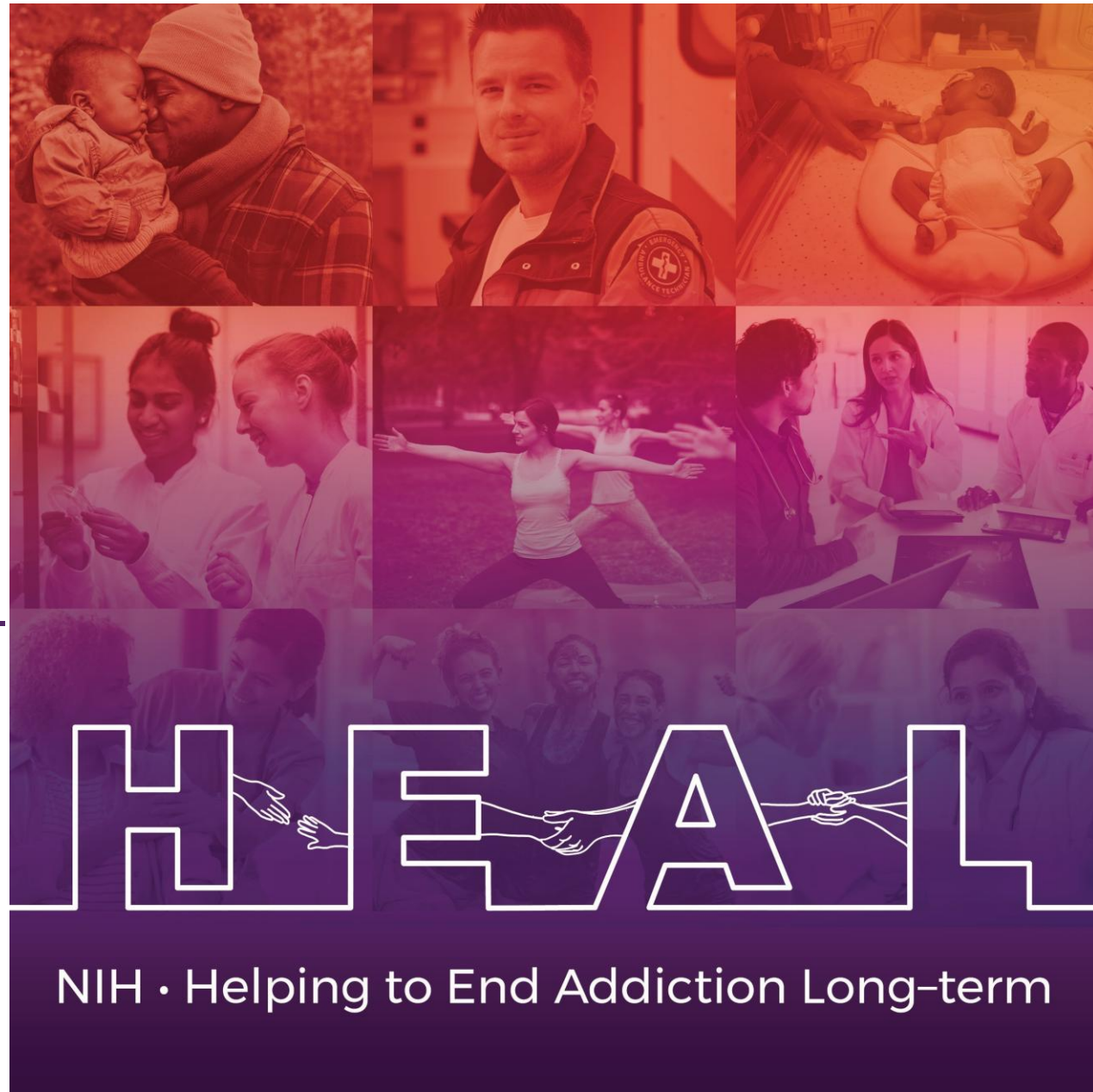


CLEAR

**Criminal-Legal
Economic Analysis
& Resource Center**

JCOIN
Health Economics Analytics Team
HEAT 2.0



NIH • Helping to End Addiction Long-term

NIH HEAL Initiative and Helping to End Addiction Long-term are service marks of the U.S. Department of Health and Human Services.

