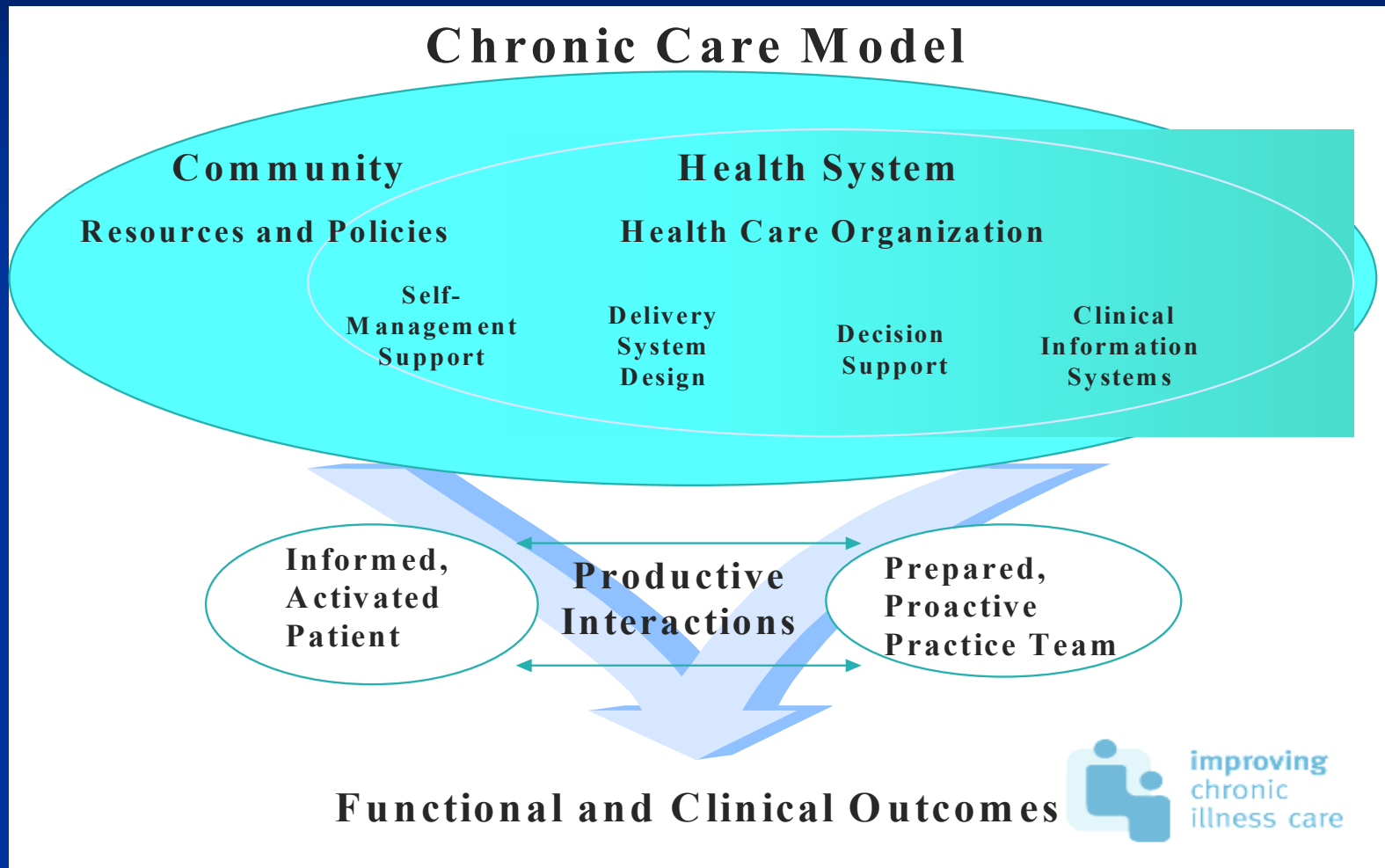


Chronic Care and I.T.

Alan Glaseroff MD
Chief Medical Officer
Humboldt Del Norte IPA

Chronic Care Model



IT and Chronic Disease

“You can’t manage what you don’t measure.”

Role of IT in Chronic Disease Care

- Identify disease populations
- Track outcome measures
- Track process measures
- Report on performance at various levels
 - Physician, Facility, and Organization
- Prompt providers for needed interventions
 - Screening and monitoring tests
 - Vaccinations
 - Medications
 - Patient outreach
 - “Planned Care” at the point-of-care: best practice actualized

It's All About Data

- Diagnoses
 - ICD-9 billing codes
 - Clinical diagnoses
- Medications
 - Med prescriptions
 - Med claims
 - Meds dispensed
- Lab tests
 - Test orders
 - Test claims
 - Test results

It's All About Data (2)

- Diagnostic/therapeutic/screening procedures
 - Orders
 - CPT-4 billing codes
 - Test results
 - Physical exam documentation

EMR vs. Registry

- EMR evolved from *acute care model*: templates for visits (URI, abdominal pain, sore throat) at the point of care
- Registries evolved from *planned care model*, including a population perspective at a distance
- Benefits to each: EMR for coding compliance, documentation, practice management; registry for population management
- Eventually, functions will merge into single system (single data entry crucial) *and why is it taking so long?*

