Supplemental Table S1A:

Values Used for Fig 1A (Pima County Crisis Episodes Sankey Chart)

Values used for Figure 1A		
CRC	**Flow**	**Count**
Yes	MC->CF	1072
Yes	MC->ED	84
Yes	MC->IP	776
Yes	CF Only	4510
Yes	CF->ED	373
Yes	CF->IP	2724
Yes	ED->IP	50
Yes	IP Only	70
No	MC Only	4187
No	MC->CF	400
No	MC->ED	284
No	MC->IP	951
No	CF Only	6111
No	CF->ED	367
No	CF->IP	1708
No	ED->IP	2541
No	ED Only	6983
No	IP Only	7835
Total		**41026**

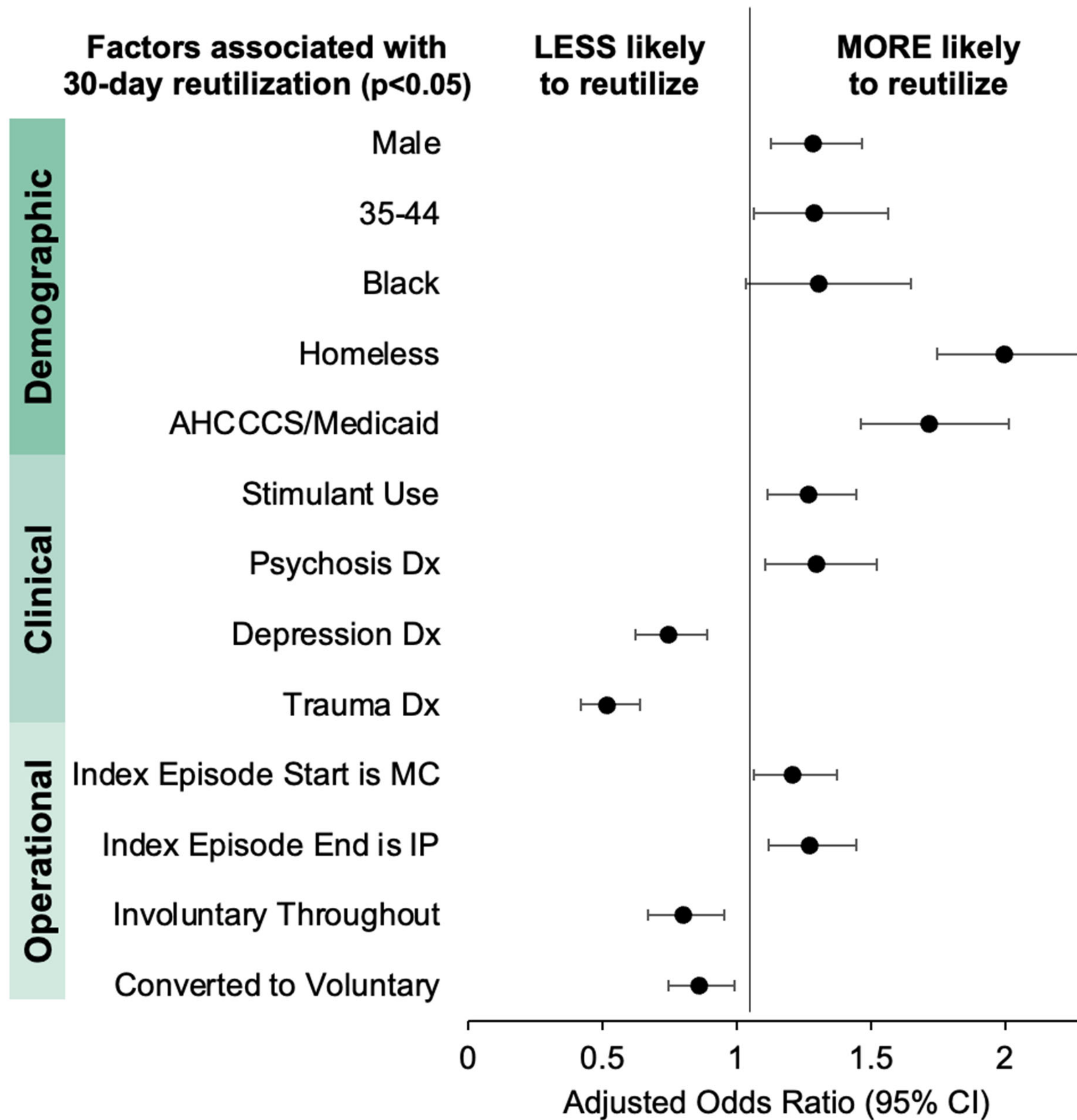
The values in this Table include all episodes in Pima county during the study period. The first column indicates whether the episode was a CRC episode or not, while the second column indicates the flow of the episode. For the purposes of creating the all-Pima Sankey (Figure 1A), cis-type flows were added regardless of facility. For example, there were a total of 1472 (1072 + 400) episodes that started with mobile crisis and ended with crisis facility in Pima County. Facility data is provided in this table for more information.

