Breakthrough Initiative:
Safe Surgery Saves Lifes

Workshop 2, Hari 2

Agenda Workshop

Bagian I: Safe Surgery is a Public Health Issue

- Diskusi 1: Bagaimana dengan di Indonesia?

Bagian II: WHO Initiative Safe Surgery Check List (SSCL) dan hasil implementasinya

- Diskusi 2: Apakah teknologi ini relevan di Indonesia?

Bagian III: Apakah akan diterapkan di Indonesia? Sebuah proposal kerjasama Breakthrough

- Diskusi 3: Dapatkah diimplementasikan?

Tujuan Workshop

1. Mengidentifikasi kebutuhan untuk pengembangan Safe Surgery dan SSCL

2. Merancang implementasi Safe Surgery Check List di rumah sakit pilot di Indonesia

Surgical Public Health:

WHO and the Safe Surgery Saves Lives Campaign

IHQN 2010

Fakta 7 tentang Patient Safety

Fact 7
Tiap tahun lebih dari 100 juta orang memerlukan tindakan operatif. 50% mengalami Surgical adverse event yang sebenarnya bisa dicegah
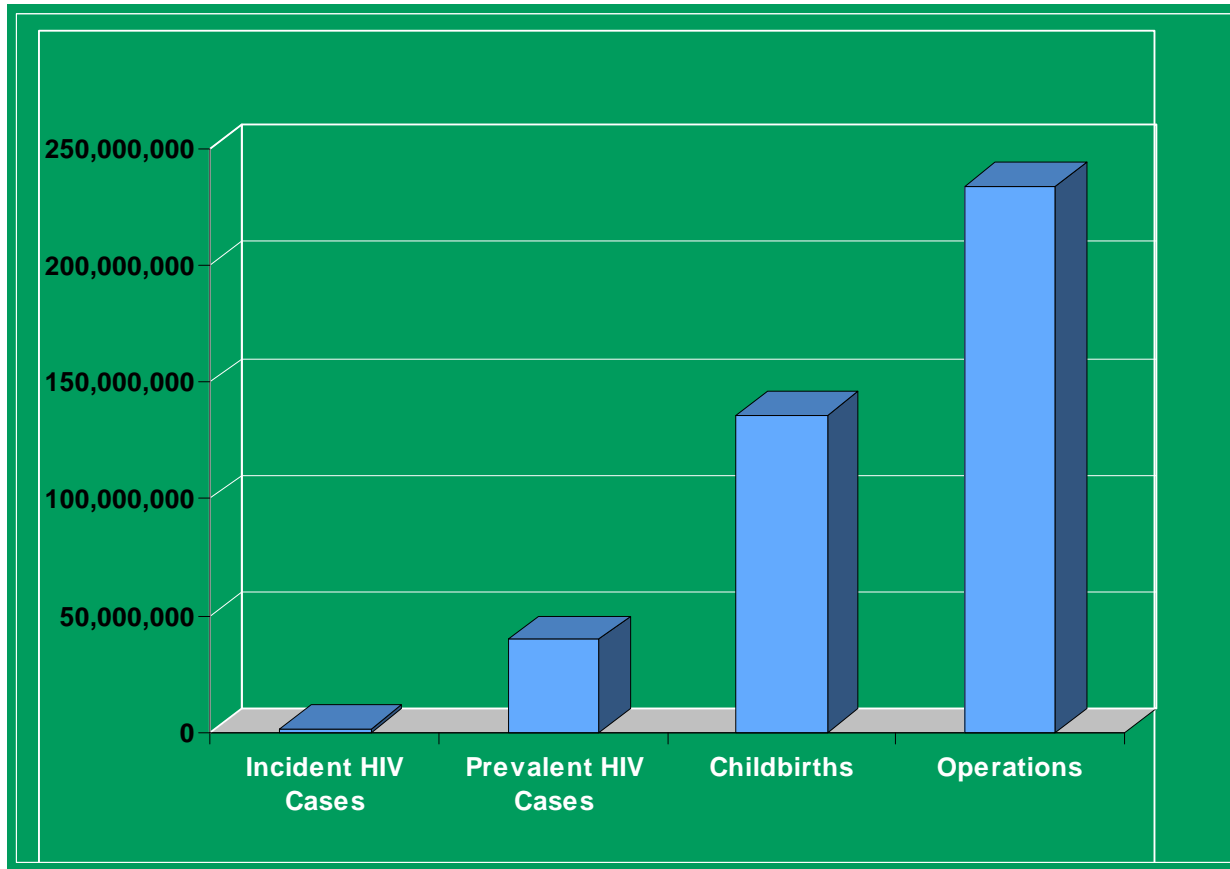
VIDEO SAFE SURGERY

