Pediatric c) Outpatient	a) 52.6% b) 60.2%	a) 57.3% b) 64.2%
Goal: Improve 10% of gap	c) 71.1%	c) 74.0%
Risk Adjusted Mortality Index a) Adult b) Pediatric Goal: Maintain or improve index from FY15 baseline	a. 0.83 b. 1.06	a. 0.83 b. 1.00
HAI reduction: C diff infection rates  Goal: 10% reduction in rate	11.20	10.10
Readmission Rate (UHC All-cause Measure - Adult and Children) Goal: 10% reduction in rate	10.90%	9.81%
Length of Stay Index a) Adult b) Pediatrics Goal: Maintain or improve index from FY15 baseline	a88 b95	a88 b95
Access: % new patients seen within 7 days of request  Goal: Improve to 50%	35%	50%

# Scorecard – Research FY16 Targets



UI Health Care Strategic Plan Scorecard	FY15 Actual	FY16 Target
RESEARCH		
Total extramural funding (excluding philanthropy)	\$186M	\$190M
Research revenue per net square foot (excluding philanthropy)	\$350	Maintain
Percent of extramurally funded faculty research effort	18.8%	Maintain

# Scorecard – Education FY16 Targets



UI Health Care Strategic Plan Scorecard	FY15 Actual	FY16 Target
EDUCATION		
Number of applications for medical school	3,474	Maintain
Mean MCAT scores: Verbal Reasoning, Physical Sciences, Biological Sciences	32.2	Maintain
GPA of accepted applicants	3.76	Maintain
Limit % increase in annual student medical debt compared to national benchmarks and prior year	UI Class of 2014 Average Medical Debt of \$151 K; National Average Med, All Schools \$155 K	Reduce UI medical student debt to below national average

## Scorecard – People FY16 Targets



UI Health Care Strategic Plan Scorecard	FY15 Actual	FY16 Target
PEOPLE		
Develop and deliver Service Excellence training to all staff	77.2% trained	85%
% of Performance Appraisals completed	100%	100%
% of Sexual Harassment Training Completed	100%	100%
Compliance and Qualification Enterprise Wide System Go Live	NEW	Completion

## Scorecard – Diversity FY16 Targets



UI Health Care Strategic Plan Scorecard	FY15 Actual	FY16 Target
DIVERSITY		
Complete annual assessment of goals for the 2014-17 CCOM Strategic Diversity Roadmap.	Diversity goals, strategies and metrics have been identified and will be implemented in FY16.	Departmental assessment of diversity goals, strategies and metrics reported by June 2016.
Complete comprehensive strategic plan to advance culturally responsive care throughout the enterprise.	Strategic plan to advance culturally responsive care throughout the enterprise does not currently exist.	Culturally Responsive Care strategic plan complete by June 2016.
Complete enterprise-wide review of use and effectiveness of CultureVision.	CultureVision assessment plan proposed; awaiting approval by CultureVision Project Team.	Review and assessment of use and effectiveness of CultureVision complete by June 2016.
Complete and submit proposal to establish post- baccalaureate research education program in the biomedical sciences.	Post-baccalaureate research education does not currently exist.	Proposal submitted, accepted and approved by December 2015.

## Scorecard – Growth and Finance FY16 Targets



UI Health Care Strategic Plan Scorecard	FY15 Actual	FY16 Target
GROWTH & FINANCE		
Admissions (excl. Normal Newborn and OP Observation)	31,748	34,183
UIHC Operating Margin %	6.2%	3.5%
UIP Operating Margin %	4.9%	3.6%
Outpatient Clinic Visits (including ETC and Hosp Dentistry)	888,996	933,992
Surgical Cases (inpatient and outpatient)	29,958	30,750
Philanthropy	\$91.4M	\$95.0M

#### Faculty Presenters: Precision Cancer Medicine



#### George J. Weiner, MD

- Chair / Director, UI Holden Comprehensive Cancer Center
  - MD, Internal Medicine, The Ohio State University
  - o Residency, Internal Medicine, Medical College of Ohio
  - o Fellowship, Hematology and Oncology, U of Michigan

#### Nitin J. Karandikar, MD, PhD

- Chair / DEO, UI Dept of Pathology
  - o MD, Pathology, BJ Medical College, U of Poona, India
  - PhD, Immunology and Molecular Pathogenesis Graduate Program, Northwestern U Medical School
  - Residency, Anatomic and Clinical Pathology, BJ Medical College, U of Poona, India
  - Residency, Clinical Pathology; Fellowship, Hematopathology, UTSW Medical Center
  - o Post Doctorate, Research in Immunology, UTSW Medical Center