Microcosting Agenda

- Microcosting Resources
- Microcosting Data Collection
- Types of Costs and Phases
- Budget Impact Tool Publication
- New & Improved Budget Impact Tool

Generalizability vs Site Specific

- Generalizability
 - **Bureau of Labor Statistics or O*Net**
 - Salaries
 - [Occupational Employment and Wage Statistics](#)
 - [O*NET OnLine](#)
 - **Federal Supply Schedule**
 - Supplies and Equipment Costs
 - [VA Federal Supply Schedule Service](#)
 - **GSA**
 - Cost for Travel (per mile)
 - Lodging, Meals
 - [Home | GSA](#)

Microcosting Data Collection

- Consists of gathering pertinent administrative data, where possible, and conducting semi-structured interviews with relevant site personnel in order to capture quantitative data regarding the resources (time and materials) used to implement and sustain the intervention
- Relevant personnel are identified with the assistance of the parent study's lead investigators and each site's PI
- “Relevant personnel” consist of individuals who have the most knowledge of the site's day-to-day operations as they pertain to the intervention of the site's day-to-day operations as they pertain to the intervention

Microcosting

- An in-person site visit is conducted within the first ~6 to ~12 months following enrollment of study participants at the site
- The purpose of the site visit is to:
 - Identify the resources that were required to implement the intervention
 - Develop an understanding of the intervention integration process & clinic workflow
 - Estimate the resources that will be required to manage the intervention on a day-to-day basis

Microcosting Interviews

- A follow-up interview will be conducted upon the site reaching a “steady-state” to finalize sustainment resource requirements
- “Steady-state” is determined with the assistance of the relevant site personnel
- Follow-up interviews typically brief (<60 minutes), and conducted virtually
- Site-specific preliminary results written up and shared with relevant personnel to ensure accuracy

Microcosting

- Microcosting entailed systematically capturing, cataloging, and valuing changes in resources resulting from the intervention
 - Accounting costs = the actual expenditures of all resources used by the treatment program
 - Economic costs = accounting costs + opportunity costs (e.g., donated services, volunteer effort, subsidized rent, etc.)

Budget Impact Tool Categories on Types of Cost

- Resources/costs are categorized as “fixed,” “time-dependent,” or “variable”
 - **Fixed**: resources/costs that are incurred only once, and are not directly related to the number of participants
 - **Time-dependent**: resources/costs that are recurring, but fixed over a given time-period
 - **Variable**: resources/costs that are a direct function of the number of participants

Budget Impact Tool Phases

- **Implementation:** costs incurred for purposes of start-up, and over the time-period required for facility to hit a steady-state with regard to intervention
 - Includes **fixed costs** associated with intervention planning and other one-time resources required for start-up + **time-dependent & variable costs** incurred over some initial time period
 - We assumed fixed costs would be distributed over the course of the first 12 months following start-up, for budgeting purposes
- **Sustainment:** costs required to continuously operate the intervention over time
 - Includes the **time-dependent** and **variable costs** that would be incurred in subsequent years

Budget Impact Tool



ELSEVIER

Contents lists available at [ScienceDirect](#)

Journal of Substance Use and Addiction Treatment

journal homepage: www.journals.elsevier.com/journal-of-substance-use-and-addiction-treatment



Budget impact tool for the incorporation of medications for opioid use disorder into jail/prison facilities



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[https://www.jsatjournal.com/article/S2949-8759\(22\)00014-5/pdf](https://www.jsatjournal.com/article/S2949-8759(22)00014-5/pdf)

Upgrading Budget Impact Tool

- Integrating the EPIS model & framework into the Budget Impact Tool
- EPIS model
 - Exploration
 - Preparation
 - Implementation
 - Sustainment
- EPIS framework
 - Inner Context
 - Outer Context
 - Bridging Factors
 - Innovation Factors

EPIS Model

- **Exploration**
 - Evaluating needs of an evidence-based practice
- **Preparation**
 - Plan on integrating the evidence-based practice
- **Implementation**
 - The practice of the intervention is implemented
- **Sustainment**
 - Intervention is at a steady-state

EPIS framework factors

- **Outer Context**

- describes the environment external to the organization. characteristics of the individuals who are the targets of the EBP including governments, funders, managed care organizations, professional societies, advocacy groups

- **Inner Context**

- characteristics within an organization such as leadership, organizational structures and resources, internal policies, staffing, practices, and characteristics of individual adopters (e.g., clinicians or practitioners)

- **Bridging Factor**

- influence the implementation process as the inner context of organizations is influenced by the outer system in which the organization operates. Include processes such as interagency collaboration, community-academic partnerships.

