# Supplemental Table 1. Logistic regression models showing sociodemographic predictors of seeking

### care from traditional healers among HIV-infected subjects initiating ART in Senegal, 2017-2018

|                                                                         | Simple regressions |      |       |         | Multiple regression <sup>a</sup> |      |       |         |
|-------------------------------------------------------------------------|--------------------|------|-------|---------|----------------------------------|------|-------|---------|
|                                                                         | OR                 | 95%  | % CI  | p-value | OR                               | 95%  | % CI  | p-value |
| Female                                                                  | 0.73               | 0.36 | 1.49  | 0.39    | -                                | -    | -     | -       |
| <b>Age</b> (ref. <35)                                                   |                    |      |       |         |                                  |      |       |         |
| 35-54                                                                   | 2.64               | 1.24 | 5.66  | 0.01    | 2.87                             | 1.28 | 6.43  | 0.01    |
| 55+                                                                     | 5.89               | 1.45 | 24.00 | 0.01    | 4.45                             | 1.05 | 18.84 | 0.04    |
| Ziguinchor study site, located in the Casamance (ref. Dakar study site) | 2.36               | 1.19 | 4.69  | 0.01    | 2.33                             | 1.08 | 4.99  | 0.03    |
| Born in Senegal                                                         | 0.57               | 0.23 | 1.43  | 0.23    | -                                | -    | -     | -       |
| Marital status <sup>b</sup> (ref. monogamous)                           |                    |      |       |         |                                  |      |       |         |
| Single                                                                  | 2.02               | 0.66 | 6.18  | 0.22    | -                                | -    | -     | -       |
| Polygamous                                                              | 1.88               | 0.65 | 5.42  | 0.25    | -                                | -    | -     | -       |
| Divorced                                                                | 4.69               | 1.74 | 12.63 | <0.01   | -                                | -    | -     | -       |
| Widowed                                                                 | 2.00               | 0.69 | 5.82  | 0.20    | -                                | -    | -     | -       |
| Number of children <sup>b</sup> (ref. 1-3 children)                     |                    |      |       |         |                                  |      |       |         |
| 0                                                                       | 0.48               | 0.16 | 1.42  | 0.18    | -                                | -    | -     | -       |
| 4-6                                                                     | 0.92               | 0.42 | 2.05  | 0.84    | -                                | -    | -     | -       |
| 7+                                                                      | 0.25               | 0.03 | 2.10  | 0.20    | -                                | -    | -     | -       |
| Unemployed <sup>c</sup>                                                 | 0.74               | 0.29 | 1.86  | 0.52    | -                                | -    | -     | -       |
| Educational level <sup>b</sup> (ref. no formal education)               |                    |      |       |         |                                  |      |       |         |
| Any primary school                                                      | 0.70               | 0.30 | 1.63  | 0.41    | -                                | -    | -     | -       |
| Any secondary school                                                    | 0.65               | 0.24 | 1.74  | 0.39    | -                                | -    | -     | -       |
| Any university                                                          | 0.22               | 0.02 | 1.97  | 0.17    | -                                | -    | -     | -       |
| Severely food insecure                                                  | 2.19               | 1.06 | 4.54  | 0.04    | 1.43                             | 0.65 | 3.17  | 0.38    |

<sup>a</sup>N=142. <sup>b</sup>Among subjects ≥15 years of age. <sup>c</sup>Among subjects ≥18 years of age.

Supplemental Table 2. Multiple logistic regression models showing associations between HIV outcomes and seeking care from traditional healers among HIV-1 infected subjects initiating ART in Senegal, 2017-2018

| Multiple regressions <sup>a</sup> |      |      |        |       |  |  |  |  |
|-----------------------------------|------|------|--------|-------|--|--|--|--|
|                                   | OR   | 95   | 95% CI |       |  |  |  |  |
| A. WHO defined advanced disease   | 3.58 | 1.18 | 10.82  | 0.02  |  |  |  |  |
| B. Malnourished at enrollment     | 3.79 | 1.63 | 8.83   | <0.01 |  |  |  |  |
| C. Died during follow-up          | 7.26 | 1.34 | 39.37  | 0.02  |  |  |  |  |

<sup>a</sup>Three separate regression models, each controlling for the variables age and study site as defined in Supplemental Table 1. Model A: N=126, Model B: N=132, Model C: N=133.

