Home Gardens Contribute Significantly to Dietary Diversity in HIV/AIDS Afflicted Households in Rural Ghana

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KEYWORDS Dietary. Diversity Score. Shannon-Wiener Index. Plant Species Diversity

ABSTRACT The study assessed the biodiversity in home gardens and evaluated its contribution to dietary diversity among HIV-positive and HIV-negative rural households in Eastern Region, Ghana. A cross-sectional survey of 32 HIV-positive and 48 HIV-negative households was conducted. Plant species cultivated in the home garden of each household and their abundance were documented. Shannon-Wiener index was estimated for each home garden. A dietary diversity score (DDS = a count of food groups consumed) was determined with DDS(+HG) and without DDS(−HG) home garden products for each household using a 24-hour qualitative dietary recall. HIV-positive and HIV-negative households were compared using Student’s t-tests and Fisher’s exact tests. HIV-positive households showed a significantly higher DDS(+HG) than HIV-negative households (6.8 vs. 6.0). The DDS(−HG) did not differ between groups but there was a significant difference between DDS(+HG) and DDS(−HG) within groups. A higher DDS in HIV-positive households was not associated with a higher Shannon-Wiener index. The contribution of food items from home gardens to DDS was significantly higher in HIV-positive (14.9%) than in HIV-negative households (9.1%). Home gardens contribute significantly to dietary diversity in HIV-positive rural households, although no significant change in plant species diversity was observed compared to HIV-negative households.