- **Innovation Factor**

- characteristics of the innovation or EBP characteristics, and/or the fit of the innovation at system, organization, provider, and patient levels.

Continued Factors in EPIS

Bridging Factors	Innovation Factors
Community-academic partnerships	Characteristics of the innovation
Existing & developing relations between policy and practice entities	Fits in service setting
Formal & informal influence & directives	Adopter, client, or patient is supported
Collaboration Management	Relationship with stakeholders
	Flexibility in use of intervention

Budget Impact Tool Example

Implementing & Sustaining Medications for Opioid Use Disorder (MOUD) in jails integrating the EPIS framework

Resource Category	Annual Totals
Exploration Costs	\$0
Sociopolitical Context	\$0
Funding	0
Client Advocacy	\$0
Interorganizational Networks	\$0
Organizational Characteristics	\$0
Individual Adopter Characteristics	\$0
Preparation Costs	\$52,489
Sociopolitical Context	\$9,171
Funding	\$0
Client Advocacy	\$0
Interorganizational Networks	\$2,962
Organizational Characteristics	\$40,356
Leadership	\$0
Implementation Costs	\$118,111
Fixed Start-Up	\$81,836
Time- Dependent	\$28,090
Variable	\$8,184
Sustainment Costs	\$42,231
Time-Dependent	\$26,690
Variable	\$15,541
Pre-Implementation Costs	\$52,489
Total Costs Implementation year 1	\$160,342
Total Costs during subsequent years	\$42,231