Electronic Medical Record Systems

- General, multi-purpose
- Document all aspects of clinical care
 - Replace paper chart (ostensibly)
- Data entered by provider in the clinical setting

Electronic Medical Record Systems

- Great variation in:
 - Structure and coding of data
 - Free text vs. standard coding
 - Availability of data interfaces
 - Billing, lab, and pharmacy systems
 - Support for chronic disease care
 - Quality-tracking reports
 - Care-reminder features

EMRs for Chronic Disease Care

■ Pros

- No redundant data entry
- Rich data across many sources

■ Cons

- High barriers to physician adoption (cost, complexity)
- Data may not be sufficiently coded/structured
- Systems may lack disease-management features

Disease Registry Systems

- Specific, single purpose
 - Focus on specific disease states
 - Focus on data and features needed for care improvement
- Consistent structure and coding of data

Disease Registry Systems

- Great variation in:
 - Sources and frequency of data
 - Automated loading by EDI processes
 - Manual data entry by providers at POC/TOC
 - Manual data entry by support staff
 - Interface to providers at point of care
 - Delivery of static “exception” reports from remote system (paper, email)
 - Web-based access to centralized system
 - Workstation access to standalone system
 - Integration with routine care processes
 - Scheduling, documentation, billing

Registries for Chronic Disease Care

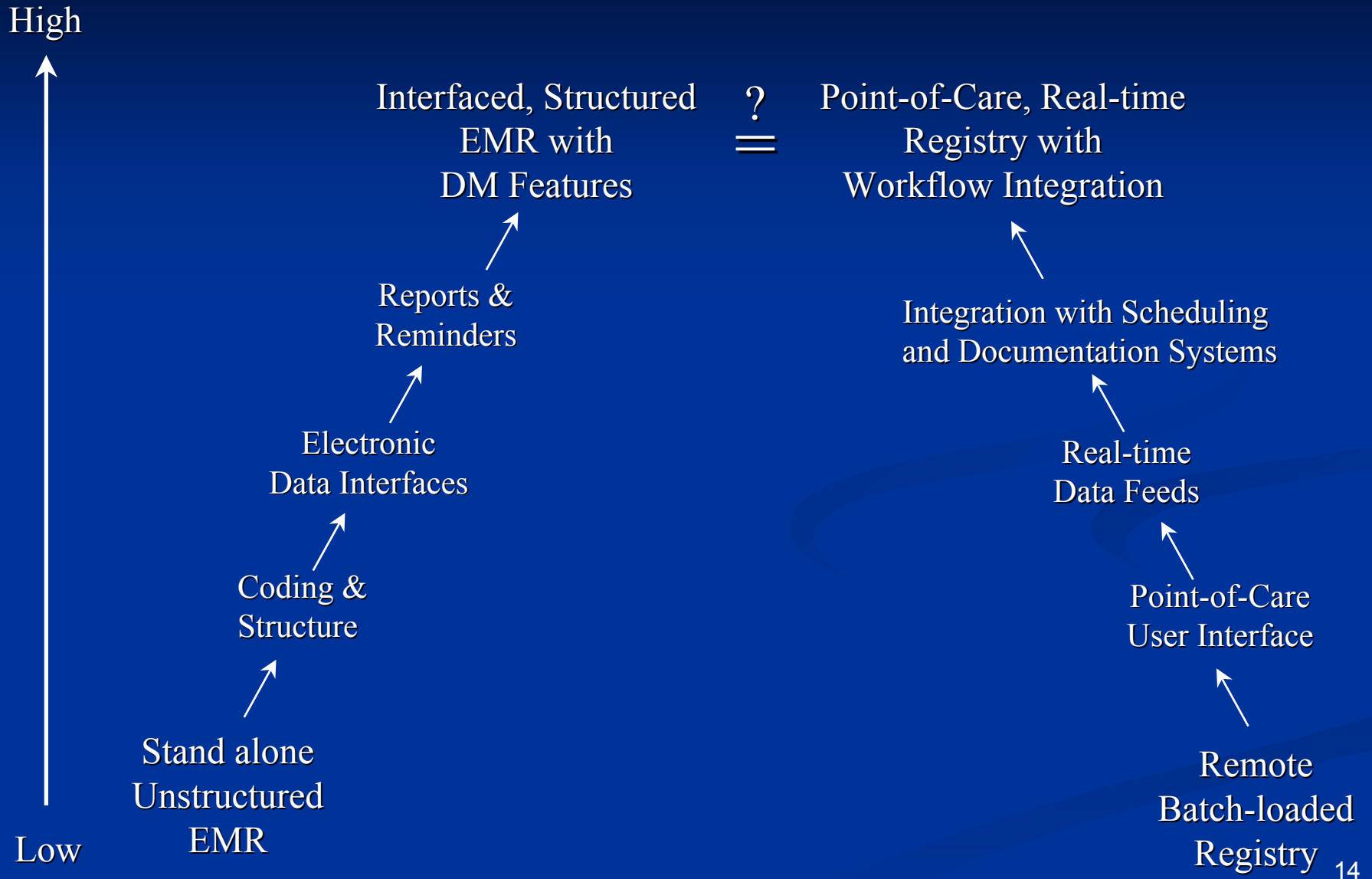
■ Pros

- Low to no barriers to physician adoption
- Specifically designed for the task

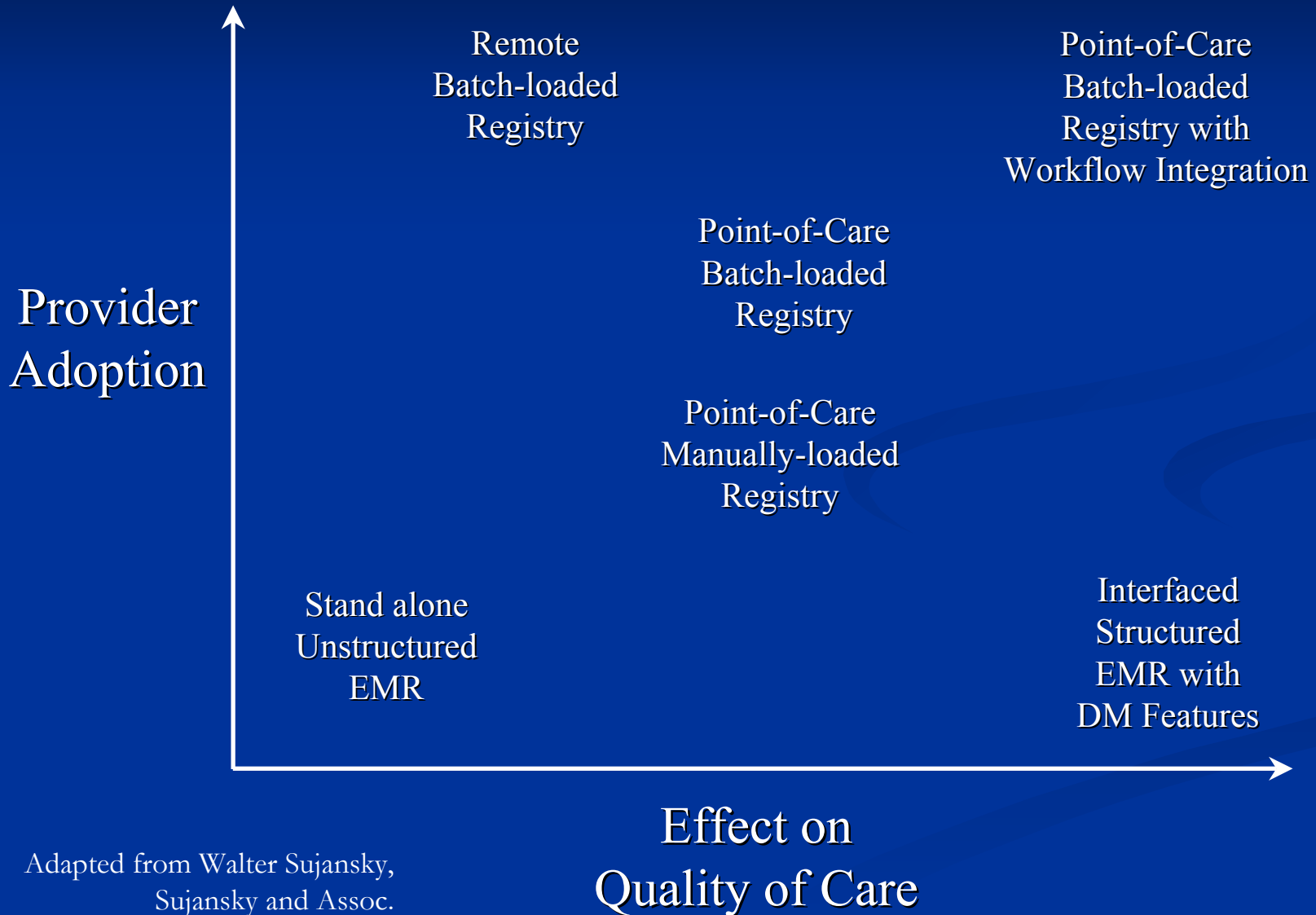
■ Cons

- Manual data loading entails redundant work
- Automated data loading often entails delays
- Limited or no integration with routine workflow (scheduling, documentation)
- Some systems lack point-of-care access

Effect of I.T. on Quality of Care



Value Space



Point-Of-Care in Diabetes

- Administrative data vs. point-of-care data
- Encounter note as a *planned visit* protocol
- Availability of clinical data: BMI, blood pressure, foot exam, aspirin, tobacco, self-management goals
- Lab, pharmacy, services billed (>30 day delay) available administratively only in managed care
- Offices need a single system for all patients