Supplemental Table 1B: Values Used for Figure 1B (Reutilization Sankey Chart)

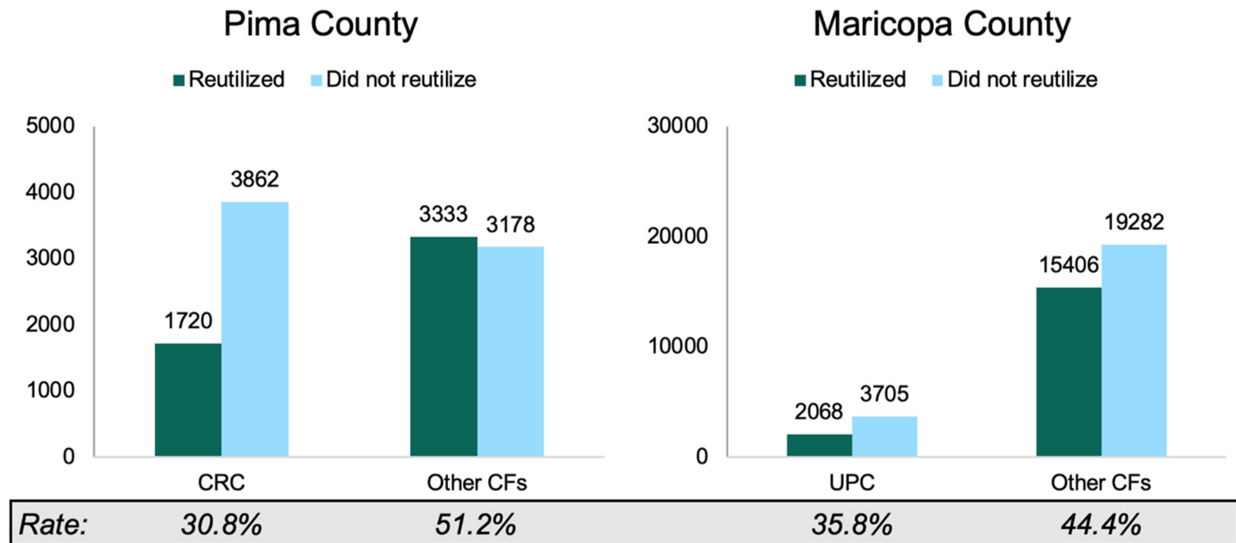
Values used for Figure 1B			
Index Episode Start Point	**Index Episode End Point**	**Reutilization Start**	**Count**
MC	CF	NONE	690
MC	CF	MC	151
MC	CF	CF	156
MC	CF	ED	33
MC	CF	IP	42
MC	IP	NONE	406
MC	IP	MC	123
MC	IP	CF	149
MC	IP	ED	50
MC	IP	IP	48
CF	CF	NONE	3172
CF	CF	MC	265
CF	CF	CF	748
CF	CF	ED	161
CF	CF	IP	164
CF	IP	NONE	1490
CF	IP	MC	186
CF	IP	CF	648
CF	IP	ED	212
CF	IP	IP	188
ED	IP	NONE	27
ED	IP	MC	1
ED	IP	CF	16
ED	IP	ED	3
ED	IP	IP	3
IP	IP	NONE	40
IP	IP	MC	5
IP	IP	CF	18
IP	IP	ED	3
IP	IP	IP	4
Total			**9202**

The values in this Table include the subset of episodes that included an encounter at the Crisis Response Center. The first and second columns show the start and end points of the index episode, and the third column shows the start point of the reutilization episode ("none" indicates there was no reutilization). For example, 690 episodes began with mobile crisis and ended with crisis facility and did not reutilize within 30 days.