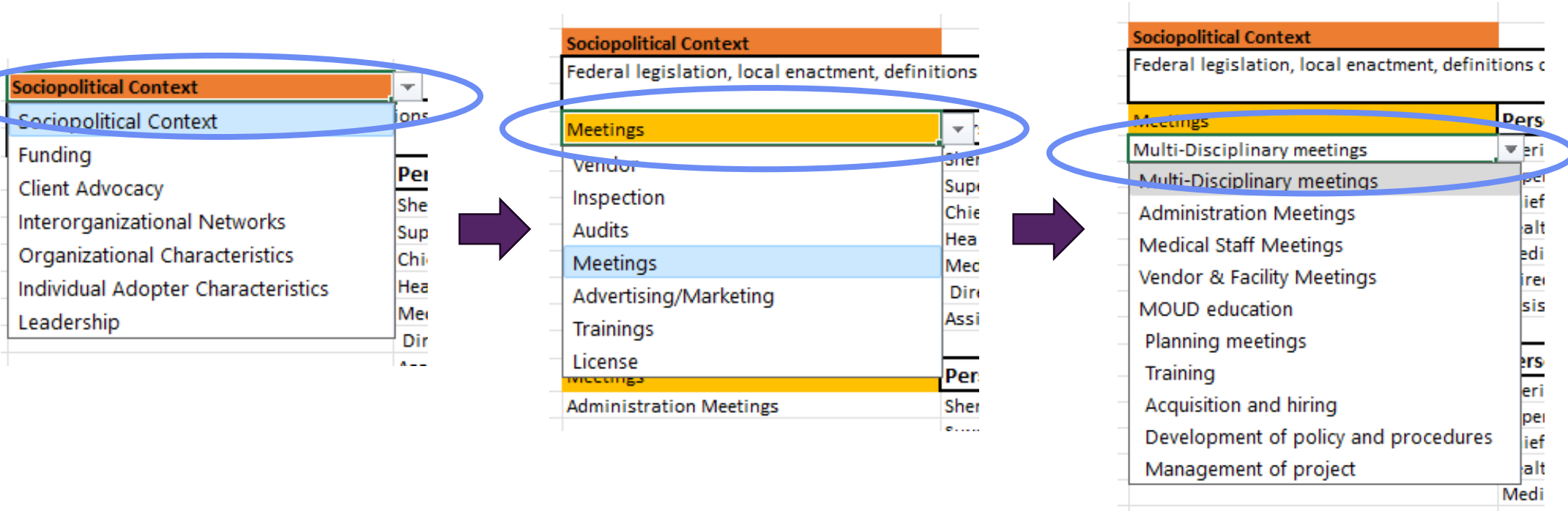
Exploration Contexts

Outer Context	Exploration
Sociopolitical Context	Legislation, Policies, Monitoring and Review <i>i.e., exploring the gaps that influence the setting of implementation (reviewing annual reports)</i>
Funding	Service grants, research grants, continuity of funding <i>i.e., how fiscal support will be provided (contracting arrangements)</i>
Client Advocacy	Consumer/Community organization <i>i.e., Support for system change based on needs/priorities (class-action lawsuits)</i>
Interorganizational Networks	Direct & Indirect networking, professional organizations, technical assistance centers <i>i.e., collaborations from organization(s) with knowledge of the implementation strategy is shared/developed</i>
Inner Context	
Organizational Characteristics	Absorptive capacity (knowledge/skills, readiness for change), culture, climate, leadership <i>i.e., Structure that exists in the organization that may influence implementation</i>
Individual Adopter Characteristics	Values, goals, social networks, perceived need for change <i>i.e., Attitudes towards the implementation strategy</i>

Preparation Contexts

Outer Context	Preparation	Costing Time
Sociopolitical Context	Federal legislation, local enactment, definitions of “evidence” <i>i.e., mandate being implemented</i>	Time a facilitator is looking into an intervention to work
Funding	Support tied to federal and state policies <i>i.e., receiving state funds</i>	Structure on receiving funds, contracting, vendors
Client Advocacy	National advocacy, class action lawsuits <i>i.e., marketing for system change based on needs/priorities</i>	Community service quality
Interorganizational Networks	Organizational linkages, leadership ties, information transmission <i>i.e., Collaboration</i>	Meetings with organizations to create the strategy. Inter-agency collaboration and team involvement
Inner Context		
Organizational Characteristics	Size, role specialization, knowledge/skills/expertise, values <i>i.e., readiness for change, support for implementation strategy</i>	Senior leadership buy-in, Staff training, education, focus groups
Leadership	Culture embedding, championing adoption <i>i.e., identifying local champion(s) to provide oversight on implementation strategy</i>	Attitudes toward change, Identifying a local champion

Preparation Costs



Sociopolitical Context							\$ 26,368
Federal legislation, local enactment, definitions of "evidence"							
Meetings	Personnel	\$/hr	hrs	# of times	#of employees	\$ 9,171	
Multi-Disciplinary meetings	Sheriff	\$ 86	4	1	4	\$ 1,375	
	Superintendent	\$ 67	4	1	4	\$ 1,080	
	Chief Of Security	\$ 67	4	1	4	\$ 1,080	
	Health Services Administrator (Assistant St	\$ 66	4	1	4	\$ 1,060	
	Medical Director (Physician)	\$ 140	4	1	4	\$ 2,233	
	Director of Nursing	\$ 67	4	1	4	\$ 1,072	
	Assistant Superintendent (AS) of Operation	\$ 80	4	1	4	\$ 1,273	

Implementation Contexts

Outer Context	Implementation
Sociopolitical Context	Legislative priorities, administrative costs
Funding	Training, sustained fiscal support, contracting arrangements, community-based organizations
Interorganizational Networks	Professional associations, cross-sector, contractor associations, information sharing, cross discipline translation
Intervention Developers	Engagement in implementation
Leadership	Cross level congruence, effective leadership practices
Inner Context	
Organizational Characteristics	Structure, priorities/goals, readiness for change, receptive context, culture/climate

Implementation Costs

- Focus on the bridging and innovation factors which are based on collaboration within the organization and categorize them as
 - **Fixed Start-Up**
 - Meetings, Trainings, Supplies, Contractors
 - **Time-Dependent (during implementation)**
 - Meetings, Trainings, Licenses, medication delivery
 - **Variable (during implementation)**
 - Direct time with patient/client