3 masalah utama
dalam keselamatan operasi

1. Tidak dianggap sebagai masalah kesehatan masyarakat

2. Keterbatasan data dan outcome bedahnya

3. Belum menerapkan praktek keselamatan pasien

Masalah 1:
Tidak dianggap sebagai masalah kesehatan masyarakat

234 juta operasi dilakukan setiap tahun di dunia

World Health Organization | Patient Safety
A World Alliance for Safer Health Care

WHO 10 Facts on Safe Surgery

Globally, about 234 million major surgical operations are conducted a year., equal to 1 operations per 25 persons. Every year 63 million people undergo surgery to treat traumatic injuries, another 10 million for pregnancy-related complications, and 31 million more for treating cancers.

Studies suggest that complications following surgery result in disability or prolonged stay in 3-25% of hospitalized patients. At least 7 million patients annually may have post-operative complications.

Rates of death following major surgery are reported to be between 0.4% and 10%. At least 1 million patients would die every year during or after an operation.

- **Beban penyakit bedah semakin meningkat setiap tahunnya**

  - *Cardiovascular disease*

  - *Traumatic injuries*

  - *Cancer*

  - *Longer life expectancies*

Masalah 2:
Keterbatasan data bedah dan outcomenya

- **Penurunan maternal mortality tergantung pada aktivitas surveilans rutin.**

- **Surveilans semacam itu sangat jarang dilakukan untuk bedah**

Facts 4-7 (WHO Safe Surgery)

Most surgical interventions worldwide are not recorded. It is essential to measure surgical care on a global basis for promoting surgical safety, preventing disease and improving care.

In the developed world, nearly half of all harmful events (such as miscommunication, wrong medication, and technical errors) affecting patients in hospitals are related to surgical care and services. At least half of these events are preventable.

Surgical care has been shown to be cost effective in developing settings. Ensuring safe delivery of care will only improve its efficacy.

Dramatic improvements have been made in the administration of anaesthesia over the past 30 years, but not in all parts of the world. In some regions, anaesthesia-related mortality is as high as 1 in 150 patients receiving general anaesthesia.

Masalah 3:
Belum diterapkan praktek keselamatan pasien

- **Tingginya angka preventable surgical site infection akibat dari waktu pemberian antibitiotik yang tidak konsisten**

- **Komplikasi anesthesi lebih tinggi 100-1000x di negara-negara yang tidak menerapkan standard monitoring.**

- **Salah pasien, salah tempat operasi tetap terjadi meskipun sudah banyak pemberitaan mengenai kesalahan tersebut.**

Facts 8-10 (WHO Safe Surgery)

Safety measures are inconsistently applied in surgery, even in sophisticated settings. Simple steps can reduce complication rates. For example, improving the timing and selection of antibiotics prior to skin incision can reduce the rate of surgical site infections by up to 50%.

WHO has developed guidelines for safe surgery and a checklist of surgical safety standards. Preliminary results show that the checklist has nearly doubled the likelihood that patients will receive treatment as per standards of surgical care – such as an antibiotic before incision and confirmation that the surgery team has the correct patient for the correct operation.

The Safe Surgery Saves Lives initiative is collaborating with more than 200 ministries of health, national and international medical societies and professional organizations to reduce deaths and complications in surgical care.
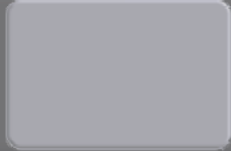
Diskusi 1:

Apakah safe surgery merupakan masalah kesehatan masyarakat di Indonesia?

The Safe Surgery Saves Lives
Strategy

1. **Mempromosikan surgical safety sebagai masalah kesehatan**

2. **Membuat checklist untuk memperbaiki standard surgical safety.**

3. **Pengumpulan data "Surgical Vital Statistics"**

WHO's 10 Objectives for Safe Surgery

Hanya melakukan operasi untuk correct patient dan correct site.

Menggunakan metode untuk pencegahan harm akibat anestesi, mencegah nyeri.

Mengenali dan menyiapkan jika terjadi life-threatening loss of airway or respiratory function.
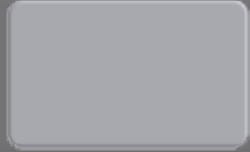
Mengenali & siap jika terjadi high blood loss.

Menghindari risiko pada adverse event pada pasien yang diketahui alergi.

