

# **Understanding AI in Healthcare: A Foundational Overview**

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### CONTENTS

- 1 What AI actually is (and isn't)
- **2** How AI is currently being used in healthcare
- **3** Implementation Considerations
- **4** Future Directions

# **Artificial Intelligence Defined**

- Artificial Intelligence: Computer systems that can perform tasks that typically require human intelligence
- Machine Learning: AI systems that improve through experience
- Key distinction: Traditional programming vs. learning from data

#### Administrative

- Routine Tasks
- Coding
- Documenting

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### Clinical

- Decision
   Support
- Image Analysis
- Predictive Analytics

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#### Analytical

- Population Health
- Cost Trend Analysis

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#### Interactive

- Patient Engagement
- Symptom Checking
- Care Navigation

### How Healthcare Organizations are Using AI Today

•Reducing administrative burden (20-30% potential savings)

Identifying high-risk patients before costly interventions needed

•Personalizing care pathways based on individual risk factors

•Optimizing resource allocation for better outcomes at lower costs

Improving care coordination across settings

# **Case Study- Predictive Analytics**

Challenges<br/>Identifying High Risk<br/>PopulationsAI Solution<br/>Risk Prediction ModelsImpact<br/>15-25% reduction in<br/>preventable<br/>readmissionsROI<br/>Improved Quality<br/>Scores and value based<br/>payment incentives

# **Case Study- Population Health**

#### Challenges

Closing The Care Gap/Chronic Disease Management

#### **AI Solution**

Smart Outreach Optimization/Predictive Engagement Models

#### Impact

30% increase in preventative care completion rates

#### ROI

Reduced Progression to Costly Complications

# **Case Study- Resource Optimization**



## **Implementation Considerations**

Data quality and integration requirements

Workflow integration challenges

Change management necessities

•Ethical considerations: bias, transparency, privacy

•Evaluation frameworks for ROI assessment

# **Future Directions**

•Ambient clinical intelligence reducing documentation burden

- •Multimodal AI combining different data types
- •Federated learning for privacy-preserving analytics
- •Generative AI applications in care planning and education

# **Key Takeaways**

•Al is a powerful tool, not a replacement for human judgment

Successful implementation requires clear use cases and ROI measurement

Start with high-impact, lower-complexity applications

•Build data infrastructure and governance alongside AI capabilities

Consider ethical implications from the beginning

### **CONTACT INFO**

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### Future Health: Al's Role in Population Health and Cost Management May 1, 2025

### finHealth



<u>Independently</u> support employers in safeguarding healthcare spending, by ensuring that all claims are paid accurately, only for eligible participants and <u>at reasonable and competitive prices.</u>

### **Guiding Legislation**

- ERISA
- Sarbanes-Oxley
- Hospital Price Transparency
- CAA of 2021 / No Gags Clause
- No Surprises Act





### **Employer Healthcare Ecosystem**



Carrier Reviews / Third-Party Audits / Administrative Fees

**Payer Processing Errors** 



Billing Errors / Poor Contracts / Weak Controls

### **Top 10 Healthcare Spending Areas Hemorrhaging Money**

- Inpatient Hospital Bills
  - Outpatient / Surgical Care
  - PBM Spend
  - Drugs Administered In A Medical Setting
  - Excessive Professional Fees
  - ER / Air Ambulance
  - Medical Imaging
  - Path & Lab
  - Vulnerable Members
  - Dialysis Patients
  - Payment Integrity / Shared Savings





### What *finHealth* Finds



#### **Summary of Errors**

Error Type	# of Claims	Exception Amount	Error Threshold
Simple	204	\$6,145,023	
Eligibility - No Coverage	4	\$100,734	\$1,000
Eligibility - Missing Coverage	15	\$244,114	\$1,000
Duplicate	45	\$657,821	\$1,000
NCCI / MUE	96	\$2,186,459	\$1,000
Age / Gender Conflict	10	\$29,185	\$1,000
Inpatient - No DRG	22	\$2,468,742	\$1,000
Missed Provider Discounts	12	\$457,968	\$1,000
Intermediate	280	\$5,606,857	
Drug ASP Pricing	90	\$3,253,342	\$5,000
Professional Outliers	25	\$464,539	\$5,000
Inconsistent Pricing	134	\$1,399,155	\$5,000
Excessive ER	28	\$446,337	\$5,000
Excessive Air Ambulance	2	\$28,459	\$5,000
Excessive Ground Ambulance	1	\$15,025	\$5,000
Complex	83	\$7,961,317	
Inpatient Outlier > 250%	52	\$5,216,004	\$25,000
Non-Covered Services	14	\$1,330,524	\$25,000
Subrogation	14	\$1,370,524	\$25,000
Possible COB	3	\$44,265	\$25,000
Grand Total	567	\$19,713,197	