Fixed Start-Up

Start Up Costs Per Site					\$ 81,836
Components	Unit Cost	Quantity			Total Costs
Supplies_Equipment					\$284,241
Dispensary	\$ 260,000		1		\$260,000
ITS Software	\$ 20,000		1		\$20,000
Surveillance Cameras	\$ 1,340		3		\$4,020
Patient Medication lock box	\$ 15		3		\$45
Security Door Access	\$ 44		4		\$176
Meetings	\$/hr	hrs	# of employees	# of times	\$ 72,741
Development of policy and procedures					
Superintendent	\$ 67	1	2	10	\$ 1,350
Health Services Administrat	\$ 66	1	1	10	\$ 662
Chief Of Security	\$ 67	1	1	10	\$ 675
Assistant Superintendents	\$ 58	1	3	10	\$ 1,745
CFO Assistant Superintend	\$ 71	1	1	10	\$ 708
Legislative Affairs	\$ 38	1	1	10	\$ 376
Clinical Manager	\$ 46	1	1	10	\$ 456
MOUD education					
Assistant Superintendent	\$ 67	3	1	10	\$ 2,025
Substance Abuse Education	\$ 39	3	3	10	\$ 3,525
Clinical Supervisor	\$ 52	3	2	10	\$ 3,103
Nurse Care Managers	\$ 55	3	2	10	\$ 3,309
Director of Nursing	\$ 78	3	2	10	\$ 4,655
Program Director	\$ 60	3	1	10	\$ 1,810
Management of project					
Health Services Administrat	\$ 66	50	1	2	\$ 6,624
Director of Nursing	\$ 67	50	3	2	\$ 20,092
VP of Operations	\$ 80	50	1	2	\$ 7,957
VP of Clinical Services	\$ 80	50	1	1	\$ 3,979
OOD Treatment Director	\$ 74	40	1	1	\$ 2,960
medical provider	\$ 168	40	1	1	\$ 6,729
Trainings					
Stigma					
Social Worker	\$ 38	1	3	1	\$ 113
Correctional Officers	\$ 41	1	11	1	\$ 456
OOD Treatment Director	\$ 74	1	1	1	\$ 74
Facilities Manager	\$ 48	1	1	1	\$ 48
Unit Manager	\$ 74	1	11	1	\$ 814
Trainings					
Unit Manager	\$ 74	40	1	1	\$ 2,960
Captain	\$ 29	40	4	1	\$ 4,630

JUSTICE COMMUNITY OPIOID INNOVATION NETWORK

Time-Dependent during Implementation

Time Dependent Costs					\$104,503
	Unit Cost	Annual			
License					\$3,100
DEA	\$500		1		\$1,550
NCCHC	\$50		1		\$500
CARF	\$1,000		1		\$50
Vendor					\$1,000
On-Site Vendors					\$0
Meetings	\$/hr	hrs	# of months	# of employees	\$54,750
Unit Manager	\$ 74	1	12	1	\$ 888
Captain	\$ 29	1	12	1	\$ 347
Lieutenants	\$ 33	1	12	2	\$ 789
Trainings	\$/hr	hrs	# of months	# of employees	\$46,653
Stigma					
MAT Officers	\$29	4	12	4	\$5,556
Unit Manager	\$74	4	12	1	\$3,553
Nurse	\$60	4	12	2	\$5,783
medical provider	\$168	4	12	1	\$8,075
Meetings	\$/hr	hrs	# of months	# of employees	\$14,047
Psychologist	\$32	4	12	1	\$1,533
Social Worker	\$38	4	12	3	\$5,409
Case Manager	\$74	4	12	2	\$7,105
Trainings	\$/hr	hrs	# of months	# of employees	\$23,687
Correctional Officers	\$41	4	12	9	\$17,904
Nurse	\$60	4	12	2	\$5,783
Meetings	\$/hr	hrs	# of months	# of employees	\$20,682
Captain	\$29	4	12	2	\$2,778
Correctional Officers	\$41	4	12	9	\$17,904
Meetings	\$/hr	hrs	# of months	# of employees	\$17,997
Counselor	\$73	4	12	4	\$14,018
Correctional Officers	\$41	4	12	2	\$3,979