#### Aaron D. Bossler, MD, PhD

- Clinical Assoc Professor, UI Dept of Pathology
  - o MD, PhD, Molecular Biology, UI CCOM
  - o Residency, Clinical Pathology, UI CCOM
  - o Fellowship, Molecular Genetic Pathology, U of Pennsylvania











### Faculty Presentation: Precision Cancer Medicine

George Weiner, MD, Professor of Internal Medicine Director, Holden Comprehensive Cancer Center

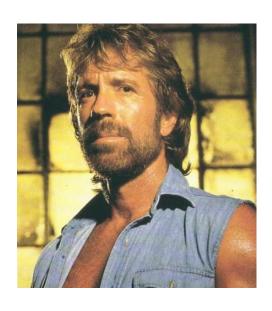
Nitin Karandikar, MD, PhD, Professor and Chair, Department of Pathology

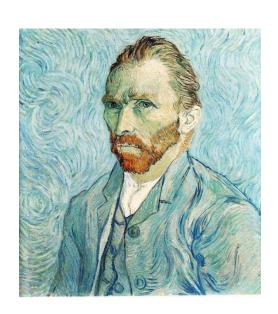
Aaron Bossler, MD, PhD, Associate Professor of Pathology Director, Molecular Pathology





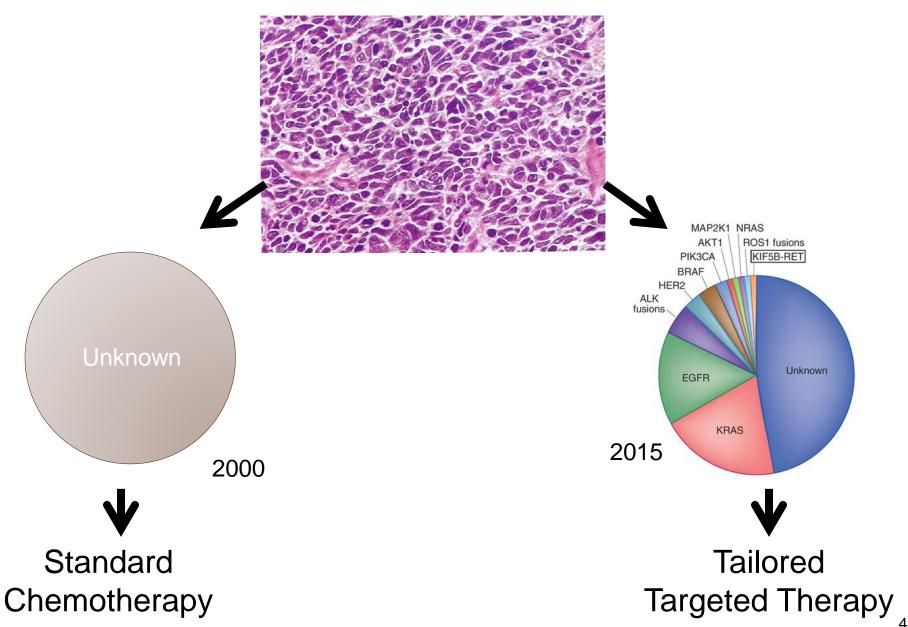
## What looks similar on the outside may actually be very different







