Community schools, churches, employers

Patient + family

includes household

How does the community— church, school, employer— **acknowledge** SCD? What are **attitudes and responses** of

the community to the needs of an SCD

What **supports** are available in the community?

child?

What are **attitudes and responses** of the school to the needs of an SCD child? What **accommodations** does the school make for SCD children?

What are the **barriers** to participating

in routine care? Which are most

problematic?

What are **attitudes and responses** of colleges + trade school to the needs of an SCD child?

What **accommodations** do colleges + employers make for SCD patients? How do patients learn about this?

What is the **desired level** of information or involvement for schools and employers regarding the status of SCD patients?

barriers to daily use?

care vary by age group?

most problematic?

How does comprehensive longitudinal

How does comprehensive longitudinal

What are the **barriers** to adult patients participating in routine care? Which are

How does a school or employer define a

great/effective **outcome** of SCD care?

care vary over a patient's lifetime?

What accommodations will colleges + employers make for SCD patients? How do patients learn about this?

How does a clinician define a great/

How is **self-management** encouraged?

Whose job is this in the clinic? How does

effective outcome of SCD care?

What are attitudes and responses of schools or employers to a pain crisis? What are **practices** of schools or employers to an extended absence due to a pain crisis?

life for patients and caregivers?

Medical staff PCPs, specialists, nurses + admin

What **supports** are available to staff to orient caregivers to SCD?

What are **best practices** in preparing caregivers to manage longitudinal care of an SCD child?

What does **comprehensive longitudinal care** for sickle cell disease look like?

What **services** are caregivers offered? Ideally, what **services** should caregivers be offered?

What educational **materials** are caregivers offered?

What does a typical **outpatient visit**

look like for a child with SCD? What kind of relationships are build? What are all the **settings** in which "care"

really takes place? Who is involved in this? What **stakeholders** are needed to deliver the necessary comprehensive

care for pediatric patients? Caregivers, clinicians, CHWs, others? Where does this care take place? How do doctors decide if/when to **prescribe** hydroxyurea to children?

What **supports** are staff provided for hydroxyurea conversations? How is hydroxyurea use **monitored**/

adapted in children?

How do doctors **explain** hydroxyurea,

its usage and side effects to caregivers?

How do clinics **prepare** transitioning adults to manage their disease while in college? While employed?

What **expectations** are set about a patient's prospects for the future?

What **services** are caregivers offered? Ideally, what **services** should caregivers be offered?

What educational **materials** are

caregivers offered?

What **tools** are used to explain selfmanagement? Where are they located and who has access to them?

this fit the clinic workflow?

What **services** are adults offered? Who does this?

prescribe hydroxyurea for adults? How do doctors explain hydroxyurea,

How do doctors decide if/when to

its usage and side effects to patients? What supports are staff provided for hydroxyurea conversations? How is hydroxyurea use **monitored**/

acceptable? What are the **FAQs** patients have about their health? About their drug regimen?

adapted? How could this be made more

What are commonly reported **barriers** to best practice self-management + drug adherence?

What **stakeholders** are needed to deliver the necessary comprehensive care for pediatric patients? Caregivers, clinicians, CHWs, others? Where does this care take place?

Is communication and record sharing across medical sites a **barrier** to care?

What kinds of conversations need to be

had in the ER? What **tools** support effective patients + clinicians conversations today?

What constitutes acceptable crisis treatment?

What are **barriers** to getting the proper dose of pain medication? At the clinician level? At the clinic/hospital level? At a systems level?

What are the **accelerators** to getting the proper dose of pain medication? Are there **consequences** to providing

appropriate treatment? Are there consequences to *not* providing appropriate treatment? How often are sickle cell patients

subsequently **hospitalized** after visiting an ED? How do ED/acute care physicians determine the appropriate dosage of

pain medication to treat a pain crisis?

Community Health Workers

What **services** address mental health and other psychosocial needs for caregivers after a child's diagnosis?

