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21 August 2020

**Memorandum**

To: Trialists  
Fr: Curtis Meinert  
Re: Noncompletion rates of trials

There were 21,352 trials registered on CT.gov started in 2019. A sizeable fraction of those will never be completed, only a few will be published, most will undergo one or more protocol changes during their lives, some major, and many that make it to the finish line will fall short of recruitment goals.

To be sure, trialists do not set out to not finish trials, but the fact is that many are not finished. Some of the causes are bad planning and haste on investigators parts, but a number are also due to events beyond their control, like funding agencies pulling funding or actions of regulatory agencies or IRBs precluding continuation.

So, of trials registered what is the noncompletion rate? Based on counts below anywhere from 15% to over 25%.

A completed trial on CT.gov is one that has ended as planned and where participants are no longer being examined or treated.

A trial is counted as ongoing if:

Not yet enrolling (technically an empty set since trials are not to be registered as starting before the first person is enrolled; not always the case),  
Enrolling,  
Enrollment by invitation,

or

Not enrolling but still following and treating persons in the trial (active).

A trial is logged as not completed if:

Suspended,  
Terminated,  
Withdrawn,

or

Unknown status.

See glossary in CT.gov for definitions.

The panels below are counts of trials registered as starting 2000 – 2004, 2010 – 2014, and 2000 – 2019. Counts made directly from the CT.gov website.

The last line in each panel gives the noncompletion rate: 15% for trials started 2000 – 2004, 27% for trials started 2010 – 2014, and 26% for trials started 2000 – 2019.

<b>Trials started 1/1/2000 – 12/31/2004.....</b>	<b>18,824</b>
<b>Completed.....</b>	<b>15,854</b>
<b>Ongoing.....</b>	<b>215</b>
Not yet enrolling.....	0
Active but not enrolling.....	161
Enrolling.....	49
Enrolling by invitation.....	5
<b>Trials started minus ongoing trials.....</b>	<b>18,609</b>
<b>Trials terminated, withdrawn, suspended, or unknown status.....</b>	<b>2,755</b>
Suspended.....	32
Terminated.....	1,502
Withdrawn.....	147
Unknown status.....	1,074
<b>Noncompletion rate/100 trials [100*(2,755/18,609)].....</b>	<b>14.8%</b>
 <b>Trials started 1/1/2010 – 12/31/2014.....</b>	<b>75,533</b>
<b>Completed.....</b>	<b>51,157</b>
<b>Ongoing.....</b>	<b>5,240</b>
Not yet enrolling.....	0
Active but not enrolling.....	3,217
Enrolling.....	1,893
Enrolling by invitation.....	130
<b>Trials started minus ongoing trials.....</b>	<b>70,293</b>
<b>Trials terminated, withdrawn, suspended, or unknown status.....</b>	<b>19,123</b>
Suspended.....	239
Terminated.....	6,151
Withdrawn.....	2,331
Unknown status.....	10,402
<b>Noncompletion rate/100 trials [100*(19,123/70,293)].....</b>	<b>27.2%</b>
 <b>Trials started 1/1/2000 – 12/31/2019.....</b>	<b>247,827</b>
<b>Completed.....</b>	<b>144,467</b>
<b>Ongoing.....</b>	<b>51,204</b>
Not yet enrolling.....	3,822
Active but not enrolling.....	13,801
Enrolling.....	31,883
Enrolling by invitation.....	1,698
<b>Trials started minus ongoing trials.....</b>	<b>196,623</b>
<b>Trials terminated, withdrawn, suspended, or unknown status.....</b>	<b>52,156</b>
Suspended.....	1,343
Terminated.....	16,864
Withdrawn.....	6,577
Unknown status.....	27,372
<b>Noncompletion rate/100 trials [100*(52,156/196,623)].....</b>	<b>26.5%</b>

Other noncompletion rates for trials starting 2000 thru 2019 by phase and funder.

#### Phase

Phase 0, 1, 2.....	26.3%
Phase 3.....	24.9%
Phase 4.....	30.1%

#### Funder

NIH, other Fed Gov't.....	18.6%
Industry.....	25.3%
Other funders.....	32.7%

The actual noncompletion rates are considerably higher if there was a way to take account of trials that die before starting – still born so to speak.