

FOCUS Project at Jackson Memorial Hospital: Logic Model and Initial Evaluation

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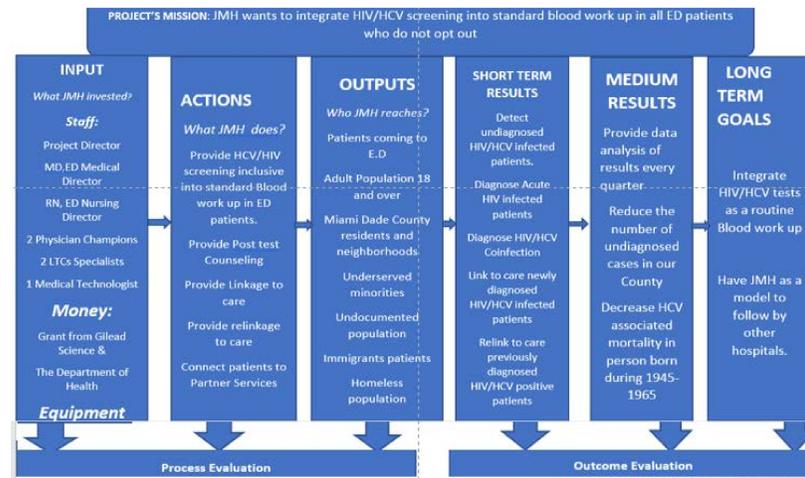
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INTRODUCTION

- In the U.S., more than one million individuals are infected with HIV and approximately 21% have an undiagnosed status.
- 75% of 2.7 million people do not know that they are infected with HCV.(CDC,2016)
- E.Ds offer a great opportunity for performing HIV and HCV screening with an opt-out approach.
- The potential benefits of the opt-out approach is to save time and reduce HIV and HCV stigma.
- Gilead Science, Inc launched the On the Frontlines of Communities in the United States (FOCUS) program to address the HIV, HBV and HCV public health problem.
- Gilead and Florida Department of Health through the FOCUS project provides Jackson Memorial Hospital (JMH) and its community, funding and the proper tools to implement the HIV and HCV screening in all patients that come through ED.



Outcome Evaluation:

Since its inception on June 27, 2017 through the end of December 2017, the program has tested and delivered results as follow:

AIM

The purpose of this study was to evaluate some of the processes used by the FOCUS program to screen and refer positive patients to further care and AIDS networks

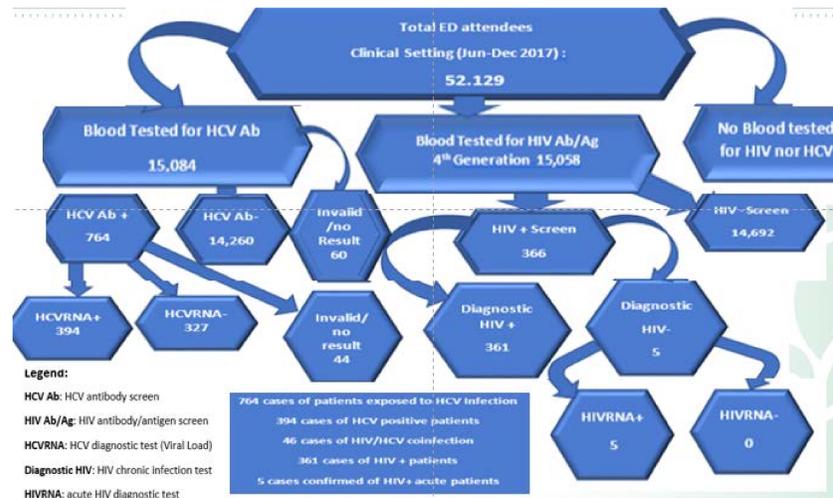
METHODOLOGY

We used a logic model for process and outcome evaluation. We conducted descriptive analysis of secondary data to depict the demographic characteristics of the participants. SPSS Software (V.24) (IBM) was used for all statistical analyses

RESULTS- I) LOGIC MODEL

Process Evaluation:

- The FOCUS program is at its full capacity universally testing anyone that comes through the Emergency Department.
- All activities have been delivered as intended. FOCUS provides HCV and HIV screening, post-test counseling, and linkage and re-linkage to medical care. Without this project, many patients may not have the opportunity to be screened, diagnosed, and linked to medical care.
- FOCUS HIV positive patients linkage rate was 16.7% and HCV positive patient linkage rate was 18.5%. Two main factors have not contributed to a higher linking rate to medical care: unable to locate discharged patient due to wrong contact patient information and the delay on the delivery of HCV confirmatory results.



II) Descriptive Analysis:

From June 27, 2017 thru December 31, 2017, approximately 15,050 adult ED patients accepted to be screened for HIV and HCV using an opt out model. 1084 HIV and/or HCV were found to be positive. The average age of the participants was 52.3 years. More than half of the participants were male, and White non-Hispanics.

The HIV infection rate was higher among Black/African American (67.5%), age 51-60 (29.3%), Non Hispanic (72.4%), and males (63.4%).

The HCV infection rate was higher among White race (43.7%), age group 51-60 (32.4%), and males (72.6), non-Hispanic (70.1%).

Hispanic population was similar HIV+ rate (27.3%) and HCV+ rate (29.7%).