### Molecular Causes of Non-Small Cell Lung Cancer HEALTH CARE





### What looks different on the outside can have similarities



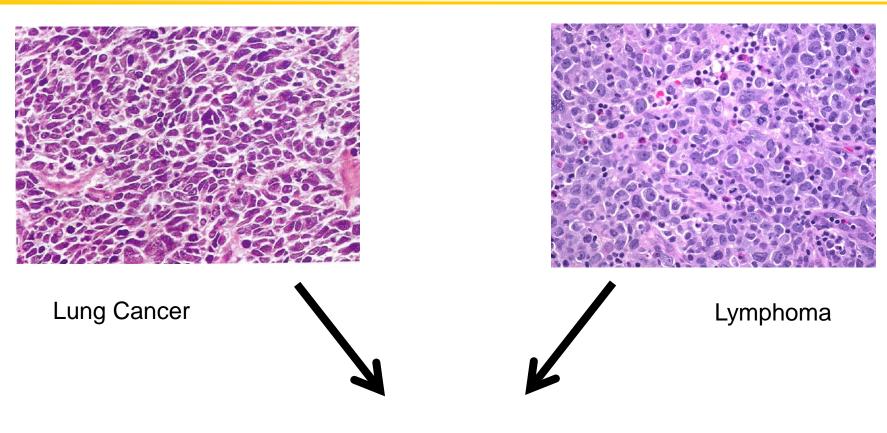




Apply advances in molecular pathology to improve care of cancer patients

#### **Different Cancers – Common Mutation**





Abnormality in ALK



Therapy Targeted at ALK

#### **Cancer Medicine is Changing**



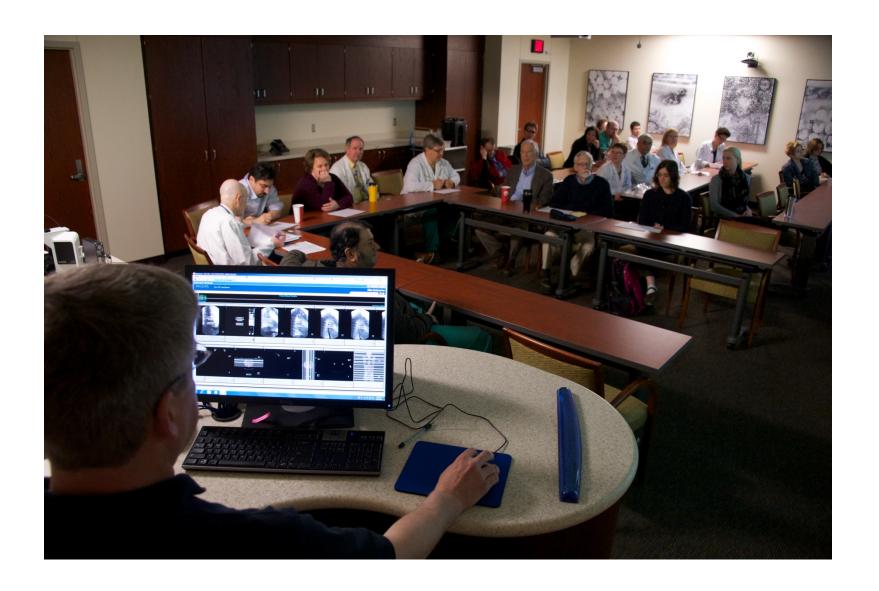
- Cancer research has taught us that cancer is incredibly complex
- We are developing targeted cancer treatments based on the individual make up of cancers
- We need to be able to assess that complexity in order to identify the right treatment for the right person
  - Personalized cancer therapy
  - Precision cancer therapy

#### Holden Comprehensive Cancer Center

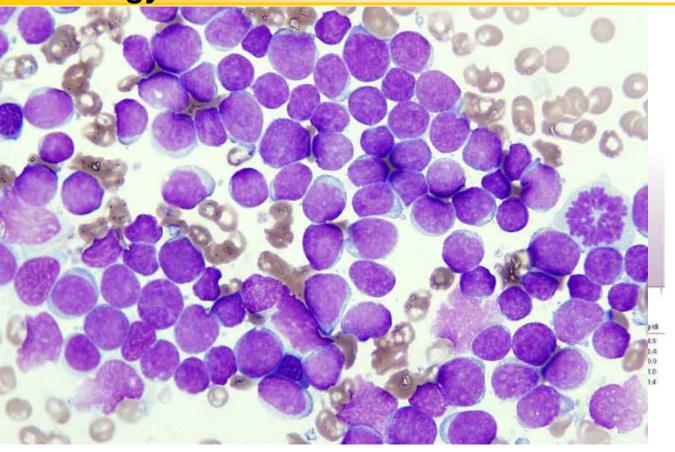


- One of 43 cancer centers nationally designated as a "Comprehensive Cancer Center" by the National Cancer Institute
- Multidisciplinary teams of physicians and scientists that specialize on a specific cancer type (Multidisciplinary Oncology Groups)
- Cutting-Edge Molecular Pathology Capabilities (unique in Iowa)
- Laboratory and clinical research to develop and test the newest approaches to cancer prevention, early detection and therapy
- Tumor board meetings, including Molecular Tumor Boards, to discuss implications of individual patients