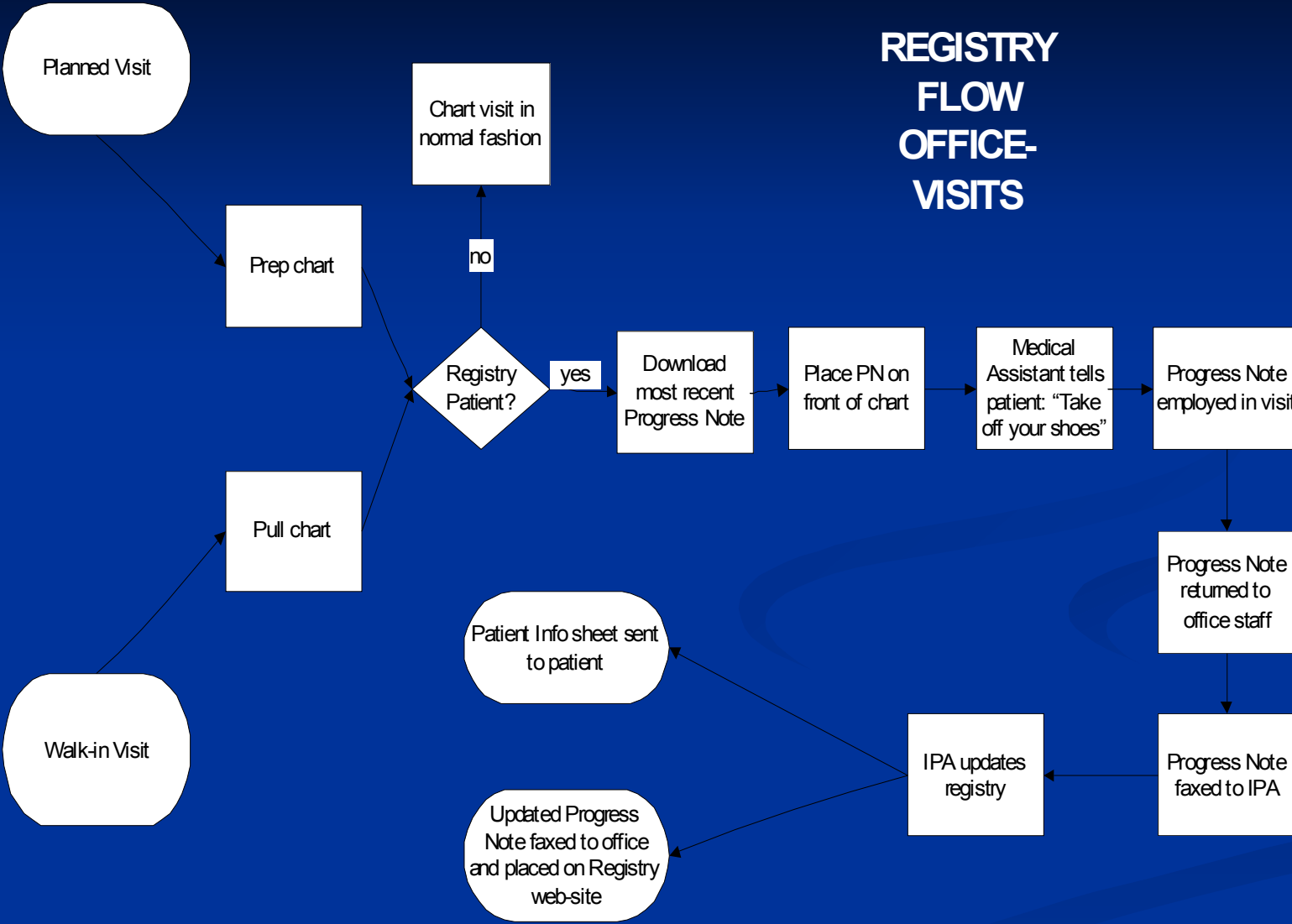
Humboldt Diabetes Project

- IPA with >95% of clinicians (MDs, advanced practitioners, behavioral health professionals, podiatrists)
- Managed care <10% of patients
- Point-of-care as primary source of data
- Functionality key to sustaining programs
- CLG: “Invite implementers into the planning process...”
- Pilot systems before wide implementation
- Office managers, medical assistants critical to design

Information/Decision Support

- Build vs. buy: public domain (control, free) vs. proprietary (support, cost)
- C-DEMS: public domain, open source, customizable, control data and reporting
- 3770 total (803 study, 2967 registry only)
- Progress Note: *best practice tool actualized*
- Patient summary: focus group
- Prompts and reminders: keep it simple (HbA1c>9, no HbA1c in past 6 months)

REGISTRY FLOW OFFICE- VISITS



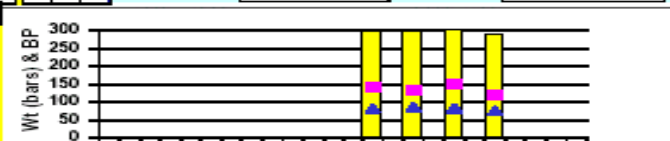
Patient Progress Note

Lindsay & Glaseroff, MDs

Humboldt Diabetes Project - Fax 443-2527

Last Visit	This Visit	BOGUS	Clinician: Glaseroff, Alan	Diabetes Diagnosis Date: 5/10/1986
<i>Date (mm/dd/yy)</i> 5/10/2003		Last Name: Doe	First Name: Jane	Sex: F DOB: 1/1/1950
<i>Weight (lbs)</i> 290.00		Address: 12345 Main Street; Eureka, CA 95501	Phone (H): (707) 555-1212	
<i>Height (ins)</i> 72.00		Language: English	Ethnicity: White	BMI: 39.3 Insurance: CaliforniaCare
<i>BP - Sys/Dia</i> 120 / 75				