#### **Post-Payment Findings**

#### Key Takeaways

 In less than an hour for a 10,000 member group, 12 months of data can be loaded, validated, cleansed, enriched, error algorithms run, risk scores computed, and error opportunities identified.





### **AI / Prepayment Example**



Claim#	D ELECTRONICALLY MERITAIN HEALTH	H la PAT	4 TYPE	Prep	ayment Ex
NORTHBAY MEDICAL CENTER 1200 B GALE WILSON BLVD FAIRFIELD, CA 945333552 7076463400, 7076463442, ADOSANU SNOR 8 PATIENT NAME 10 BRTHDATE 11 SEX 12 DATE 13 OCCURRENCE 00 DATE 00 DATE 13 OCCURRENCE 00 DATE 00	X 25376 ENA, CA 911859998 THBAY.ORG PATIENT ADDRESS a PATIENT ADDRESS a 17 STAT 18 19 20 21 CONDITION CO 22 23 63 C5 34 OCCURRENCE 35 CODE COLURENCE SPAN CODE DATE CODE COLURENCE SPAN CODE AMOU	NTL#         782056           #EC#         782056           #FE TAX NO         6           941458282         FROM           24         25         26         27         28         51           THROUGH         36         OCCUF         Date         Date           THROUGH         36         OCCUF         Date         Date           ES         40         VALUE CODES         AMOUNT	of Bill 111 COVERS PERIOD THROUGH 7 P 2007 B0 ATE CODE 41 VALUE CODES AMOUNT	<ul> <li>Key Takeaway</li> <li>UB-04 Form</li> <li>The form is valuation of</li> <li>The form g diagnosis, service and</li> </ul>	<b>rs</b> n is forwarded s used by finH of the claim. give us importa and procedure d a high-level s
42 REV CD 43 DESCRIPTION 44	d HCPCS / RATE / HIPPS CODE 45 SERV. DATE	46 SERV. UNITS 47 TOTAL CHARGES	48 NONCOVERED CHARGES 49		0
1 0121 MED-SUR-GY/2BED		7 57519.0	1		
a 0214 CCU/INTERMEDIATE		9 129555.0	42 REV CD 43 DES	CRIPTION	44 HCPCS / RATE / HIPPS CODE
4 0250 PHARMACY		2153 421421.6	1 0410 RES	PIRATORY SVC	
5 0258 IV SOLUTIONS		2 2085.1	0 2 0420 PHY	SICAL THERAP	
6 0260 IV THERAPY		1 1331.0	0 4 0430 OCC	UPATION THER	
7 0271 NON-STER SUPPLY		82 17108.6	5 5 0434 OCC	UP THERP/EVAL	
8 0272 STERILE SUPPLY		2 202.5	6 0440 SPE	ECH PATHOL	
10 0300 LABORATORY or (LAB)		50 23003.0	0 7 0444 SPE	ECH PATH/EVAL	
11 0301 LAB/CHEMISTRY	No CPT, HCPCS	267 49601.0	0 8 0450 EME	RG ROOM	
12 0302 LAB/IMMUNOLOGY	or Drug codes	14 2690.0	0 9 0460 PUL	MONARY FUNC	
13 0305 LAB/HEMATOLOGY	provided	38 9039.0	0 10 0480 CAR	DIOLOGY	
14 0306 LAB/BACT-MICRO		16 6153.2	1 11 0611 MRI	-BRAIN	
15 0320 DX X-RAY		1 3902.8	8 12 0635 DRU	IGS/DETAIL CODE	
17 0351 CT SCAN/HEAD		6 23229.0	0 14 0730 EKG	J/ECG	
18 0352 CT SCAN/BODY		2 23459.1	4 15 0740 EEG	;	
19 0370 ANESTHESIA		1 392.0	0 16 0801 DIA	LY/INPT	
20 0390 BLOOD/STOR-PROC		1 686.0	0 17 0921 PER	I VASCUL LAB	
21 0391 BLOOD/ADMIN		1 5716.0	0 18 0000		
22 0402 ULTRASOUND	CREATION DATE	1 1/40.9	4 19 REP	RICED BY: AETNA CHOICE	PDS II TO:
50 PAYER NAME 51 HEALTH PLAN ID	52 REL 53 ASG BBN 54 PRIOR PAYMENTS	55 EST. AMOUNT DUE 56 NPI 1	821147786		
Aetna Carrier 60054 MEDICARE 12M64	Y Y	1696794.42	Billed Charges		
	55 246179 V .T9401	V 1.09211 V N170	V D6/09 V .T6	90 N B372 N C984	1 N F1121 V68
	0 T5033 V 7794	1 102211 1 N100	1 D0409 1 00	N813 V 76843 F680	1 V 180621
	69 ADMIT 2 4 1 9 70 PATIENT	a h	71 PPS 970	72 V95 V	1 102021
	74 PRINCIPAL PROCEDURE a.	OTHER PROCEDURE	D. OTHER PROCEDURE	75	15 2 9 5 4 2 JOUNI
	5319557 DATE	CODE DATE	581D707 05-24-2	DRG Code	TH60X7 0000
	c. OTHER PROCEDU d.	OTHER PROCEDURE	OTHER PROCEDURE		E 0 2 7 1 0 000 TUPENTER
	CODE DATE	CODE DATE	CODE DATE	TOPERATING NPT /60	1302/10 4044
	80 REMARKS	ICD-10	Procedure Codes	78 OTHER NPI	QUAL

