



# ACT24: Physical Activities Completed over Time in 24 Hours

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# ACT-24 Version 2.0

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- A self-administered 24 hour recall optimized to collect data about physical activity and sedentary time
- Re-designed for use with **Smart Phones** as well as computer data entry
- Freely available Researcher and Participant sites along with remote storage
- Updated Linkage with the Adult Compendium of MET scores
- Validation, Description and National Results now published
- Enabled to work with RedCap scheduling software
- Addresses key cognitive challenges of standardized survey questions concerning physical activity and sedentary time

# ACT24 Components

## Recall Data (scored)

Automated scoring

## Research Team



Review and Analyze

Register study

## Researcher Site

ACT24

Retrieve participant access keys

## Tracking completion

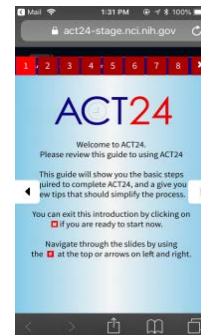
- Manually
- Automated (API)

Complete recall (Y/N)

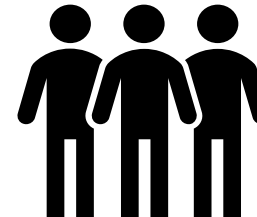
## Decision for make-up

- > Recall+QC = done
- > No recall = re-invite
- > Recall+no QC = re-invite

## Participant Site



## Participants



Invitation (access key)

## Invitation & recall tracking database



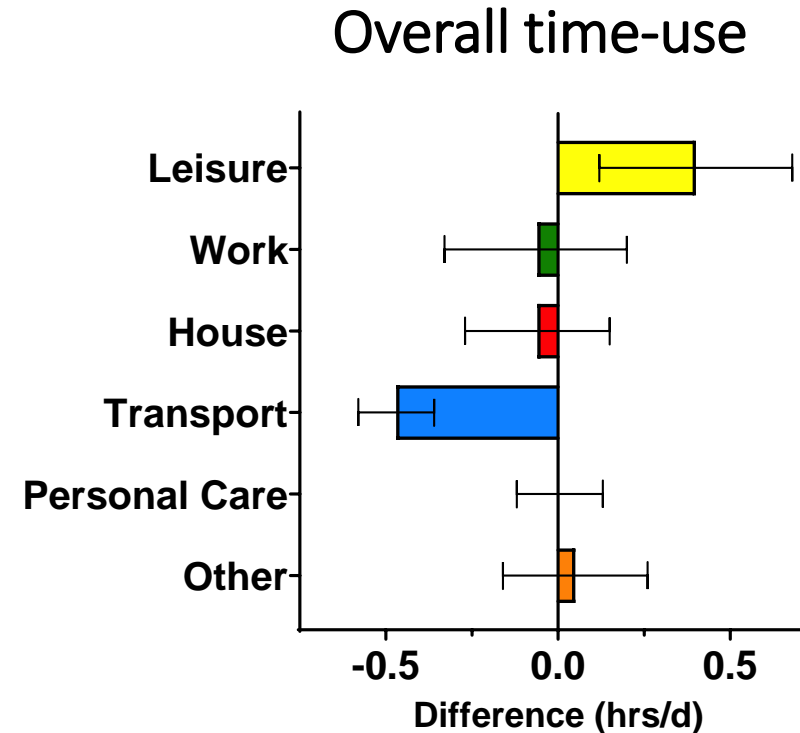
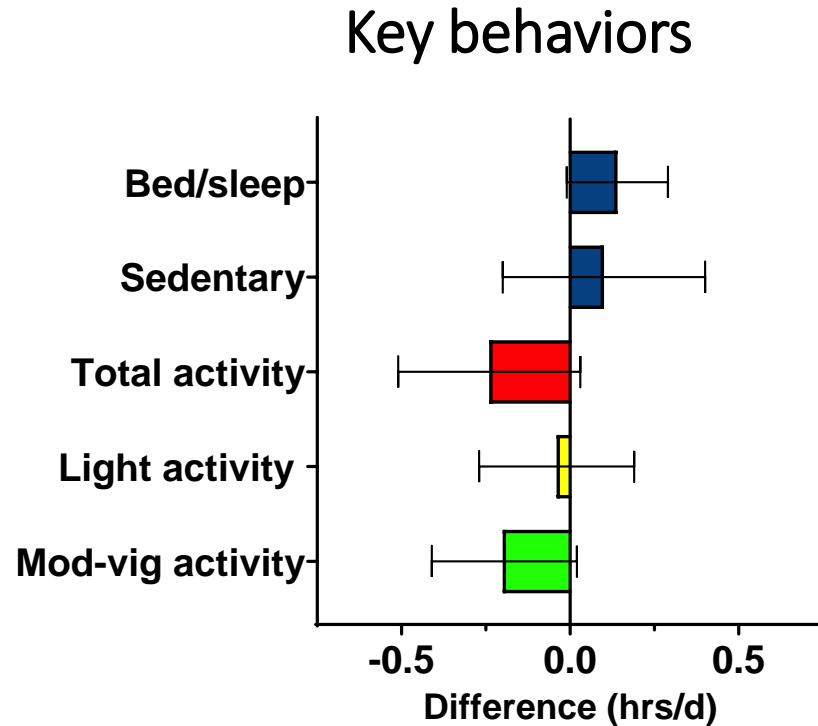
# ACT24 in the NORC AmeriSpeak panel

