



# Sharing the Resident Wellness Scale for Multi-Institutional Study and Promotion of Resident Wellness

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## Introduction & Background

The ACGME requires all GME programs to track and promote resident wellness

Much attention is paid to burnout and depression

More attention should be paid to wellness

Wayne State and Loma Linda Universities' GME offices collaborated to create the Resident Wellness Scale (RWS)

- A 10-item frequency-scale instrument
- Positively-worded to measure resident wellness
- Designed to address aspects of wellness relevant to residency training
- Correlates meaningfully with validated scales:
  - Positively correlated with Life Orientation ( $r = .46$ )
  - Positively correlated with Satisfaction with Life ( $r = .55$ )
  - Negatively correlated with Depression ( $r = -.58$ )
  - Negatively correlated with Emotional Exhaustion ( $r = -.59$ )

We sought to make the RWS available to institutions for free but to create a centralized data collection tool to allow for multi-site analysis of responses.

## Methods

Password-protected GME server space at Wayne State University (WSU) was acquired

The RWS was coded in html and php

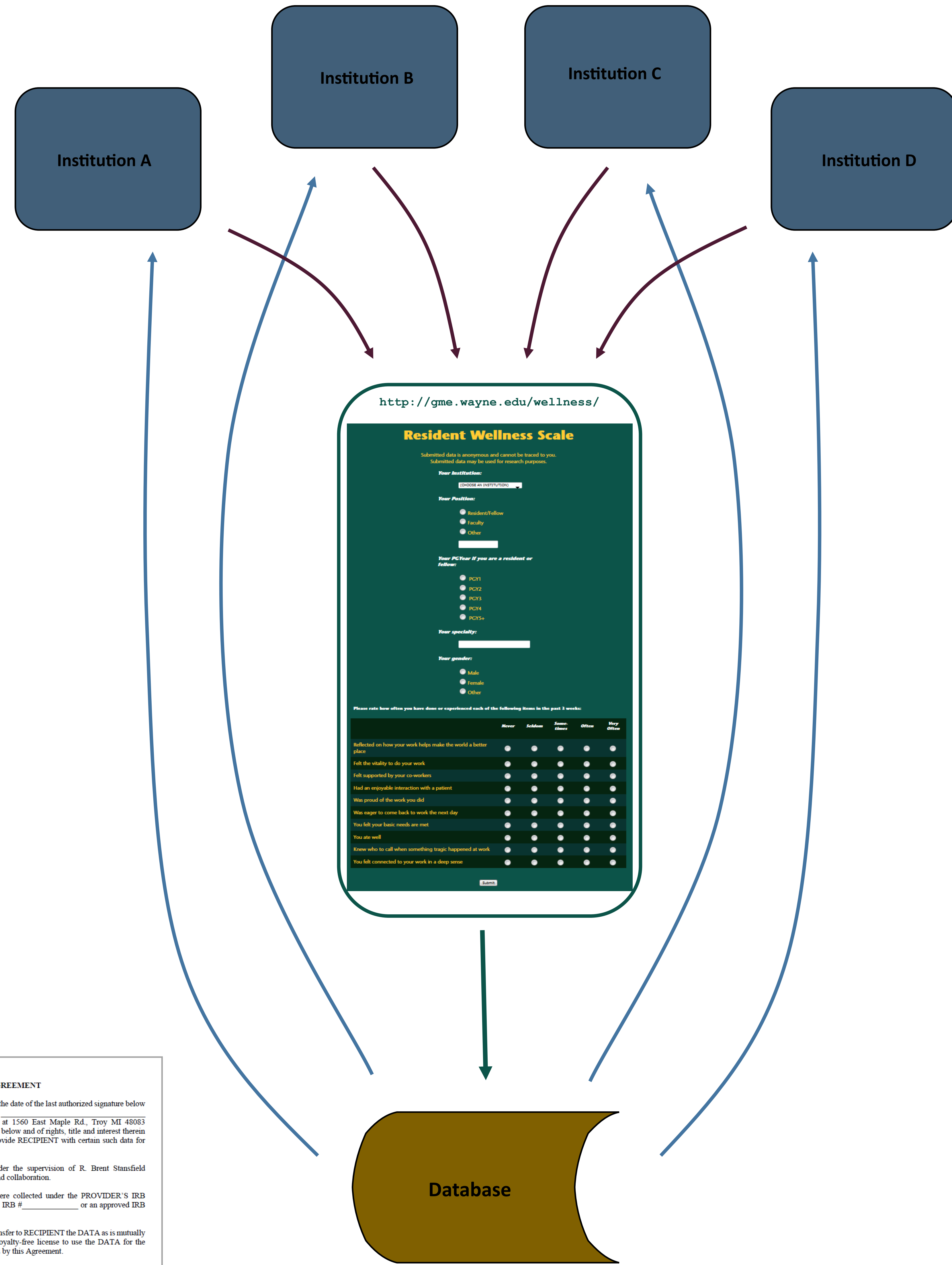
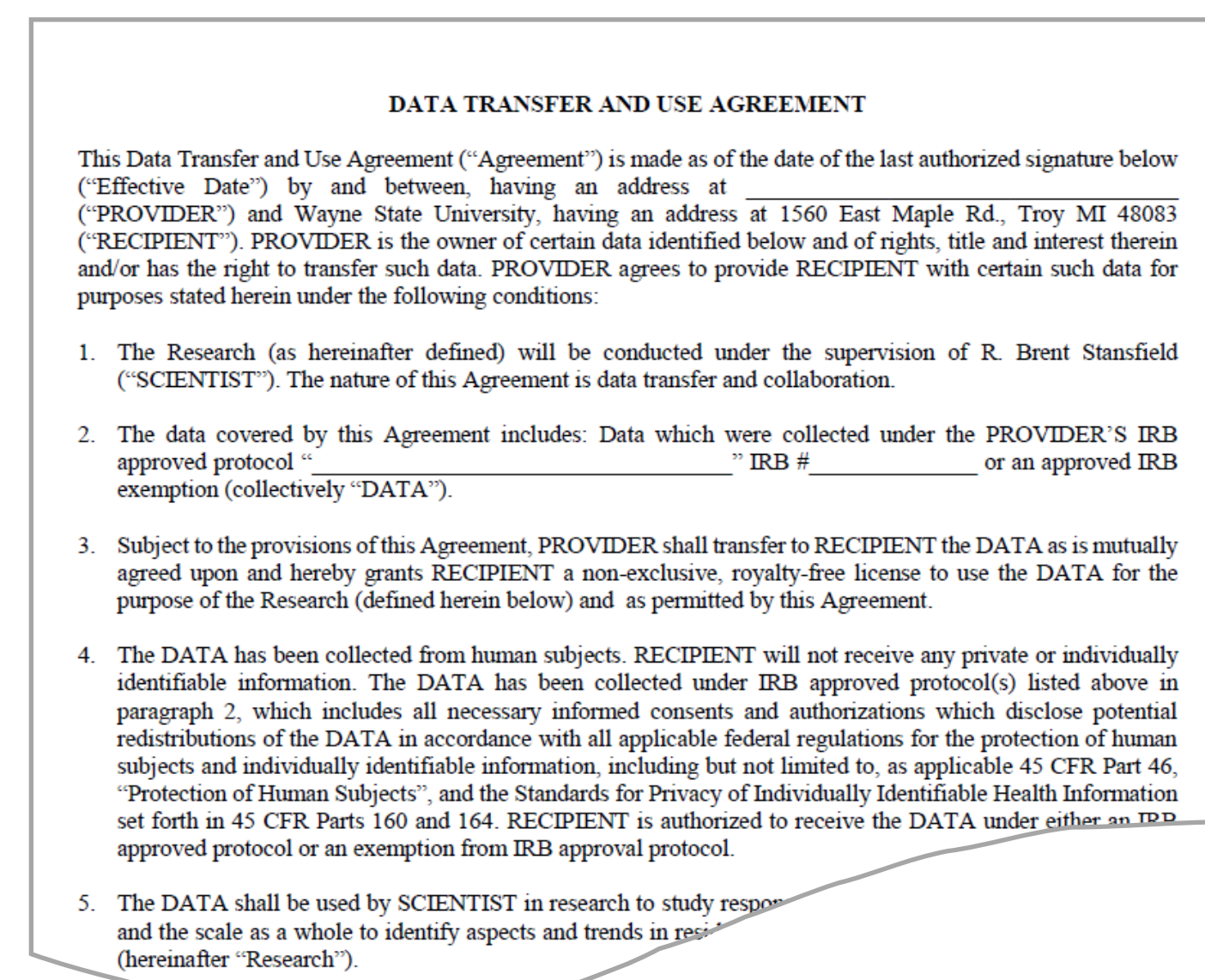
Database was set up using SQLite3