### ment Example: UB-04

- s forwarded by the carrier.
- sed by finHealth to perform an initial the claim.
- e us important fields such as the DRG, d procedure codes; as well as dates of high-level summary of the charges.

ICD-10

Diagnosis

Codes

ARDE OF LOOP	* 1			10			1					al.	<b>1</b> 1
CARE OR (CCU	J)			19	505742.00		42 REV CD	43 DESCRIPTION	44 HCPCS / RATE / HIPPS CODE	45 SERV. DATE	46 SERV. UNITS	47 TOTAL CHARGES	48 NONCOVERED CHARGES 49
MEDIATE				9	129555.00		0410	RESPIRATORY SVC			42	196695.00	1
				2153	421421.65		0420	PHYSICAL THERAP			7	1099.00	2
ONS				2	2085.10		0424	PHYS THERP/EVAL			1	206.00	3
PΥ				1	1331.00		0430	OCCUPATION THER			1	157.00	4
SUPPLY				82	17108.65		0434	OCCUP THERP/EVAL			1	68 00	
UPPLY				2	202.50		0434	OCCOP THEREYEVAL				2125.00	
PLANTS				1	1883.70		0440	SPEECH PATHOL		1.00	5	2125.00	P P
Y or (LAB)				50	23003.00		0444	SPEECH PATH/EVAL			1	4/1.00	7
STRY	No CPT, I	ICPCS		267	49601.00		0450	EMERG ROOM			3	25604.00	8
IOLOGY	or Drug o	odes		14	2690.00		0460	PULMONARY FUNC			137	25545.00	9
OLOGY	provid	ed		38	9039.00	1	0480	CARDIOLOGY			1	20652.00	10
MICRO				16	6153.21	1	0611	MRI-BRAIN			2	12400.00	11
				1	3902.88	1	2 0635	DRUG/EPO>10,000 UNITS			500	25809.50	12
CHEST				15	8625.00	1	0636	DRUGS/DETAIL CODE			440	29455.15	Allowed 3
IEAD				-0	23229.00	1	4 0730	EKG/ECG			1	658.00	Amount (33%
ODY				2	23459.14	1	5 0740	EEG			6	31161.00	discount off of
Ъ.				1	392 00	1	0801	DIALY/INPT			10	26130.00	hilled charges
P-PPOC				1	696.00		0001	DERT VASCUL LAB			2	3473 00	billed charges.
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Carrier 6	50054	Y Y		1696794	.42	I a di chana		Α					