Supplemental Figure S1. Adjusted odds ratio estimates and 95% confidence intervals for select factors (*p* < 0.05) associated with 30-day reutilization (n=9,202).

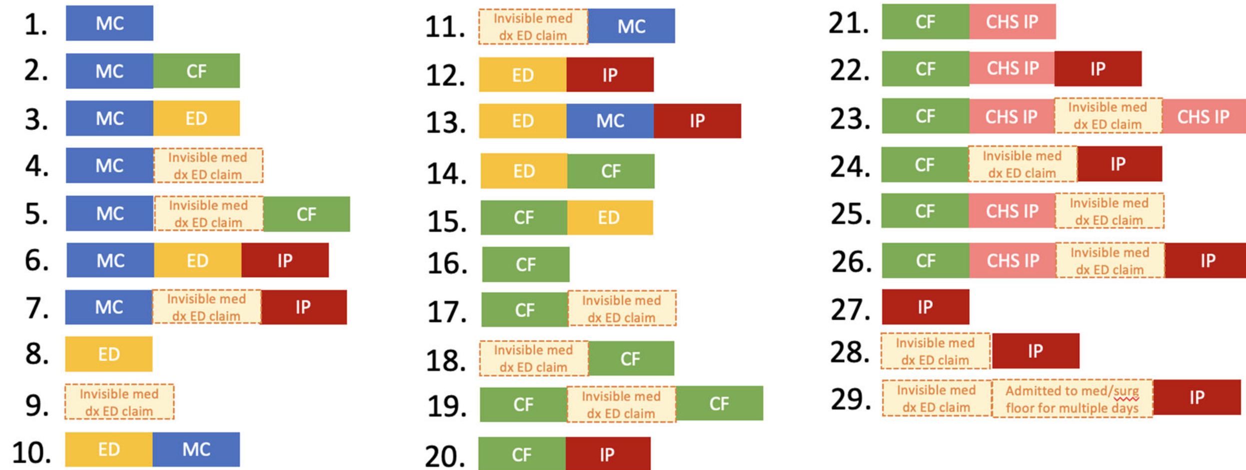


Supplemental Figure S2: 30-Day Reutilization following discharge from a crisis facility.



Our reutilization analysis included only individuals who received care at the Crisis Response Center. To investigate possible differences between populations discharged from other crisis facilities in Arizona, we conducted a preliminary analysis comparing the CRC to the other crisis facility in Pima County and found lower 30-day utilization among those discharged from the CRC. We observed similar results comparing the CRC's sister facility (also operated by Connections Health Solutions) in Maricopa County to other facilities in that county. More research is needed to understand comparisons between crisis facilities. *Data Source: Arizona Health Care Cost Containment System (AHCCCS). The Center for Health Information & Research at Arizona State University performed the analysis of AHCCCS data. Reutilization is defined as any of the following: mobile crisis, crisis facility, behavioral health-related emergency department visit, or inpatient psychiatric facility.*