- **Study Design:** Panel study with participants 20-75yrs
- **Fall 2019:** October-November 2019 (n=2,640)
- **Fall 2020:** November 2020 (n=1,635 with repeated ACT24)
- **Measures:** ACT24 and 20-min online survey (eg, demographics, general health, use of fitness trackers)

With sampling weights to adjust for non-response/exclusions and match key demographics of the current US population.



# 2019 to 2020 Mean Differences



- **Behaviors:** No significant changes in overall population (more results to come for population subgroups)
- **Time-use:** Less transport and more leisure time (0.4 hrs/d or ~25 min/d)

# Access and Results

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- **Try it out:** <https://dceg.cancer.gov/research/how-we-study/exposure-assessment/physical-activities-completed-over-time-24-hours-act-24>
- [Amount, Type, and Timing of Domain-Specific Moderate to Vigorous Physical Activity Among US Adults.](#) Saint-Maurice PF, Berrigan D, Whitfield GP, Watson KB, Patel S, Loftfield E, Sampson JN, Fulton JE, Matthews CE. *J Phys Act Health*. 2021 Aug 1;18(S1):S114-S122. doi: 10.1123/jpah.2021-0174. PMID: 34465649
- [Sedentary Behavior in United States Adults: Fall 2019.](#) Matthews CE, Carlson SA, Saint-Maurice PF, Patel S, Salerno E, Loftfield E, Troiano RP, Fulton JE, Sampson JN, Tribby C, Keadle S, Berrigan D. *Med Sci Sports Exerc*. 2021 Jul 23. doi: 10.1249/MSS.0000000000002751 .PMID: 34310489
- [Use of previous-day recalls of physical activity and sedentary behavior in epidemiologic studies: results from four instruments.](#) Matthews CE, Berrigan D, Fischer B, Gomersall SR, Hillreiner A, Kim Y, Leitzmann MF, Saint-Maurice P, Olds TS, Welk GJ. *BMC Public Health*. 2019 Jun 3;19(Suppl 2):478. doi: 10.1186/s12889-019-6763-8.PMID: 31159761

A large, stylized blue arrow graphic pointing to the right, composed of two overlapping shapes. The front shape is a solid blue arrow, and the back shape is a slightly larger, semi-transparent blue arrow behind it.

**Questions?**