Run date: 15	-JUL-24	North Ba	ay Healt	h Syst	tem		
Pt#: Patient N Fin Clas Insurance	MRN: Jame: ss: AETNA e Name: AE1- AETNA PPO/EC/MS/PC	DS			Adm To Tot Tot	nit Date: tal Charges: al Pymts: tal Adj:	Disch D 1,696,794.42 0.00 0.00
					Bal	ance Due:	1,696,794.42
Post DT F	Pay/Adj Description	Trans	Pmt D	ate		Pmt Amt	
Chrg Date	Chrg Description	Qty	Rev	CPT		Charge Amt	t
F	ROOM CHARGE MS TELE	1.0	0000			14,395.0	0
	JRINALYSIS RT, AUTO	1.0	0000	301	81001	352.0	0
	ROPONIN	1.0	0000	301	84484	1,366.0	0
	Procalcitonin Level	1.0	0000	301	84145	104.0	0
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	CHEST 1 VIEW	1.0	1000	324	71045	575.0	0
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Ē	BLOOD GAS ANALYS	1.0	0000	300	82803	1,192,0	0
4	ARTERIAL PUNCTURE	1.0	0000	410	36600	247.0	0
F	RT LACTIC ACID	1 (	0000	301	83605	333.0	0
E	BLOOD GAS ANALYS	1.0	0000	300	82803	1,192.0	00
E	EKG TRACING ONLY	1.0	0000	730	93005	658.0	00
F	ROOM CHARGE MS TELE	1.0	0000			14,395.0	0
F	PARTIAL THROMBOPLAST	1.0	0000	305	85730	297.0	0
F	PROTHROMBIN TIME	1.0	0000	305	85610	190.0	00
0	CULTURE BLOOD	1.0	0000	306	87040	675.0	0
0	CULTURE BLOOD	1.0	0000	306	87040	675.0	0
0	CBC WITH AUTO DIFF	1.0	0000	305	85025	259.0	0
\ \	/ENIPUNCTURE	1.0	0000	300	36415	83.0	00
E	BASIC METABOLIC PANE	1.0	0000	301	80048	480.0	0
N	MAGNESIUM	1.0	0000	301	83735	295.0	00
~	ANCOMYCIN	1.0	0000	301	80202	579.0	0
E	BASIC METABOLIC PANE	1.0	0000	301		0.0	00
E	BASIC METABOLIC PANE	1.0	0000	301	80048	480.0	00
N	MAGNESIUM	1.0	0000	301	83735	295.0	0
<u> </u>	CBC WITH AUTO DIFF	1.0	0000	305	85025	259.0	00
V	/ENIPUNCTURE	1.0	0000	300	36415	83.0	0
	NSULIN GLARGINE 100	1.0	0000	036	J1815	2,535.2	5
	ANCOMYCIN 1.25GM/NS	1.0	000	250	14045	1,283.1	0
	NSULIN LISPRO 100 U	1.0	0000	03/	J1815	1,136.7	0
A 1	ATORVASTATIN CALCIUM	1.(	1000	250		96.3	0
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		1.(	1000	250	J1644	381.5	5
	JABAPENTIN TUUNG CAP	1.0	1000	200		35.2	.5

#### **Prepayment Example: Itemized Bill**

#### Key Takeaways

Page: 1

- Based on an unfavorable initial valuation, finHealth asks the carrier to send an itemized bill (IB).
- The IB details by day all the charges for services.
- It includes a description, revenue code, HCPCS / CPT / Drug code and the billed charges from the hospital.
- The IB is uploaded into finHealth's application and reprices the bill compared to what is paid to peer hospitals for the same services.
- The example provided is 1 of 39 pages.



Billed Charges: \$1,696,794.00 | Allowed Amount: \$1,136,852.00 | Medicare: \$85,130.32 | %age of Medicare: 1,335%