#### Supplemental Table 3. Multiple logistic regression model showing predictors of mortality among HIV-1

## infected subjects initiating ART in Senegal, 2017-2018

|                                       | Multiple regression <sup>a</sup> |        |       |         |  |
|---------------------------------------|----------------------------------|--------|-------|---------|--|
|                                       | OR                               | 95% CI |       | p-value |  |
| Age ≥35                               | 1.77                             | 0.31   | 10.29 | 0.52    |  |
| Male                                  | 5.88                             | 1.02   | 33.81 | 0.05*   |  |
| WHO defined advanced disease          | 1.95                             | 0.18   | 20.65 | 0.58    |  |
| Sought care from a Traditional Healer | 6.86                             | 1.17   | 40.16 | 0.03    |  |

<sup>a</sup>N=126. \*p-value=0.047.

Supplemental methods

#### **1** Supplemental Methods

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This study was conducted at the Services des Maladies Infectieuses et Tropicales (SMIT) - Centre Hospitalier 3 National Universitaire de Fann located in Dakar and the Centre de Santé de Ziguinchor, located in the 4 Casamance Region. Subjects were sequentially enrolled from April 20, 2017 to April 16, 2018. Follow-up data 5 were extracted through May 1, 2018. All HIV-positive individuals initiating antiretroviral therapy (ART) through 6 the Senegalese National AIDS program (ISAARV) who provided written informed consent were eligible for 7 enrollment. Time since HIV diagnosis was neither an inclusion nor an exclusion criterion. Consistent with WHO 8 guidelines, all HIV-positive individuals were eligible for ART (1). For subjects <18 years of age, consent was 9 10 obtained from their legal guardian. Study procedures were approved by the University of Washington 11 Institutional Review Board and the Senegal Comité National d'Ethique pour la Recherche en Santé.

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Participants completed interviewer administered questionnaires and participated in structured interviews 13 administered by social workers to determine sociodemographic characteristics and health seeking behaviors. 14 Subjects were specifically asked if they had ever sought care from a TH, as defined by UNAIDS (2). Food 15 insecurity was determined using the Household Food Insecurity Access Scale (HFIAS) (3). A clinical evaluation 16 was performed to determine WHO clinical stage (4), body mass index (BMI), and mid-upper arm circumference. 17 Malnourished was defined according to WHO criteria as a BMI <18.5 kg/m<sup>2</sup> for non-pregnant subjects ≥18 18 years of age or BMI for age < -2 z-scores below the median of the WHO Child Growth Standard for subjects 19 <18 years of age (5). For pregnant women, malnourished was defined as mid-upper arm circumference 20 <230mm (6). Laboratory testing was conducted to determine HIV type and to measure CD4 cell count and 21 22 hemoglobin (Hb) levels. Advanced HIV disease was defined as WHO stage 3 or 4, or CD4 count <200 cells/mm<sup>3</sup> according to WHO criteria (7). Anemia was defined as Hb <12.0 and severe anemia was defined as 23 Hb <8.0 (8). ART delay was defined as the number of days between the date of HIV confirmation and the date 24 of ART initiation. Subjects continued to participate in clinical follow-up and to receive ART throughout the study 25 period. Medical records were reviewed to capture interval events. Individuals who missed clinical follow-up 26 were contacted by the social worker. Medical records and family report were used to ascertain mortality. When 27 the month of death was recorded without the day of death, then the date of death entered for analysis was 28

- <sup>29</sup> imputed as the 15<sup>th</sup> of the recorded month. Individuals that could not be reached by the social worker and for
- 30 whom status could not be confirmed by family or medical records were considered alive and lost-to follow-up.
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- Data were analyzed using SPSS Statistics 23 (IBM, Armonk, N.Y.). Descriptive analysis was performed for all 32 variables. Chi-square and Fisher's Exact tests were used to identify differences in baseline characteristics 33 between individuals who sought care from TH compared to those who did not seek care from TH. The Mann-34 Whitney U test was used to identify differences in medians between groups. Logistic regression was used to 35 36 identify sociodemographic predictors of seeking care from TH and associations between HIV-outcomes and use of TH. Kaplan-Meier survival analysis was used to compare survival curves among those who sought care 37 from TH to those who did not seek care from TH. Individuals who were alive at last follow-up were censored. 38 Missing data were excluded from analysis. P-values <0.05 were considered significant. 39
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