## Mental Health Services





## Electronic diagnosing in bipolar disorder

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## **Objective smartphone data**

- number of outgoing and incoming calls /day
- outgoing and incoming text messages/day
- duration of phone calls (minutes/ day)
- number of times the smartphones' screen is turned "on/off"/ day
- duration the smartphone screen was "on"/day





## Classification of bipolar disorder versus healthy controls based on automatically generated objective smartphone data

	Sensitivity <sup>1</sup>	Specificity <sup>2</sup>	PPV <sup>3</sup>	NPV <sup>4</sup>
BD vs. HC	0.92	0.39	0.88	0.52

<sup>&</sup>lt;sup>1</sup> Sensitivity= true positive/ positive

<sup>&</sup>lt;sup>2</sup> Specificity= true negative/ negative

<sup>&</sup>lt;sup>3</sup> Positive predictive value

<sup>&</sup>lt;sup>4</sup> Negative predictive value