	Top Medical Codes										
	Medical Code	Billed	Medical	Benchmark	Units	Benchmark	Market	Cost			
Code	Description	Charges	Spend	Туре	Billed (Adjusted)	Value	Value	Variance			
R210	Coronary care-g	\$505,742	\$338,847	Median (12 Data Points)	19.00 (19.00)	\$2,965.00	\$56,335	(\$282,512)			
R250	Pharmacy-genera	\$170,518	\$114,247	Median (2,626 Data Points)	364.00 (364.00)	\$22.68	\$8,256	(\$105,991)			
R214	Coronary care-p	\$129,555	\$86,802	Median (27 Data Points)	9.00 (9.00)	\$2,160.44	\$19,444	(\$67,358)			
94003	Ventilation ass	\$119,568	\$80,111	94003 Ventilation Asst and Mgmt Ea Subsequent Day (FHCB)	12.00 (12.00)	\$167.00	\$2,004	(\$78,107)			
R121	Room & Board; S	\$57,519	\$38,538	Median (129 Data Points)	7.00 (7.00)	\$2,802.84	\$19,620	(\$18,918)			
J2543	Piperacillin/ta	\$54,413	\$36,456	Drug ASP (11 Drug Prices)	31.00 (31.00)	\$1.52	\$47	(\$36,409)			
P9047	Albumin (human)	\$51,616	\$34,583	Drug ASP (11 Drug Prices)	9.00 (9.00)	\$53.08	\$478	(\$34,105)			
J2020	Linezolid injec	\$42,595	\$28,539	Drug ASP (11 Drug Prices)	10.00 (10.00)	\$4.86	\$49	(\$28,490)			
J3490	Drugs unclassif	\$31,719	\$21,252	Accepted Provider Rate(s)	35.00 (35.00)		\$21,252	\$0			
R801	Inpatient renal	\$26,130	\$17,507	Median (3 Data Points)	10.00 (10.00)	\$203.38	\$2,034	(\$15,473)			
Q5105	Inj retacrit es	\$25,810	\$17,292	Drug ASP (11 Drug Prices)	5.00 (5.00)	\$0.84	\$4	(\$17,288)			
95716	Measurement of	\$23,358	\$15,650	Median (2 Data Points)	3.00 (3.00)	\$4,971.03	\$14,913	(\$737)			
70450	CT scan head or	\$23,229	\$15,563	Median (246 Data Points)	6.00 (6.00)	\$972.40	\$5,834	(\$9,729)			
94660	Initiation and	\$21,363	\$14,313	Median (19 Data Points)	7.00 (7.00)	\$323.40	\$2,264	(\$12,049)			
36558	Insertion of ce	\$20,652	\$13,837	Average Market Price (ZIP 94533)	1.00 (1.00)	\$7,013.00	\$7,013	(\$6,824)			
Subtota	I	\$1,303,786	\$873,537				\$159,546	(\$713,991)			
All Other Medical Codes \$293,049 \$196,343							\$56,351	(\$139,992)			
All Deni	ed Codes	\$99,960	\$66,973				\$0	(\$66,973)			
Totals		\$1,696,794	\$1,136,852				\$215,897	(\$920,956)			

Northbay Medical Center charged excessively for R210 – Coronary care-general, R250 – Pharmacy – general, R214 – Coronary Care-post CCU, and R121 – Room & Board; semi-private.

#### Prepayment Example: Repricing

#### Key Takeaways

- NorthBay excessively charged for a majority of services.
- There were \$67K of charges in error.
- NorthBay was overpaid \$921K compared to what is paid to peer hospitals.

#### Claim #:

#### Billed Charges: \$1,696,794.00 | Allowed Amount: \$1,136,852.00 | Medicare: \$85,130.32 | %age of Medicare: 1,335%



This is a 68-year-old female with Septicemia or Severe Sepsis with MV > 96 Hours (DRG Code 870). The AMLOS for DRG 870 is 16.1; this was a 35-day stay. Northbay Medical Center does not publish DRG chargemaster rates. Adventist Health Vallejo's, a nearby hospital, published Aetna rate is \$123,786. Adventist Health Vallejo's maximum published charge for DRG 870 is \$144,584, while their Cash Price is \$75,392. The Average Market Price in Fairfield, CA (ZIP 94533) is \$80,925. We recommend a single case rate "Fair Price" of \$212,826, not to exceed \$269,100 (Adventist Aetna rate \* 35 days).

### Prepayment Example: Fair Payment

#### Key Takeaways

- This graph compares the price being requested to industry benchmarks including:
  - Medicare
  - Provider's chargemaster
  - Average market price in Fairfield, CA, ZIP 94533
  - Peer hospitals (finHealth repriced amount)
- NorthBay excessively charged for a majority of services.
- Even if we extrapolate the Aetna (Meritain) chargemaster rate to 35 days, this claim was overpaid by \$868K.
- finHealth would have recommended a "Fair Pay" of \$213K not to exceed \$269K.