Higher HCV positivity rate 57.7% showed among ED patients born between 1945-1965.

Table 1. Demographic of positive HIV and HCV patients that came to JMH ED. FOCUS data from June 27, 2017-December 31, 2017

	Total Count No(%)	HIV + Count No(%)	HCV +Screen Count No(%)	HCV +Confirmatory Count No(%)
Age group, yr				
18-30	87 (8)	41 (11.2)	46(6)	19(4.8)
31-40	149(13.7)	55 (15.1)	98(12.9)	52(13.3)
41-50	193(17.8)	92 (25.2)	110(14.5)	68(17.3)
51-60	321(29.6)	107(29.3)	233(30.6)	127(32.4)
61-70	265(24.4)	58(15.9)	221(29)	106(27)
>70	65(6.0)	12(3.3)	53(7)	20(5.1)
Unknown age ^a	4(0.3)			
Gender				
Male	707 (65.2)	232 (63.4)	504(66)	286(72.6)
Female	377(34.8)	134(36.6)	260(34)	108(27.4)
Race				
White ^b	575(53)	117(32)	474(43.7)	239(60.7)
Black ^b	533(46.4)	247 (67.5)	286(56.9)	155(39.3)
Asian	1 (0.3)	1(0.3)	0	0
Biracial-other	1(0.3)	1(0.3)	0	0
Don't Know	0	0	1(0.3)	1(0.3)
Ethnicity				
Hispanic	353(32.6)	100(27.3)	262(34.3)	117(29.7)
Non- Hispanic	731(67.4)	265(72.4)	499(65.3)	276(70.1)
Birth Cohort				
Before 1945	N/A	N/A	31(4.1)	14(3.6)
1945-1965	N/A	N/A	449(58.8)	225(57.1)
After 1965	N/A	N/A	284(37.2)	155 (39.3)

Note 1. FOCUS Data (June 27, 2017-December 31, 2017).^a Four patients with unknown date of birth. ^b Hispanics are included

DISCUSSION

Based on the logic model analysis, the Frontlines of Communities in the United States (FOCUS) project demonstrated:

- The efficacy of integrating HIV and HCV universal screening into an emergency department using an opt-out model. The opt-out model and the exclusion of pre-counseling testing have helped minimize exceptionalism regarding HIV and HCV testing.
- Having 16.7% HIV-positive patients and 18.5% for HCV positive linked to treatment must not discredit the efforts of the FOCUS project, since studies confirmed that just knowing patient's HIV-positive or HCV- positive status greatly reduces patient's risk behavior.(Stanley et al, 2017).
- New HIV positive cases of 0.32% were detected, compared to the 2016 Florida incidence rate of 1.2%(CDC, 2016). Excluding Hispanics, HIV positive cases among White race was 9% compared to the 2016 Florida incidence rate 5.2%(CDC, 2016). The percentage of HIV-positive cases among blacks was 63% high compared to the 2016 Florida incidence rate of 43.6%. (CDC, 2016).
- Over a six-month period, five acute HIV diagnoses and 361 HIV positive cases were captured, demonstrating the importance of testing in the emergency department to reduce the onward HIV transmission.
- This study shows HCV positive screen was 5.1% and 2.6% results among ED patients. Three hundred ninety-four HCV chronic patients were diagnosed.
- White patients born between 1946 and 1965 were more likely to have an HCV active infection than those outside this cohort.
- Having 46 cases of HIV and HCV co-infection diagnosed since the beginning of the program showed the importance of offering both tests as a combo.

Limitations

- Potential sampling bias was present because only ED patients who did not opt out were screening, so the findings of this study does not reflect the national HIV and HCV prevalence.

- The sample size was small, and missing data did not allow to fully evaluate the association between variables.
- The uptake rate was impossible to take since ED patients come from different reasons to ED and not all were offered to have blood work up done.

Recommendations.

- * Extend the lab and linkage hours to 24/7.
- In order to decrease the rate of discharge patients without a diagnosis, samples should be treated as priority and if the screening part is positive, the medical technologist should call LTCs and the RN should be notified by a flag in the Electronic Medical Record to hold the patient until completion of the test.
- To shorten the HCV RNA delivery results, testing should be performed in house.
- Since JMH ED patients are known to be concurrent visitors, a flag should be built-into the Electronic Medical Record (EMR) anytime that positive patients are back to the facilities
- LTCs should set an appointment right there for all the patients with HCV Ab positive results, to come in person within 2 weeks for the results regardless the HCV RNA result.
- Consider building in a census that can provide a count of opt in/out testing, so uptake test rate or refusal rate can be calculated for process improvement and test acceptance.

CONCLUSIONS

The logic model highlighted the critical role EDs may have in detecting patients with undiagnosed HIV and HCV virus infections.

- Jackson Memorial Hospital thru the Frontier of Communities United States (FOCUS) team have indeed integrated HIV and HCV universal screening into routine testing among ED patients using the opt-out model.
- The opt-out model and decoupling counseling from HIV and HCV testing have streamlined the screening process and has helped to reduce stigma and exceptionalism.
- Bundling HIV and HCV rapid testing helped greatly to increase HCV screening rate which have been neglected for decades.
- We hope the results of this study will highlight the importance of developing and promoting policies for ED-based HIV and HCV testing.

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