Supplemental Figure S3: Patient Flow Scenarios



1. MC team sees the patient in the field and resolves the crisis
2. MC team sees the patient in the field and transports patient to a Crisis Facility
3. MC team sees patient in the field and transports patient to the ED
4. MC team sees patient in the field and transports to the ED, but the ED claim is for a medical diagnosis (e.g. it was a suicide attempt and the dx is laceration or ingestion instead of a BH diagnosis). The ED visit is "invisible." Episode appears as MC only.
5. MC team sees patient in the field and transports to the ED, but ED claim is for medical diagnosis and the ED visit is "invisible", patient then transferred to Crisis Facility. Appears as MC to CF.
6. MC team sees patient in the field and transports to the ED and patient is subsequently admitted to IP
7. MC team sees patient in the field and transports to the ED, but ED claim is for medical diagnosis and the ED visit is "invisible", patient is subsequently admitted to IP. Appears as MC to IP.
8. Patient goes to or is taken to ED and claim is for behavioral health diagnosis.
9. Patient goes to or is taken to ED and claim is for medical diagnosis, "invisible"
10. MC team sees patient already in ED (Happens in some rural areas and for voluntary patients in Maricopa EDs)
11. MC team sees patient already in ED, but ED claim is for medical diagnosis and the ED visit is "invisible". (Happens in some rural areas and for voluntary patients in Maricopa EDs)
12. Patient goes from ED to IP
13. Patient starts in the ED, MC sees them in the ED, and recommend they get admitted to IP
14. Patient goes straight to ED then transferred to Crisis Facility
15. Patient goes to a crisis facility then transferred to the ED. Note: For scenarios 14 and 15, if the ED and CF claim are on the same calendar day, it is impossible to distinguish between the 2 scenarios. In these cases, they were coded as scenario 15.
16. Patient goes straight to a crisis facility
17. Patient goes straight to a crisis facility then transferred to an ED, but the claim is for medical diagnosis and the ED visit is "invisible"
18. Patient goes straight to ED, but ED claim is for medical diagnosis and the ED visit is "invisible", patient then transferred to Crisis Facility
19. Patient goes straight to a crisis facility then transferred to an ED, but the claim is for medical diagnosis and the ED visit is "invisible", then transferred back to the CF. Appears as CF only.
20. Patient goes straight to a crisis facility then transferred to IP
21. Patient goes straight to a crisis facility then transferred to Connections' IP

22. Patient goes straight to a crisis facility then transferred to Connections' IP, subsequently transferred to non-Connections' IP
23. Patient goes straight to a crisis facility then transferred to a Connections' IP. While in CHS IP, patient needs a medical evaluation and is transferred to the ED for a medical diagnosis which is "invisible" and transferred back to CHS IP.
24. Patient goes straight to a crisis facility then transferred to the ED for a medical evaluation which is "invisible". Patient is subsequently admitted to IP.
25. Patient goes straight to a crisis facility then transferred to a Connections' IP. While in CHS IP, patient needs a medical evaluation and is transferred to the ED for a medical diagnosis which is "invisible" and then discharged. Appears as CF to IP
26. Patient goes straight to a crisis facility then transferred to a Connections' IP. While in CHS IP, patient needs a medical evaluation and is transferred to the ED for a medical diagnosis which is "invisible" and then readmitted to IP. Appears as CF to IP
27. Patient is admitted straight to IP and discharged from IP.
28. Patient arrives in ED and claim is for medical diagnosis, "invisible" ED visit. Patient is then transferred to IP. Appears as IP only.
29. Patient goes to ED, but ED claim is for medical diagnosis and the ED visit is "invisible". Patient subsequently admitted to Med/Surg floor for medical/surgical reason. While admitted main problem becomes BH and is admitted to IP. Appears as IP only.

Supplemental Fig S4: Auto Regressive 1 (AR1) working correlation matrix for the GEE model