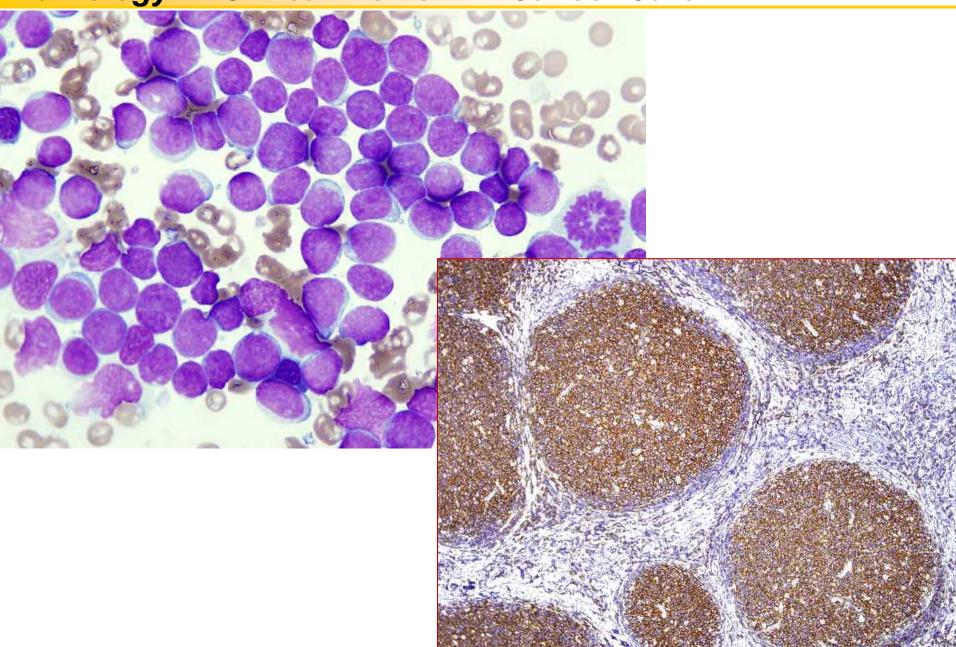




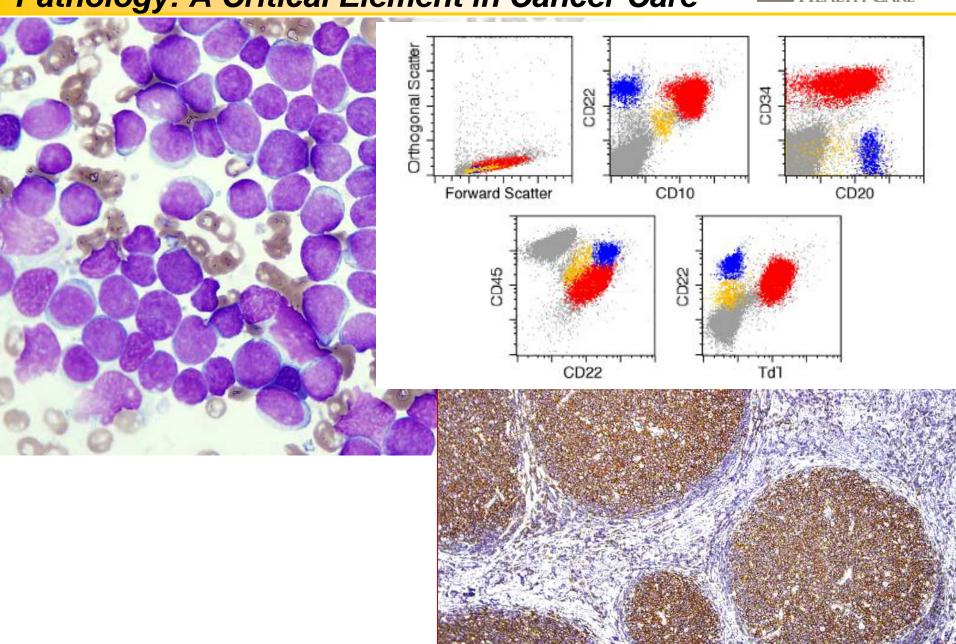




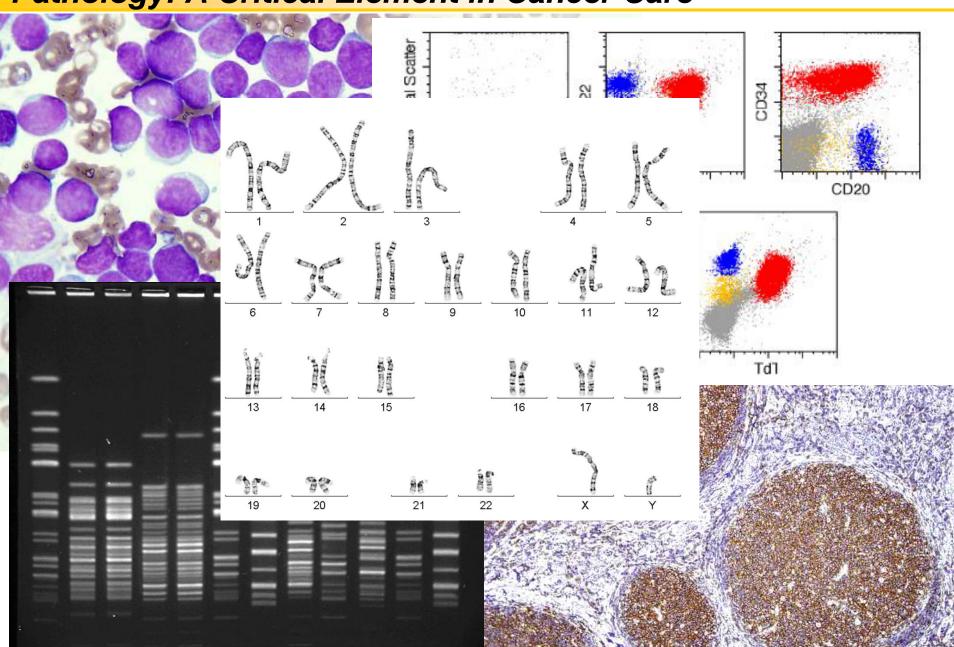




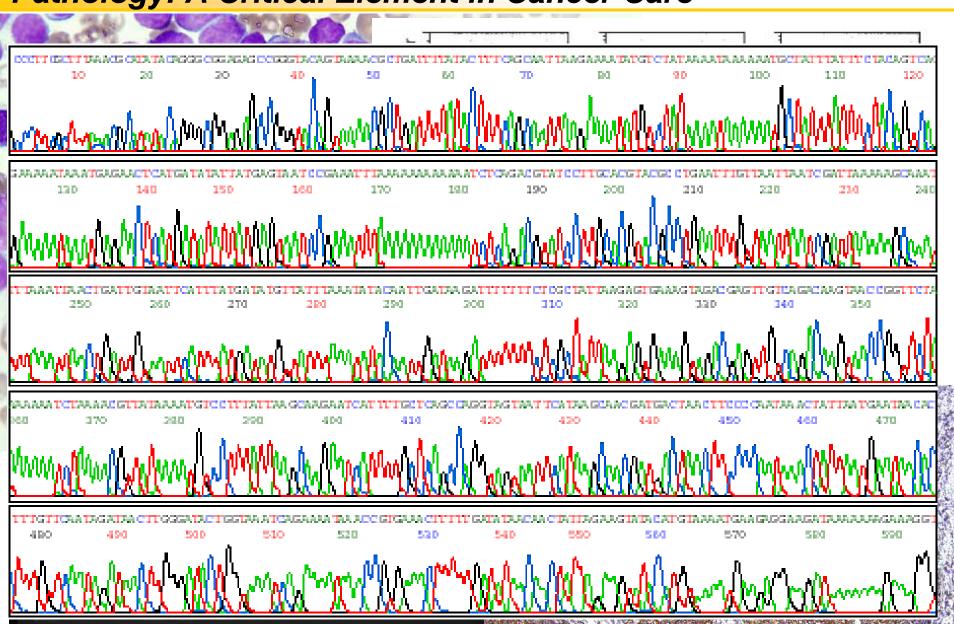












## Personalized Medicine in the Molecular Pathology Lab

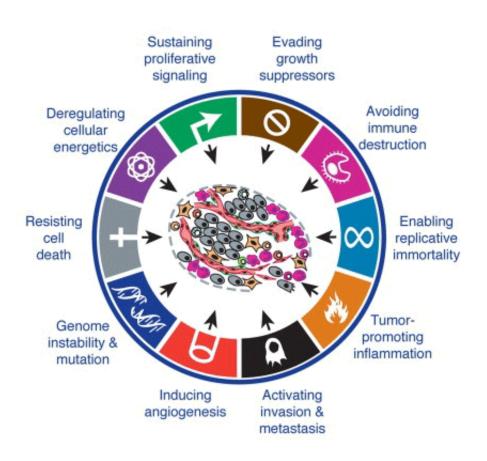


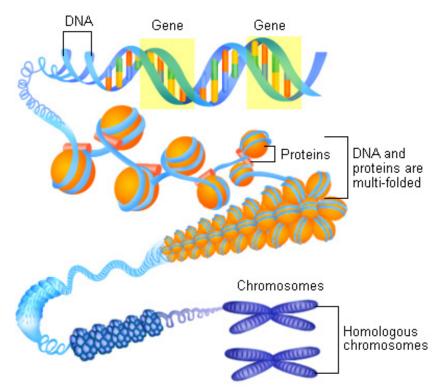
#### Mission:

 Help provide state of the art precision cancer care for the patients of lowa.

#### What is Cancer at the Molecular Level?







Genes are encoded by DNA which folds together to make chromosomes

### Example in Colon Cancer



Where a single change in the billions of DNA letters

Alters an oncogene that drives cancer

And helps direct specific drug selection

#### Molecular Oncology Test Menu



#### **Targeted mutation testing:**

- B cell, IGH gene, clonality by PCR (lymphoma)
- BCR-ABL, t(9;22), RNA Quantitation (CML, ALL)
- BRAF mutation analysis by sequencing (melanoma, thyroid, HCL)
- CALR (MPN)