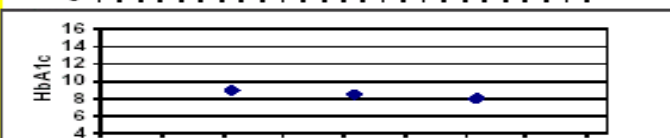
Conditions	Dx	D/C	Add
Cerebrovascular	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CVD	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Depression	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DM-1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DM-2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HTN	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hyperlipidemia	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hypothyroidism	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Metabolic Syndrome	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nephropathy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Neuropathy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Periph Vascular	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Retinopathy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Date	Wt	Sys	Dia
11/1/2002	295.00	141	82
1/1/2003	296.00	132	87
3/1/2003	300.00	150	80
5/10/2003	290.00	120	75

STUDY

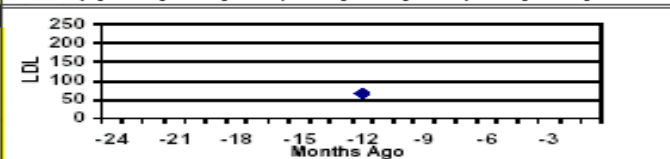
Meds	Rx	C/I	D/C	Add
ACE Inhibitor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ARB	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ASA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BP Med	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Diuretic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Glucosidase Inhibito	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insulin	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lipid Agent	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Meglitinide	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Metformin	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sulfonylurea	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TZD	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Date	Result
4/1/2002	9.0
10/1/2002	8.5
4/1/2003	8.0

Clinician-Patient Interface Time:
_____ min

Total Counseling Time:
_____ min



Date	Result
10/1/2002	68

Other Vitals

Pulse _____

Resp: _____

Temp _____

MA Inits _____

SDM Stage	<input type="checkbox"/> MNT	<input type="checkbox"/> Insulin 2
	<input checked="" type="checkbox"/> Orals	<input type="checkbox"/> Insulin 3
	<input type="checkbox"/> Combo	<input type="checkbox"/> Insulin 4

Services	Last Date	Done	Ref	Decl
Alcohol Asmnt	DUE - 10/03	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tobacco Asmnt	DUE - 10/03	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Exer Asmnt	DUE - 10/03	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dental Ex	1/2/2003	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Retinal Ex	2/5/2003	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BASICS	DUE - 10/03	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SM Review	DUE - 10/03	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Foot Ex	DUE - 06/03	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Monofilament Ex	DUE - 10/03	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Flu Vac	DUE - 10/03	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pne Vac	3/1/2003	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Self Management Goals	
Home BG Goals:	Between 70 and 140
Nutritional:	veggies for a pre-meal snack
Exercise:	brisk walking 20 minutes each day

Labs	Last Date	Last Result	New Date	New Result	Ref	Decl
HbA1c	DUE - 10/03	8			<input type="checkbox"/>	<input type="checkbox"/>
Cholesterol	DUE - 10/03	117			<input type="checkbox"/>	<input type="checkbox"/>
HDL	DUE - 10/03	46			<input type="checkbox"/>	<input type="checkbox"/>
LDL	DUE - 10/03	68			<input type="checkbox"/>	<input type="checkbox"/>
Triglycerides	DUE - 10/03	52			<input type="checkbox"/>	<input type="checkbox"/>
BUN					<input type="checkbox"/>	<input type="checkbox"/>
Serum Creatinine	DUE - 10/03				<input type="checkbox"/>	<input type="checkbox"/>
K+					<input type="checkbox"/>	<input type="checkbox"/>
ALT (SGPT)	DUE - 10/03				<input type="checkbox"/>	<input type="checkbox"/>
Gross Proteinuria	DUE - 10/03	180			<input type="checkbox"/>	<input type="checkbox"/>
Al/Cree Ratio	DUE - 10/03				<input type="checkbox"/>	<input type="checkbox"/>
MicAl	DUE - 10/03				<input type="checkbox"/>	<input type="checkbox"/>

Notes:

Clinician Signature: _____

Stencils Note

My Clinic

Vitals	Last Visit	This Visit	H			
Date	12/12/2003					
Weight	192.8					
Height	5' 0.0"					
Pulse						
Resp Rate						
Temp						
Systolic BP	134					
Diastolic BP	66					
BMI	37.6					
Waist Circ In.						