	Col1	Col2	Col3	Col4	Col5	Col6	Col7	Col8	Col9	Col10	Col11	Col12	Col13	Col14	Col15	Col16	Col17	Col18	Col19	Col20	Col21	Col22	Col23	Col24	Col25	Col26	Col27	Col28	Col29	Col30
Row1	1.000	0.506	0.256	0.129	0.065	0.033	0.017	0.008	0.004	0.002	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Row2	0.506	1.000	0.506	0.256	0.129	0.065	0.033	0.017	0.008	0.004	0.002	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Row3	0.256	0.506	1.000	0.506	0.256	0.129	0.065	0.033	0.017	0.008	0.004	0.002	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Row4	0.129	0.256	0.506	1.000	0.506	0.256	0.129	0.065	0.033	0.017	0.008	0.004	0.002	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Row5	0.065	0.129	0.256	0.506	1.000	0.506	0.256	0.129	0.065	0.033	0.017	0.008	0.004	0.002	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Row6	0.033	0.065	0.129	0.256	0.506	1.000	0.506	0.256	0.129	0.065	0.033	0.017	0.008	0.004	0.002	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Row7	0.017	0.033	0.065	0.129	0.256	0.506	1.000	0.506	0.256	0.129	0.065	0.033	0.017	0.008	0.004	0.002	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Row8	0.008	0.017	0.033	0.065	0.129	0.256	0.506	1.000	0.506	0.256	0.129	0.065	0.033	0.017	0.008	0.004	0.002	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Row9	0.004	0.008	0.017	0.033	0.065	0.129	0.256	0.506	1.000	0.506	0.256	0.129	0.065	0.033	0.017	0.008	0.004	0.002	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Row10	0.002	0.004	0.008	0.017	0.033	0.065	0.129	0.256	0.506	1.000	0.506	0.256	0.129	0.065	0.033	0.017	0.008	0.004	0.002	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Row11	0.001	0.002	0.004	0.008	0.017	0.033	0.065	0.129	0.256	0.506	1.000	0.506	0.256	0.129	0.065	0.033	0.017	0.008	0.004	0.002	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Row12	0.001	0.001	0.002	0.004	0.008	0.017	0.033	0.065	0.129	0.256	0.506	1.000	0.506	0.256	0.129	0.065	0.033	0.017	0.008	0.004	0.002	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Row13	0.000	0.001	0.001	0.002	0.004	0.008	0.017	0.033	0.065	0.129	0.256	0.506	1.000	0.506	0.256	0.129	0.065	0.033	0.017	0.008	0.004	0.002	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000
Row14	0.000	0.000	0.001	0.001	0.002	0.004	0.008	0.017	0.033	0.065	0.129	0.256	0.506	1.000	0.506	0.256	0.129	0.065	0.033	0.017	0.008	0.004	0.002	0.001	0.001	0.000	0.000	0.000	0.000	0.000
Row15	0.000	0.000	0.000	0.001	0.001	0.002	0.004	0.008	0.017	0.033	0.065	0.129	0.256	0.506	1.000	0.506	0.256	0.129	0.065	0.033	0.017	0.008	0.004	0.002	0.001	0.001	0.000	0.000	0.000	0.000
Row16	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.004	0.008	0.017	0.033	0.065	0.129	0.256	0.506	1.000	0.506	0.256	0.129	0.065	0.033	0.017	0.008	0.004	0.002	0.001	0.001	0.000	0.000	0.000
Row17	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.004	0.008	0.017	0.033	0.065	0.129	0.256	0.506	1.000	0.506	0.256	0.129	0.065	0.033	0.017	0.008	0.004	0.002	0.001	0.001	0.000	0.000
Row18	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.004	0.008	0.017	0.033	0.065	0.129	0.256	0.506	1.000	0.506	0.256	0.129	0.065	0.033	0.017	0.008	0.004	0.002	0.001	0.001	0.000
Row19	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.004	0.008	0.017	0.033	0.065	0.129	0.256	0.506	1.000	0.506	0.256	0.129	0.065	0.033	0.017	0.008	0.004	0.002	0.001	0.001
Row20	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.004	0.008	0.017	0.033	0.065	0.129	0.256	0.506	1.000	0.506	0.256	0.129	0.065	0.033	0.017	0.008	0.004	0.002	0.001
Row21	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.004	0.008	0.017	0.033	0.065	0.129	0.256	0.506	1.000	0.506	0.256	0.129	0.065	0.033	0.017	0.008	0.004	0.002
Row22	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.004	0.008	0.017	0.033	0.065	0.129	0.256	0.506	1.000	0.506	0.256	0.129	0.065	0.033	0.017	0.008	0.004
Row23	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.004	0.008	0.017	0.033	0.065	0.129	0.256	0.506	1.000	0.506	0.256	0.129	0.065	0.033	0.017	0.008
Row24	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.004	0.008	0.017	0.033	0.065	0.129	0.256	0.506	1.000	0.506	0.256	0.129	0.065	0.033	0.017
Row25	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.004	0.008	0.017	0.033	0.065	0.129	0.256	0.506	1.000	0.506	0.256	0.129	0.065	0.033
Row26	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.004	0.008	0.017	0.033	0.065	0.129	0.256	0.506	1.000	0.506	0.256	0.129	0.065
Row27	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.004	0.008	0.017	0.033	0.065	0.129	0.256	0.506	1.000	0.506	0.256	0.129
Row28	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.004	0.008	0.017	0.033	0.065	0.129	0.256	0.506	1.000	0.506	0.256
Row29	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.004	0.008	0.017	0.033	0.065	0.129	0.256	0.506	1.000	0.506
Row30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.004	0.008	0.017	0.033	0.065	0.129	0.256	0.506	1.000