### **AI / Post-Payment Examples**



### **Duplicate Payment \$55,051**

Same Provider / Member / Date of Service – Different Claim Numbers & Payment Dates

		CI	aim #	#:	8004202	28500	_									C	laim #	• • •r #: M646594	18004202	<b>94800</b>	Г			
Billed Ch	arges: \$142,906.41   HV	VI: 0.3%   Medicare Rate: \$	0   %age	e of Medicare: (	).0%	40703	A	llowed	Amount: \$	55,419.11	Bille	ed Charges: \$	142,906.41	HWI:	100.0%   N	Aedicare Rate	e: \$0   %ag	ge of Medicar	e: 0.0%			Allowed	Amount: S	55,051.12
Member Bill Type Source: Group:	#: M64659480-04 Dependent / N/A Dollar Bay, MI :: F-131 - F-131 (Facilit	2	CD Codes	251.12 - Encou C81.90 - Hodg F41.9 - Anxiety Z79.899 - Othe DRG: N/A - No DRG Weight:	inter for a kin lympl disorder er long te ot Availab	antineoplastic homa, unspec r, unspecified erm (current) d ble Length Of S	immunotherapy ified, unspecified lrug therapy <b>tay:</b> AMLOS -   C	s GMLOS -	Admission Type	Age 19 e: 3 - Elec	Men Bill Sour Grou	mber #: M64 Dep Dolla Type: F-13 Irce: Dup:	4659480-04 Jendent / N/ Jar Bay, MI 31 - F-131 (F	/A Facility)		2	CD Codes:	Z51.12 - Enco C81.90 - Hodg F41.9 - Anxiet Z79.899 - Oth DRG: N/A - N DRG Weight:	unter for gkin lymp y disorde er long te lot Availal	antineoplastic homa, unspec r, unspecified erm (current) c ble <b>Length Of S</b>	immunotherap ified, unspecifie Irug therapy <b>tay:</b> AMLOS - <b> </b>	y d s GMLOS -	dmission Typ	Age 19 ne: 3 - Elec
+	Place of Service 22 - Outpatient Hospi	Service           Begin Date         End Date           tal         07/03/24         07/03/24	Length Stay 0	of Hosp Admission	ital Discharg	e 01 - Dis	Discharge Status scharged to home o	Sub	Latest Dates mitted Payme /15/24 07/19/	<b>Days To</b> <b>Pay</b> 24 16		22	Place of Se - Outpatient	<b>rvice</b> Hospital	S Begin Dat 07/03/24	ervice te End Date 07/03/24	Length of Stay 0	f Hos Admission	pital Discharg	<b>je</b> 01 - Di:	Discharge Status scharged to home	Subr	Latest Dates hitted Paym 8/24 08/16	Days To ent Pay /24 44
Provider NPI#: CMS ID( Pricing N	<ul> <li>**: N1245667229 1245667229</li> <li>CCN#): 230108</li> <li>Method: N/A</li> </ul>	Portage Hospital 500 Campus Dr Hancock, MI 49930 <b>Pay Type:</b> P - Payment I	Made to .	Median Tr	Encour Medic Taxon	t \$/Day for O nter Treatme are Rating: omy:	utpatient Hospin nt \$/Day: \$55,41	<b>tal: \$</b> 147 19 ★ are Hospita	<b>2023 I</b> 317.0% 277	Rand Study of Medicare Services	Prov NPI CMS Prici	vider #: I#: S ID(CCN#): cing Method:	N1245667 124566722 230108 N/A	7229 29	Portage H 500 Camp Hancock, <b>Pay Type</b>	lospital ous Dr Ml 49930 : P - Payment	Made to	Median T	reatmen Encou Medic Taxor	t \$/Day for O inter Treatme care Rating: nomy:	utpatient Hosp nt \$/Day: \$55,0	<b>ital:</b> \$147 051 <del>\/</del> Care Hospita.	<b>2023</b> 317.09 27	Rand Study 6 of Medicare 7 Services
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202419 202419	70828500 (10) 07/03/24	07/03/24 R250 - Pharmacy-ger	neral classi	fication	2 2	\$0.55 \$25.21	\$1.42 \$65.00	\$0.00 \$0.00	\$0.00 \$0.00	\$0.55 \$25.21	20	0242210594800	) (10) 07/0 ) (20) 07/0	03/24 07, 03/24 07,	//03/24 R250	- Pharmacy-ge	eneral classifio eneral classifio	cation cation	2 2	\$25.21 \$0.55	\$65.00 \$1.42	\$0.00 \$0.00	\$0.00 \$0.00	\$25.21 \$0.55
202419	Duplicate #	Amount	ferent dr	ig or substance	2	\$310.49	\$800.64	\$0.00	\$0.00	\$310.49	20	0242210594800	) (30) 07/0	03/24 07,	/03/24 9637	5 - Injection of	different dru	g or substance	2	\$310.49	\$800.64	\$0.00	\$0.00	\$310.49
202419	1	\$55,051.12	uximab v	edotin, 1 mg	1	\$367.99 \$54,698.79	\$948.91 \$141,048.96	\$0.00 \$0.00	\$0.00	\$367.99 \$54,698.79	20	0242210594800	0 (40) 07/0 0 (50) 07/0	03/24 07,	/03/24 9641	3 - Infusion of a	chemotherap	y into a vein up	1	\$0.00	\$948.91	\$0.00	\$0.00	\$0.00
202419	2	\$22,948.04	ine Hydr	ochloride	1	\$8.04	\$20.74	\$0.00	\$0.00	\$8.04	20	0242210594800	) (60) 07/0	03/24 07/	/03/24 J304	0 - Diphenhydra	amine Hydrod	chloride	1	\$8.04	\$20.74	\$0.00	\$0.00	\$8.04
202419	3	\$17,223.51	lydrochlo	ride (Injection,	8	\$8.04	\$20.74	\$0.00	\$0.00	\$8.04	20	0242210594800	0 (70) 07/0	03/24 07,	/03/24 J240	5 - Ondansetro	n Hydrochlor	ide (Injection,	8	\$8.04	\$20.74	\$0.00	\$0.00	\$8.04
	4	\$17,172.40																						
	5	\$15,701.50																						
	6	\$15,304.06				W/bo	n tho	h or	unlica	tocy	oro	anoc	tion	bo	tho	carri	ior w		กวน	uaro (	duplic	ato		
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	10	\$7,780.03				gli	tcn wi	nere	eby cla	aims	airea	ady pa	aid	wer	re ov	erwr	Ittel	n and	ı re	paid	using	a		
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	12	\$6,445.40			u	mere			unib		113 16	esuite	eu II	1 13	uu	Jiical	e ho	yme	1113	ioial	רל אווו			
	13	\$5,087.47																						
	Total:	\$149,805.58	1																					