Business office at WSU helped draft a Data Sharing Agreement (DSA)

IRB approval was obtained for multi-site data collection from institutions who have signed the DSA

Data collection has run continuously since August, 2017

- 6 Institutions
- 200+ resident responses

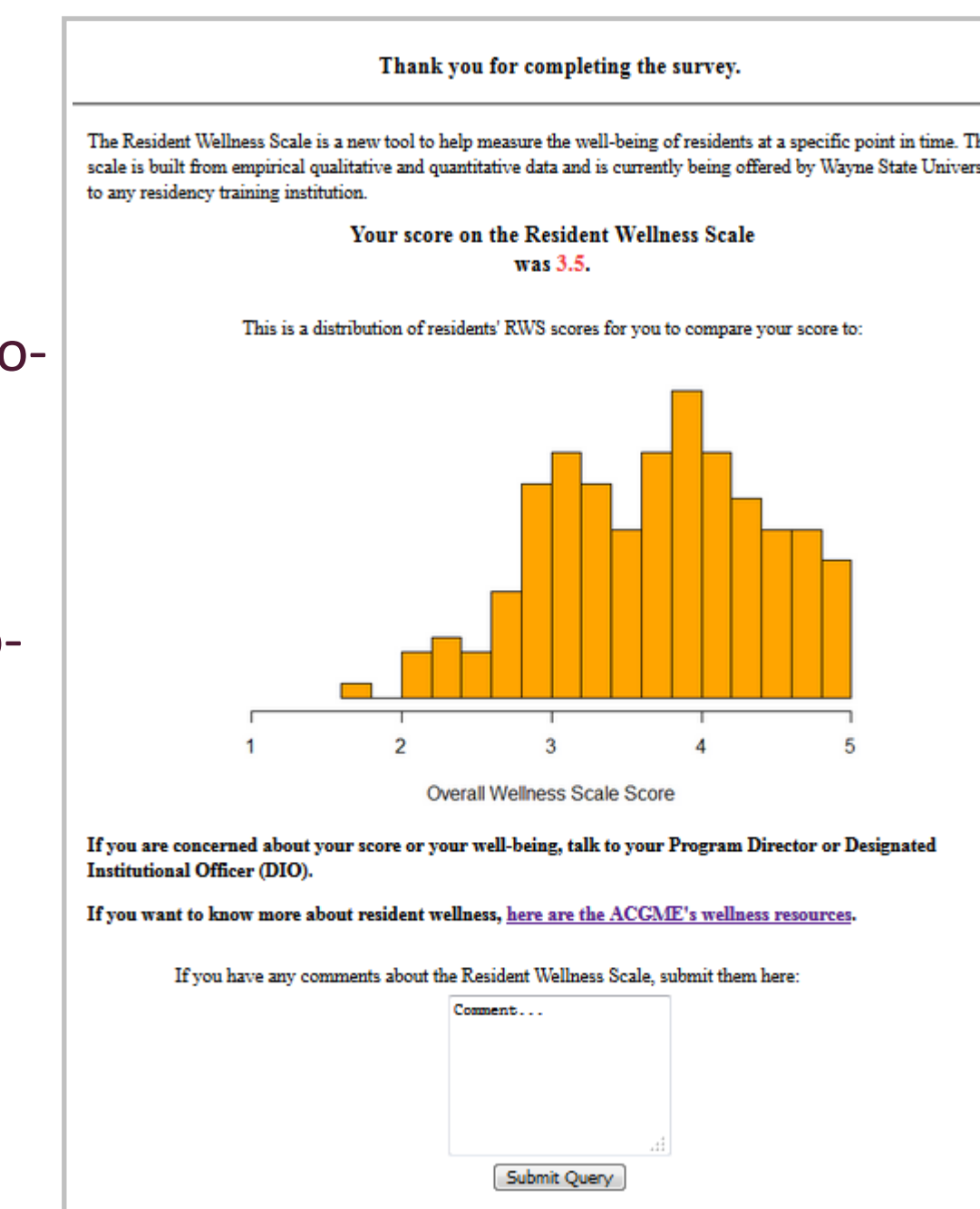


## Institutions sign DSA to share data with WSU

- Institutions will never be identified in analysis
- Institution-specific URL can be provided
- Institution-specific data field can be collected
- WSU can analyze and disseminate aggregate statistics, institution remains anonymous
- Analysis exempted by WSU IRB

## Residents complete RWS

- Residents are anonymous: ID codes not used
- No item is required: submission succeeds regardless
- Immediate feedback is provided with normative response distribution
- ACGME resources are provided
- Institution-specific feedback can be shown



## RWS responses are stored centrally

- Responses recorded with date, time, and institution
- Data storage on secure WSU servers
- Data backups made regularly to encrypted PC in a different locked location
- Data can be cleaned to remove erroneous responses

## Institutions can retrieve data at will

- Login/password provided
- Multiple logins per institution are allowed
- View data or download to CSV file
- Other data formats available on request

## Results

- Data Sharing Agreements have been signed by 6 institutions with more in process
- Resident responses have been successfully collected
- Data analysis of responses has begun:
  - Principal components analysis finding two orthogonal components of resident wellness:
    - **Meaningful Work:** sense of importance of and attachment to work
    - **Self Care:** sense that personal needs are being met
- Institutional needs for additional features have been added as requested:
  - Institution-specific URLs so residents don't have to select their institution
  - Institution-specific data field ("Site") added for intra-institution analysis
  - Institution-specific feedback pages built
- Feedback from resident responses:
  - "Nice job"
  - "The finance lecture from Dr. \_\_\_\_\_ was great."
  - "perception of your experience doesn't relate to the actual quality of training"

## Next Steps

- Refine feedback based on multivariate analysis of RWS responses
- Build more features for institution logins
  - Data summary and visualizer
  - Download by time period, PYear, Site, etc.
- Find, compute, and report meaningful subscales of the RWS
- Collect additional qualitative data to find areas of improvement for the RWS
- Create and pilot a second version of the RWS
- Plan and seek IRB approval for non-anonymous use of the RWS, using ID codes to allow longitudinal tracking but avoid identification of residents

## Take a Card for More Information