Chronic Conditions		
Diagnosed Conditions	Dx Date	D/R
DM Type 2	1/12/00	<input type="checkbox"/>
MicAlburia	1/3/81	<input type="checkbox"/>
Neuropathy	4/3/02	<input type="checkbox"/>
Hypertension	8/15/01	<input type="checkbox"/>
Dyslipidemia	3/8/00	<input type="checkbox"/>
DepressionNOS	10/3/01	<input type="checkbox"/>

Potential Conditions	Add
Retinopathy	<input type="checkbox"/>
Nephropathy	<input type="checkbox"/>
CAD	<input type="checkbox"/>
Post-MI	<input type="checkbox"/>
PAD	<input type="checkbox"/>
MDD-recurrent	<input type="checkbox"/>
MDD-single	<input type="checkbox"/>
Insomnia	<input type="checkbox"/>
Chronic Pain	<input type="checkbox"/>

Dx Date=diagnosis date, D/R=diagnosis resolved

Medications					
Class	Name	Date	D/C	C/I	Dec
AG Inhibitor	Class	8/15/01	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Biguanides	Glucophage	2/11/00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insulin	Class	4/3/02	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sulfonylurea	Class	1/16/02	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TZD/Glitazon	Class	11/29/00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ARB	Class	7/24/02	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Antiplate/thrombASA		1/3/02	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Statins	Class	1/16/02	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Smoke Cess	Class	10/3/01	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Other Medications to Consider					
	Add	C/I	Dec		
Beta Blocker	Class	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Diuretic	Class	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ACE Inhibitor	Class	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SSRIs	Class	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

D/C=discontinue, C/I=contra-indicated, Dec=decline

Laboratory Test Results				
Test	Value	Date	PRef	RefDec
HbA1c	12.2	12/12/03	<input type="checkbox"/>	<input type="checkbox"/>
Chol	220	12/12/03	<input type="checkbox"/>	<input type="checkbox"/>
LDL	132	12/12/03	<input type="checkbox"/>	<input type="checkbox"/>
LDL Goal			<input type="checkbox"/>	<input type="checkbox"/>
HDL	50	12/12/03	<input type="checkbox"/>	<input type="checkbox"/>

Encounter Provider		Encounter Type	
Chart #	C-10348	Last	Example6
DOB	7/3/1947	First	Susan
City	Cedwick	MI	
State	TX	Age	57
Zip	78537	Address	6843 Millwood Dr.
Phone #	(512) 555-5486		
Race	Hispanic	Language	Spanish
Homeless		Not Homeless	
Insurance	Other		

Laboratory Test Results				Consults and Education			
Test	Value	Date	PRefRefDec	Cons/Edu	Date	PRefRefDec	
Triglyc	188	12/12/03	<input type="checkbox"/>	Foot Exam	7/3/02	<input type="checkbox"/>	<input type="checkbox"/>
MIAlCr	108.7	12/12/03	<input type="checkbox"/>	DM Edu	6/3/02	<input type="checkbox"/>	<input type="checkbox"/>
Potassium	4.1	12/12/03	<input type="checkbox"/>	Nutrit Edu	6/3/02	<input type="checkbox"/>	<input type="checkbox"/>
Creat	0.6	12/12/03	<input type="checkbox"/>	Retinal Exam	5/28/00	<input type="checkbox"/>	<input type="checkbox"/>
TSH			<input type="checkbox"/>	CVD Educ		<input type="checkbox"/>	<input type="checkbox"/>
ALT	11	12/12/03	<input type="checkbox"/>	EtoH/Drug Tx		<input type="checkbox"/>	<input type="checkbox"/>
AST	10	12/12/03	<input type="checkbox"/>	CSD FU		<input type="checkbox"/>	<input type="checkbox"/>
PRef=previous referral, Ref=referral, Dec=declined				Depression Scrn	12/3/01	<input type="checkbox"/>	<input type="checkbox"/>
				Ment Health		<input type="checkbox"/>	<input type="checkbox"/>
				Ca S-D Making		<input type="checkbox"/>	<input type="checkbox"/>
				Pt Mammo RsIts		<input type="checkbox"/>	<input type="checkbox"/>
				Pt Pap Results		<input type="checkbox"/>	<input type="checkbox"/>
				Vit Mot Plan		<input type="checkbox"/>	<input type="checkbox"/>
				Dental Exam		<input type="checkbox"/>	<input type="checkbox"/>
				PCPDentalCnsl		<input type="checkbox"/>	<input type="checkbox"/>
				Advise QuitTab	12/12/03	<input type="checkbox"/>	<input type="checkbox"/>
				SM Goal Set	12/12/03	<input type="checkbox"/>	<input type="checkbox"/>

Other Diagnostic Tests			
Test	Result	Date	PRefRefDec
Echo			<input type="checkbox"/>
EKG			<input type="checkbox"/>
CardioStress Tes	Negative	5/8/02	<input type="checkbox"/>
Pap Smear	LSIL	4/19/03	<input type="checkbox"/>
Mammogram	2-Negati	10/24/02	<input type="checkbox"/>
Colposcopy	CIN1	8/9/03	<input type="checkbox"/>
ColonCaScreen	Colonos	3/12/03	<input type="checkbox"/>

Vaccinations and Immunizations			
Vac/Imm	Date	PRef	RefDec
Hep B vac #1		<input type="checkbox"/>	<input type="checkbox"/>
PPV23		<input type="checkbox"/>	<input type="checkbox"/>
Flu Vac	12/12/03	<input type="checkbox"/>	<input type="checkbox"/>
IPV/IOPV #1		<input type="checkbox"/>	<input type="checkbox"/>

