

## **Appendix I: The tool used to assess IPV in Ethiopian Demographic and Health Survey**

**2016**

Women were asked whether or not they had experienced the following acts within their relationship, perpetrated by their husband/partner for currently married women and recent husband/partner for previously married women (CSA, 2017):

1. Push you, shake you, or throw something at you?
2. Slap you?
3. Twist your arm or pull your hair?
4. Punch you with his/her fist or with something that could hurt you?
5. Kick you, drag you, or beat you up?
6. Try to choke you or burn you on purpose?
7. Threaten or attack you with a knife, gun, or any other weapon?
8. Physically force you to have sexual intercourse with him even when you did not want to?
9. Physically force you to perform any other sexual acts you did not want to?
10. Force you with threats or in any other way to perform sexual acts you did not want to?
11. Say or do something to humiliate you in front of others?
12. Threaten to hurt or harm you or someone close to you?
13. Insult you or make you feel bad about yourself?

Questions 1-4 measure less severe physical spousal violence, 5-7 severe physical spousal abuse, 8-10 sexual IPV and 11-13 emotional IPV.

**Appendix II: List of *control* variables, their categories and definitions**

<b>Group</b>	<b>Variable</b>	<b>Category/Measurement/ definition</b>
<b>Maternal characteristics</b>	Age at birth (years)	The age of the woman during the time she gave birth to the index neonate as a continuous variable
	Educational status	Maximum educational level categorized as uneducated, primary and secondary+
	Employment status	employed/not employed based on their response to “have you been employed in the last 12 months”
	Place of residence	Rural, urban
	Region	Region of residence in 11 regions
	Number of living children	Number of living children women ever had: grouped as one or less, 2-3, 4-5 and 6 or more
	Number of previous adverse events	Number of adverse events experienced which is defined as either pregnancy loss (abortion, stillbirth) or child mortality; count data generated
	Substance abuse	Classified ‘yes’ if respondent reported drinking any alcohol, khat chewing or smoking and ‘no’ otherwise. ‘Khat’ is a green leafy vegetable consumed as a stimulant.
<b>Paternal characteristics</b>	Decision making autonomy	Coded as ‘yes’ if she reported being involved in all decisions regarding her own health care, major household purchases and visits to her family or relatives (CSA, 2017).
	Partner education	Maximum educational level of the partner categorized as uneducated, primary and secondary+
<b>Household characteristics</b>	Partner occupation	Partner’s occupational status classified as not working, professional/business, agriculture, manual/services, others
	Access to media	If respondent reportedly read a newspaper, listened to the radio, or watched television; categorized as No, less than once a week, at least once a week

	Household wealth index	Measured based on the number and kind of goods households have and housing characteristics (drinking water, toilet facility, flooring material and availability of electricity), and was generated using principal component analysis and classified into quintiles from 1 (very poor) to 5 (very rich) (CSA, 2017).
<b>Maternal health care Variables</b>	Antenatal care	Women's antenatal care utilization categorized as no visit, at least one visit, $\geq$ four visits
	Delivery care	Delivery assisted by physician, nurse, midwife, health officer, and health extension worker; categorized as Yes/No
	Postnatal care	Women received check-up at least once within 48 hours after delivery by a skilled provider; categorized as Yes/No
	Tetanus toxoid immunization	Women received at least two doses of the immunization during pregnancy; categorized as 'Yes/No'
<b>Neonatal related characteristics</b>	Sex	Male/ female
	Desiredness of the pregnancy	'Yes' or 'no' based on women's self-report that "the child they deliver was not wanted or wanted after 2 years of the time when they were pregnant"
	Multiple pregnancy	Singleton or $\geq$ twin
	Birth order	Based on WHO criteria of $\leq$ three (low birth order) / $>$ three (too many children)
	Birth interval	Birth interval from the preceding birth categorized as $< 2$ years or $\geq 2$ years
	Birth weight	Based on mother's report that the birth weight was in one of the following categories (below average, average, above average)
	Mode of delivery	Whether the delivery was assisted by caesarean delivery and classified as 'Yes/No'