What **services** are caregivers offered? Ideally, what **services** should caregivers be offered?

What does **"routine care"** look like to caregivers? What do they wish it looked

What does comprehensive **longitudinal care** for sickle cell disease look like? For patients? For caregivers? What **self-management practices** are

How are **children** enrolled in their own care? At what age?

What services address mental health and other psychosocial needs for patients? For caregivers?

encouraged?

What **stakeholders** are needed to deliver the necessary comprehensive care for pediatric patients? Caregivers, clinicians, CHWs, others? Where does this care take place?

How do CHWs **prepare** transitioning adults to manage their disease while in college? While employed?

What does **comprehensive longitudinal care** for sickle cell disease look like? For patients?

What **resources** are adults guided to? Which ones are they **influenced** by?

Ideally, what **services** should patients and families be offered? What **stakeholders** are needed to

deliver the necessary comprehensive care for pediatric patients? Caregivers, clinicians, CHWs, others? Where does this care take place? What services address mental health

and other psychosocial needs for patients? What are commonly reported **barriers**

to best practice self-management + drug

What should a typical ED visit look like

for a patient with sickle cell?

Care harmonization tool

Coordinate longitudinal care between PCPs, specialists within and across different clinical settings

Improve adherence, clarify benefits + regimen, provide patient support

Pain passport

adherence?

Empowerment tool (hydroxyurea)

Tool development

Multi-level design requirements

1. Content readability and usability

What are the evidence based guidelines that need to be included? What other components does the tool need to function well?

What is the appropriate level of readability and length for each stakeholder?

What are the informatics requirements to make this tool succeed?

supporting stakeholders

2. User roles + needs

Who are all the users of this tool? What are the communication objectives

for each user group of this tool? What components does each user group need?

What constitutes an acceptable tool for each user group?

What are the best formats for this tool for each user in each setting?

What outcomes would justify use of this tool among patients and clinicians?

How can this tool facilitate the corresponding outcomes?

Who are all the users of this tool?

for each user group of this tool?

need?

each user group?

What are the communication objectives

What components does each user group

What constitutes an acceptable tool for

What are the best formats for this tool

What outcomes would justify use of this

tool among patients and clinicians?

for each user in each setting?

How can this tool facilitate the

corresponding outcomes?

in-situ use: clinic, ED, home

What are all the contexts of use for the tool?

What resources are needed to

What are the barriers / fit requirements

What electronic tools are available in the clinic/acute care setting today that could

help advance the goals of each tool?

Pain passport an individualized pain management tool for

use in the ED and hospital

Empowerment tool

feedback to patient and provider

tracking hydroxyurea usage and providing

Care harmonization tool

promotes regular longitudinal care and

education of HCPs

What are the evidence based guidelines that need to be included?

What other components does the tool need to function well?

What is the appropriate level of readability and length for each

stakeholder? What are the informatics requirements

to make this tool succeed?

that need to be included? What other components does the tool need to function well?

What is the appropriate level of readability and length for each

stakeholder? What are the informatics requirements to make this tool succeed?

What are the evidence based guidelines

need?

Who are all the users of this tool? What are the communication objectives for each user group of this tool? What components does each user group

each user group? What are the best formats for this tool for

What constitutes an acceptable tool for

What outcomes would justify use of this

3. Context of use

implement the tool with each user group?

to successful implementation of each tool?

What are all the contexts of use for the tool?

What resources are needed to implement the tool with each user group?

What are the barriers / fit requirements to successful implementation of each tool?

What electronic tools are available in the clinic/acute care setting today that could

help advance the goals of each tool?

What are all the contexts of use for the tool?

implement the tool with each user group?

to successful implementation of each tool?

clinic/acute care setting today that could help advance the goals of each tool?

tool among patients and clinicians? How can this tool facilitate the

each user in each setting?

corresponding outcomes?

What resources are needed to

What are the barriers / fit requirements

What electronic tools are available in the