Risk Factors			
Family History	Status	Y	H U
FamHxPhysAbuse		<input type="checkbox"/>	<input type="checkbox"/>
FamHxTrauma		<input type="checkbox"/>	<input type="checkbox"/>

Behaviors	C	P	H
SM BG	current	<input type="checkbox"/>	<input type="checkbox"/>
Smoking		<input type="checkbox"/>	<input type="checkbox"/>
SubstanceAbuse	never	<input type="checkbox"/>	<input type="checkbox"/>
TobaccoETS		<input type="checkbox"/>	<input type="checkbox"/>

C=current, P=past, N=never, Y=yes, N=no, U=unknown

Other Measures				
Test	Value	Date	PRef	RefDec
Exercise wk	7	11/20/02	<input type="checkbox"/>	<input type="checkbox"/>
LVEF	50	5/8/02	<input type="checkbox"/>	<input type="checkbox"/>
CurrentFunction			<input type="checkbox"/>	<input type="checkbox"/>
Current PHQ			<input type="checkbox"/>	<input type="checkbox"/>
NewEpiFunction			<input type="checkbox"/>	<input type="checkbox"/>
New Epi PHQ			<input type="checkbox"/>	<input type="checkbox"/>

Other Notes

SM Goal Desc
Meter Type:
Encount Note: private
CSD FU Desc:private
Dep Tx Plan:

Reminders

Colon Cancer Screen 1
No Self Management G 1
Abnormal Pap Requirin 3
Fasting Lipid Panel not 3
Pap Smear Results Not 3

3100 Edgewood Road Eureka, CA 95501

(707) 443-4553

hdp@hdfmc.com

Date:		
Referred to:		
Patient Name:		
DOB:	Gender:	Home Phone:
Address:		

Referred by:	
Phone:	Fax:
Referring Provider Signature:	

Reason for Referral:

Findings:

<input type="checkbox"/> <u>NO RETINOPATHY</u> <p style="text-align: center;"><u>Treatment Recommended</u></p> <input type="checkbox"/> Recheck in 1 year	<input type="checkbox"/> <u>EARLY NON PROLIFERATIVE DIABETIC RETINOPATHY (NPDR)</u> <input type="checkbox"/> Microaneurysms <input type="checkbox"/> Sparse Blot and Dot <input type="checkbox"/> Lipid <p style="text-align: center;"><u>Treatment Recommended</u></p> <input type="checkbox"/> Ophthalmology Consult <input type="checkbox"/> Angiogram <input type="checkbox"/> Laser-Focal Grid <input type="checkbox"/> Follow-up Appointment <p style="text-align: center;"><u>Status</u></p> <input type="checkbox"/> Stable <input type="checkbox"/> Improving <input type="checkbox"/> Worse	<input type="checkbox"/> <u>NPDR MODERATE TO SEVERE</u> <input type="checkbox"/> Clinically Sig. Macular Edema <input type="checkbox"/> Nerve Fiber Layer Infarct (Cotton Wool Patch) <input type="checkbox"/> Venous Abnormality <input type="checkbox"/> Intraretinal Microvascular Abnormality <p style="text-align: center;"><u>Treatment Recommended</u></p> <input type="checkbox"/> Ophthalmology Consult <input type="checkbox"/> Fluorescein Angiogram <input type="checkbox"/> Laser-Focal / Pan Retinal Photocoagulation (PRP) <input type="checkbox"/> Follow-up Appointment <input type="checkbox"/> Retinal Consult <p style="text-align: center;"><u>Status</u></p> <input type="checkbox"/> Stable <input type="checkbox"/> Improving <input type="checkbox"/> Worse	<input type="checkbox"/> <u>PROLIFERATIVE DIABETIC RETINOPATHY</u> <input type="checkbox"/> Neovascular Optic Nerve Head <input type="checkbox"/> Neovascular Retinal Surface <input type="checkbox"/> Vitreous Hemorrhage <input type="checkbox"/> Traction - Retinal Detachment <p style="text-align: center;"><u>Treatment Recommended</u></p> <input type="checkbox"/> Ophthalmology Consult <input type="checkbox"/> Fluorescein Angiogram <input type="checkbox"/> Laser-Focal / Pan Retinal Photocoagulation (PRP) <input type="checkbox"/> Vitrectomy <input type="checkbox"/> Retinal Detachment Surgery <input type="checkbox"/> Endoscopic Laser <p style="text-align: center;"><u>Status</u></p> <input type="checkbox"/> Stable <input type="checkbox"/> Improving <input type="checkbox"/> Worse
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Follow-up Recommended Return: _____ Days _____ Month(s) _____ Year(s) Alert Risk: Minimal Moderate High

Clinician Name: _____ Signature: _____ Date: _____

Fax Back to:	AND	Humboldt Diabetes Project (707)443-2527
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HUMBOLDT DIABETES PROJECT

3100 Edgewood Road Eureka, CA 95501 (707) 443-4553 hdp@hdmfmc.com

Jane Doe
12345 Main Street
Eureka, CA 95501

Friday, July 25, 2003

Patient Progress Summary

This summary is being provided to you to better enable you to manage your diabetes. Please take every opportunity to discuss with your health care provider what your personal goals are for the management of your diabetes.