Variable during Implementation

Per-Patient							\$8,184
Screening_Diagnosis							\$795
	DSM-5	Nurse	\$60	0.16	8		\$77
	Medical History	Nurse	\$60	0.5	8		\$241
	Documentation	Nurse	\$60	0.5	8		\$241
	COWS	Nurse	\$60	0.33	8		\$159
	Urine Screen should be: Drug Monitoring Buprenorphine & Naloxone 8ntPanel 8 w/conf (6-acetylmorphine, alcohol, amphetamines, benzodiazepines, buprenorphine, marijuana, cocaine, MDMA, opiates, Oxycodone)	Nurse	\$60	0.16	8		\$77
Buprenorphine							\$2,229
Initiation Buprenorphine							\$1,506
	Buprenorphine_Medication		Dosing	\$/mg	Patients/Month	Months	
	Sublocade		16mg Sublocade	290.6	5		
	Buprenorphine no Naloxone		4mg	1.46	5		
	Buprenorphine no Naloxone		8mg	2.92	5		
	Buprenorphine w/ Naloxone		8mg/2mg naloxone	4	5		
	Suboxone (film)		12mg	4.38	5		
			\$/Hr	Hours/patient	Patients/Month	Months	
		Nurse	\$60	1	25		\$1,506
Stabilization Buprenorphine Phase							\$542
	Buprenorphine_Medication		Dosing	\$/mg	Patients/Month	Months	
	Sublocade		300mg	115	1		
	Buprenorphine no Naloxone		12mg	4.38	3		
	Buprenorphine w/ Naloxone		12mg/3mg naloxone	3.75	3		
	Suboxone (film)		8mg/2mg naloxone	4	2		
			\$/Hr	Hours/patient	Patients/Month	Months	
		Nurse	\$60	1	9		\$542
Maintenance Phase							\$181
	Buprenorphine_Medication		Dosing	\$/mg	Patients/Month	Months	
	Sublocade		128mg Sublocade	115	1		
	Buprenorphine no Naloxone		16mg	5.84	2		
	Buprenorphine w/ Naloxone		4mg	1.46	2		
	Suboxone (film)		24mg	8.76	1		
			\$/Hr	Hours/patient	Patients/Month	Months	
		Nurse	\$60	0.5	6		\$181
Methadone							\$193
			Dosing	\$/mg	Patients/Month	Months	
	Initiation Methadone		35mg	0.14	4		
	Titration Phase		40mg	0.16	4		
	Weeks 1-2		60mg	0.24	4		
	Weeks 3-4		65mg	0.26	4		
	Maintenance		75mg	0.3	4		
			\$/Hr	Hours/patient	Patients/Month	Months	
		Nurse	\$60	0.16	20		\$193
Naltrexone							\$60
			Dosing	\$/mg	Patients/Month	Months	
	Initiation Oral Naltrexone		50mg	0.53	2		
	Vivitrol		380mg	338	2		
	Naltrexone Challenge		50mg	0.53			
			\$/Hr	Hours/patient	Patients/Month	Months	
		Nurse	\$60	0.5	2		\$60
Discharge Planning							\$4,421
			\$/Hr	Hours/patient	patients/month	Months	
	Case Manager		\$74	4	10		\$2,960
	Counselor		\$73	2	10		\$1,460
Therapy/Counseling							\$486
	Individual*		\$/Hr	Hours/patient	patients/month	Months	
	Social Worker		\$38	1	7		\$263
	Psychologist		\$32	1	7		\$224

Sustainment Contexts

Outer Context	Sustainment
Sociopolitical Context	Leadership, policies, federal/state initiatives, local service system, consent decrees
Funding	Fit with existing service funds, cost absorptive capacity, workforce stability impacts
Public-academic collaboration	Ongoing positive relationships, valuing multiple perspectives
Inner Context	
Organizational Characteristics	Leadership, embedded EBP culture, critical mass of EBP provision, social network support
Fidelity Monitoring/support	EBP role clarity, fidelity support system, supportive coaching
Staffing	Staff selection criteria, validated selection procedures