### **Carrier Processing Error - \$500,000 Savings**



### 74177 - CT scan of abdomen and pelvis with contrast

\$28,000 \$26,000 \$24,000 \$22,000 \$18,000 \$14,000 \$14,000 \$10,000 \$10,000 \$4,000 \$2,000 \$0 \$0			Baseline Cost 🔒 Geo Adjustment 🍁 Tolerance 🔒 Ex	cessive (INN)	cessive (OON)		New Jerse	y Provider	
Place of S	Service	Payment Date	Medical Code	Allowed Amount	Member Paid	Median Cost	Variance vs. Median	Provider Chargemaster Rate	Cost Variance vs. Chargemaster
ER Hos	spital	4/12/23	74177 - CT scan of abdomen and pelvis with contrast - Facility	\$25,276	\$153	\$810	\$24,466	\$899	\$24,377
ER Hos	spital	8/30/23	74177 - CT scan of abdomen and pelvis with contrast - Facility	\$25,276	\$0	\$810	\$24,466	\$899	\$24,377
Outpa	tient	8/18/23	74177 - CT scan of abdomen and pelvis with contrast - Facility	\$25,276	\$0	\$810	\$24,466	\$899	\$24,377
Outpa	tient	11/8/23	/41// - CT scan of abdomen and pelvis with contrast - Facility	\$25,276	\$0	\$810	\$24,466	\$899	\$24,377

#### 93306 - Ultrasound examination of heart



### **Pregnancy Price Variation vs. Hospital's Chargemaster**

### DRG Code 807 – Vaginal Delivery without Sterilization



Each bar represents an inconsistent facility charge at the same hospital for childbirth (DRG Code 807). Carrier could not adequately explain the difference in pricing and would not let us see the contract with the hospital.



# mode: Precision Insights. Personalized Well-Being

### **Presentation Use Notice**



This presentation includes excerpts from the Framework Accelerating Care Transformation (FACT), highlighting key insights and strategies for healthcare transformation. The complete methodology is available upon request.