Test/Type of Treatment	How Often?	Standard Goal	My Goal	Date Last Done	Last Result
Blood Pressure Test <i>to check for high blood pressure</i>	Every visit	Systolic: <130 Diastolic: <80		5/10/2003	Systolic: 120 Diastolic: 75
Blood test for HbA1c <i>to check your avg blood sugar over the prev. 2-3 mos.</i>	Every 3 months	less than 7%		4/1/2003	8
Blood tests for HDL "good" cholesterol LDL "bad" cholesterol <i>to check for risk of heart disease</i>	Every 12 months	HDL: greater than 40 LDL: less than 100		10/1/2002	HDL: 46 LDL: 68
Urine test for protein level <i>to check for signs of kidney damage</i>	One every 12 months				
Gross Protein		Negative		10/1/2002	
Urine Albumin/Creatinine Ratio		less than 30			
Microalbumin		0			
Dental Exam <i>to check for tooth decay and gum disease</i>	Every 6 - 12 months			1/2/2003	
Eye Exam <i>to check for eye damage caused by diabetes</i>	Every 12 months				
Foot Exam <i>to check for poor blood circulation and nerve damage</i>	Every 12 months			3/1/2003	
Flu Vaccine <i>to help prevent the flu</i>	Every Fall			10/1/2002	
Pneumonia Vaccine <i>to help prevent pneumonia, meningitis and sepsis</i>	Every 6 years			3/1/2003	
BASICS Diabetes Education <i>to learn self management methods</i>	Every 12 months				

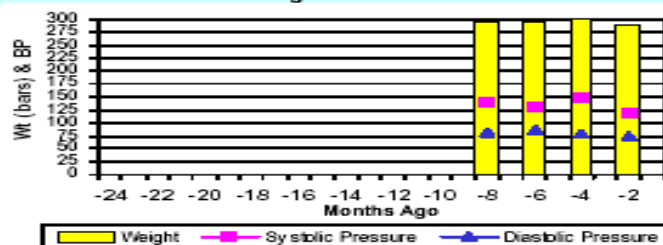
Self Management Goals

Exercise: brisk walking 20 minutes each day

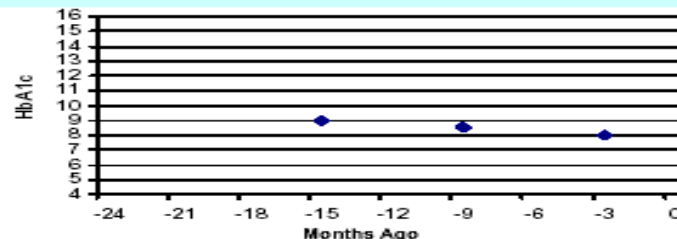
Blood Glucose: Between 70 and 140

Nutrition: veggies for a pre-meal snack

Your Weight and Blood Pressure



Your HbA1c



HDP INTERVAL DATA

	October, 2003	October, 2004
Measure	Results (n=802)	Results (n=778)
HbA1c control: >9% (poor control)	8%	7%
HbA1c control: <7% (good control)	52%	55%
Patients with BP <140/90	62%	59%
Patients with BP <130/80	32%	33%
Nephropathy Assessment Done	42%	70%
Patients with LDL<130	60%	73%
Patients with LDL <100	32%	44%
Retinal Exam Done	42%	60%
Smoking status and cessation advice or treatment	82%	90%
Foot Exam Done	44%	68%

Patient Summary SF-12

	Baseline	Follow-up	National Average
Physical Functioning	41.7	43.4	41.9
Role Physical	41.1	43.7	43.0
Bodily Pain	41.1	42.8	44.4
General Health	40.3	44.1	41.3
Vitality	43.9	46.8	46.0
Social Functioning	44.3	46.6	44.8
Role Emotional	41.4	45.0	44.8
Mental Health	46.1	48.7	47.8
Physical Component	40.6	42.6	41.5
Mental Health Component	45.4	48.8	47.3

In general, would you say your health is: (check one box)

	Excellent	Very Good	Good	Fair	Poor
Baseline	4%	19%	37%	30%	10%
F/U	5%	27%	42%	22%	4%

How effective do you believe your health care provider is in managing your diabetes?

	Not effective at all	Not very effective	Somewhat effective	Effective	Very effective
B	1%	3%	18%	45%	34%
F	<1%	1%	13%	44%	41% ²⁶

What Should You Do?

- Single practice vs. widespread effort (much more effective)
- Identify the patients with diabetes from billing data (e.g. ICD-9 codes 250.xx) or Problem Lists
- Performance improvement team (implementers as planners): *“What are we trying to do?”*
- Implementation is everything: *“The other three wheels...”*

IT Decision

- \$: *“the road to perdition is littered with the bones of the well-intended...”*
- Public domain vs. proprietary: in-house IT staff?
- Goals: rapidly improve care vs. overall practice makeover
- PDSA cycles: small tests of change
- Change package as a resource, not a bible
- Follow the data: dashboards