Sustained Time-Dependent Costs

<i>Time Dependent Costs</i>						\$26,690
	Unit Cost	Annual			\$1,550	
License						
	DEA \$500		1		\$500	
	NCCHC \$50		1		\$50	
	CARF \$1,000		1		\$1,000	
Vendor					\$0	
	On-Site Vendors					
Meetings	\$/hr	hrs	# of months	# of employees	\$12,340	
	Clinical Supervisor \$ 52	1	12	1	\$ 621	
	MAT Officers \$ 29	1	12	1	\$ 347	
	Assistant Superintendent \$ 67	1	12	2	\$ 1,620	
Trainings	\$/hr	hrs	# of months	# of employees	\$3,047	
Narcan						
	MAT Officers \$29	1	12	1	\$347	
	Director of Nursing \$67	1	12	1	\$804	
	Nurse \$60	1	12	2	\$1,446	
	Social Worker \$38	1	12	1	\$451	
Meetings	\$/hr	hrs	# of months	# of employees	\$9,752	
	OUD Treatment Director \$74	4	12	1	\$3,553	
	Nurse Care Managers \$55	4	12	1	\$2,647	
	Case Manager \$74	4	12	1	\$3,553	
Trainings	\$/hr	hrs	# of months	# of employees		
	#N/A					
	#N/A					
Meetings	\$/hr	hrs	# of months	# of employees		
	#N/A					
	#N/A					
Meetings	\$/hr	hrs	# of months	# of employees		
	#N/A					
	#N/A					

Sustained Variable Costs

Variable						\$15,541
Screening_Diagnosis						\$867
DSM-5	Intake Nurses	\$43	0.16	25		\$173
Medical History	Intake Nurses	\$43	0.16	25		\$173
Documentation	Intake Nurses	\$43	0.16	25		\$173
COwS	Intake Nurses	\$43	0.16	25		\$173
Urine Screen should be: Drug Monitoring Buprenorphine & Naloxone QntPanel 8 w/conf (6-acetylmorphine, alcohol, amphetamines, benzodiazepines, buprenorphine, marijuana, cocaine, MDMA, opiates, Oxycodone)						
HIV	Intake Nurses	\$43	0.16	25		\$173
Buprenorphine						\$542
Initiation Buprenorphine		\$60	1	8		\$482
Buprenorphine_Medication		Dosing	\$/mg	Patients/Month	Months	
	Sublocade	8mg Sublocade	\$291			
	Buprenorphine no Naloxone	12mg	\$4	2		
	Buprenorphine no Naloxone	4mg	\$1	2		
	Buprenorphine w/ Naloxone	8mg/2mg naloxone	\$4	2		
	Suboxone (film)	24mg	\$9	2		
Stabalization Buprenorphine Phase		\$/Hr	Hours/patient	Patients/Month	Months	
	Nurse	\$60	1	1		\$60
Methadone						\$241
Nurse		\$60	0.16	25		
		Dosing	\$/mg	Patients/Month	Months	
	Initiation Methadone	35mg	0.14	5		
	Tritration Phase	40mg	0.16	5		
	Weeks 1-2	60mg	0.24	5		
	Weeks 3-4	65mg	0.26	5		
	Maintenance	75mg	0.3	5		
Naltrexone						\$30
Nurse		\$60	0.5	1		\$30
		Dosing	\$/mg	Patients/Month	Months	
	Initiation Oral Naltrexone	50mg	0.59			
	Vivitrol	380mg	998	1		
	Naltrexone Challenge	50mg	0.59			
Discharge Planning						\$11,762
Case Manager		\$74	4	20		\$5,921
Counselor		\$73	4	20		\$5,841
Therapy/Counseling						\$2,039
Individual*		\$73	1	20		\$1,460
Psychologist		\$32	1	20		\$639

JUSTICE COMMUNITY OPIOID INNOVATION NETWORK

Budget Impact Tool with EPIS

Review it Live!

Next Steps

- The CLEAR tool kit
- Consultation Service Available
 - <https://www.jcoinctc.org/tta/>
- CLEAR website
 - <https://www.jcoinctc.org/about/hubs/clear/>