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We welcome opportunities to support follow-up, collaboration, or expanded application of this content—united in a shared commitment to the evolution of healthcare, measured by each individual's well-being.

### "When we try to pick out anything by itself, we find it hitched to everything else in the Universe." John Muir

### Within every moment each of us are participants in the Health Ecosystem, there are no observers.

## **Opportunity is Here** Transforming HealthSpan Through Innovation



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#### **Precision Medicine\* is:**

Precision Medicine is <u>Personalized Medicine</u> in Action

Precision Medicine is a function of the Clinical and the Operational:  $P_M = fCfO$ 

Precision Medicine's value is assessed in terms of Effectiveness, Accessibility and Affordability, impacting well-being in that order.

Precision Medicine is the Right Medicine at the Right Time for the Right Individual

Precision Medicine encompasses all aspects of the care cycle, including Prevention, Screening, Detection, Diagnosis, and Therapies.

\*(Medicine encompasses anything that positively impacts well-being, regardless of the point of care or type of care, and whether administered by oneself or others. It extends beyond healthcare providers to include Determinants of HealthSpan (DoHS), such as lifestyle choices, preventive care, and holistic interventions.)

### **Determinates of HealthSpan (DoHS)**



#### Solving for Value - Value Insights Matrix WHAT ARE THE FUNCTIONS AND RELATED DATA THAT MATTER?



#### Solving for Value - Value Insights Matrix WHAT ARE THE FUNCTIONS AND RELATED DATA THAT MATTER?



Value Based Experience (VBX) VBX is the Future of Healthcare

#### It's Time to Embrace a New Model for Healthcare

•VBX represents a transformative shift from the traditional VBC framework, which focuses on episodic processes and revenue, to a VBX model that prioritizes longitudinal outcomes and the true cost of care.

•By embracing VBX, we move beyond fragmented healthcare to a comprehensive, Individual-centered approach that optimizes HealthSpan, lowers costs, and enhances economic sustainability.

•A healthier, more productive population strengthens our economic future, ensuring long-term well-being and financial resilience for individuals, communities, and organizations.

•VBX is powered by Precision Medicine

**Prioritizing Precision Medicine at every Touchpoint and across all Care Types** Medical Home prevention The future is **Digital health** driven by creening innovations will **Precision Digital** Theraph Health for all, revolutionize powered by Edge healthcare once Subconscious **Technologies that** the right data Conscious Clinical Care Gap Psychologica Behavior bridge the and access are µ Engagement Engagement **Clinical Condition** in place. Digital Divide, Physiological Phenotype Democratize Genomics **MultiOmics** Precision data Care, and extend Financial DoHS \_\_\_\_\_ HealthSpan for are essential! 3 Potential Diagnos erect Everyone

#### From Space to Home to Workplace:

Whole Person Digital Twin: Physiological / Psychological

Dynamic Engagement: Individual to Digital Machine interface

Data and Sensors: Real-time well-being tracking in all environments

Al-driven predictive medical insights: Advanced Primary Care and Functional Medicine in your hands





# Wait for It !

### Human Connection More powerful than any AI











# mode: Precision Insights. Personalized Well-Being



# Appendix



#### Business / Policy (Revenue and Financial Management Focused)

VBP	Value-Based Purchasing
VBC	Value-Based Care (as in current use, not as envisioned)
СРТ	Current Procedural Terminology
DRG	Diagnosis Related Group
НСС	Hierarchical Condition Category
RAF	Risk Adjustment Factor
RVU	Relative Value Unit (Physician Reimbursement)
RCM	Revenue Cycle Management
Price Transparency	Visibility of healthcare price for consumers and providers
Payment Integrity	Processes ensuring accuracy of health plan payments
Prior Authorization	Pre-approval requirement for certain healthcare services
Activity Based Cost Accountin	ng Methodology for calculating actual cost of activities



Operations / Logistics (Care Workflow and Service Delivery Focused)

Activity Based Cost Accounting Clinical Decision Support Clinical Operations Supply Chain (Clinical) Methodology for calculating actual cost of activities Tools to enhance clinical decision-making Management of healthcare service delivery Management of healthcare supplies and procurement

#### Scientific / Medical (Clinical Practice, Research,)