- CEBPA Mutation Analysis (AML)
- EGFR sequencing (Lung)
- FLT3 Mutation Detection (AML)
- IDH1 and IDH2 (AML, GBM, sarcoma)
- JAK2 V617F Mutation Detection Assay (PCV)
- KIT Mutation Analysis by Sequencing (GIST, AML)
- KRAS Mutation Analysis (CRC, thyroid, lung)
- Microsatellite Instability testing (CRC)
- MPL W515/S505 (MPN)
- NPM1 Mutation Detection (AML)
- NRAS Mutation Analysis (CRC, melanoma)
- PDGFRA (GIST)
- TCRG (T cell clonality) by PCR (lymphoma)

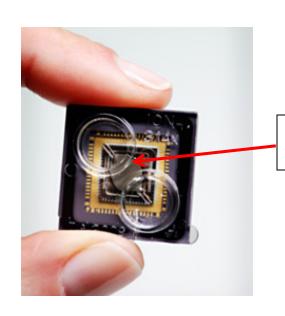
#### **Cancer mutation profiling:**

- 50 gene hotspot panel
- 30 gene leukemia specific panel

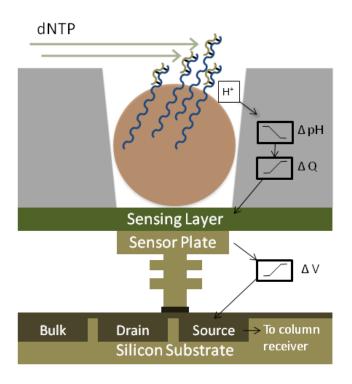
Thousands of patients have had some form of molecular tumor testing.

#### First NGS Based Clinical Oncology Testing in Iowa IIII 🚻





Chips are biosensors with millions of pH meters each



- Cancer Mutation Profiling 50 Gene hotspot panel
- Live since October 2013.
  - 243 cases to date have had mutation profiling
  - Multiple tumor types tested: colon and lung adenocarcinoma, thyroid tumors, melanoma, lipo-, chondro- and leiomyosarcomas, urothelial carcinoma, malignant peripheral nerve sheath tumor, neuroendocrine tumor, gastrointestinal stromal tumor, acute myeloid leukemia, myelodysplastic syndrome and chronic myelogenous leukemia in accelerated phase.

#### **Cancer Mutation Profiling**



- 54% of patients had one or more mutations
  - Patients benefit from prognostic information
  - Patients benefit from targeted therapy
  - PATIENTS IDENTIFIED AS CANDIDATES FOR CLINICAL
     TRIALS WITH NEW MOLECULAR TARGETED THERAPY

### **Summary**



- Goal: To provide comprehensive molecular profiling of patients' tumors to empower oncologists to provide the most specialized and tailored patient care
- Result: Our unique capabilities to define the molecular basis of cancer enhances our role as the leader in providing cutting-edge care for cancer patients in Iowa



### Thank you!