WHO's 10 Objectives for Safe Surgery

Menggunakan metode terbaik untuk meminimalkan surgical site infection (SSI)
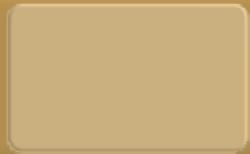
Mencegah tertinggalnya kasa atau instrumen di area yang dioperasi

Cermat mengenali & menangani semua surgical specimens.

Secara efektif saling berkomunikasi untuk menjamin operasi yang aman

Rumah sakit melakukan routine surveillance untuk tindakan operatif

Reality Check

Currently, hospitals do MOST of the right things, on MOST patients, MOST of the time.

The Checklist helps us do ALL the right things, on ALL patients, ALL the time

Keuntungan
penggunaan Checklist

- **Customizable** to local setting and needs

- **Supported** by evidence

- **Evaluated** in diverse settings around the world

- **Promotes** adherence to established safety practices

- **Minimal resources** required to implement a far-reaching safety intervention

Surgical Safety Checklist

World Health Organization | **Patient Safety**
A World Alliance for Safer Health Care

Before induction of anaesthesia ➜ Before skin incision ➜ Before patient leaves operating room

Before induction of anaesthesia

(with at least nurse and anaesthetist)

Has the patient confirmed his/her identity, site, procedure, and consent?

☐ Yes

Is the site marked?

☐ Yes

☐ Not applicable

Is the anaesthesia machine and medication check complete?

☐ Yes

Is the pulse oximeter on the patient and functioning?

☐ Yes

Does the patient have a:

Known allergy?

☐ No

☐ Yes

Difficult airway or aspiration risk?

☐ No

☐ Yes, and equipment/assistance available

Risk of >500ml blood loss (7ml/kg in children)?

☐ No

☐ Yes, and two IVs/central access and fluids planned

Before skin incision

(with nurse, anaesthetist and surgeon)

☐ **Confirm all team members have introduced themselves by name and role.**

☐ **Confirm the patient's name, procedure, and where the incision will be made.**

Has antibiotic prophylaxis been given within the last 60 minutes?

☐ Yes

☐ Not applicable

Anticipated Critical Events

To Surgeon:

☐ What are the critical or non-routine steps?

☐ How long will the case take?

☐ What is the anticipated blood loss?

To Anaesthetist:

☐ Are there any patient-specific concerns?

To Nursing Team:

☐ Has sterility (including indicator results) been confirmed?

☐ Are there equipment issues or any concerns?

Is essential imaging displayed?

☐ Yes

☐ Not applicable

Before patient leaves operating room

(with nurse, anaesthetist and surgeon)

Nurse Verbally Confirms:

☐ The name of the procedure

☐ Completion of instrument, sponge and needle counts

☐ Specimen labelling (read specimen labels aloud, including patient name)

☐ Whether there are any equipment problems to be addressed

To Surgeon, Anaesthetist and Nurse:

☐ What are the key concerns for recovery and management of this patient?

SIGN-IN

Before induction of anaesthesia

(with at least nurse and anaesthetist)

Has the patient confirmed his/her identity, site, procedure, and consent?
- ☐ Yes

Is the site marked?
- ☐ Yes
- ☐ Not applicable

Is the anaesthesia machine and medication check complete?
- ☐ Yes

Is the pulse oximeter on the patient and functioning?
- ☐ Yes

Does the patient have a:

Known allergy?
- ☐ No
- ☐ Yes

Difficult airway or aspiration risk?
- ☐ No
- ☐ Yes, and equipment/assistance available

Risk of >500ml blood loss (7ml/kg in children)?
- ☐ No
- ☐ Yes, and two IVs/central access and fluids planned

World Health Organization

Patient Safety
A World Alliance for Safer Health Care

TIME-OUT

Before skin incision

(with nurse, anaesthetist and surgeon)

- ☐ **Confirm all team members have introduced themselves by name and role.**

- ☐ **Confirm the patient's name, procedure, and where the incision will be made.**

Has antibiotic prophylaxis been given within the last 60 minutes?
- ☐ Yes
- ☐ Not applicable

Anticipated Critical Events

To Surgeon:
- ☐ What are the critical or non-routine steps?
- ☐ How long will the case take?
- ☐ What is the anticipated blood loss?

To Anaesthetist:
- ☐ Are there any patient-specific concerns?

To Nursing Team:
- ☐ Has sterility (including indicator results) been confirmed?
- ☐ Are there equipment issues or any concerns?

Is essential imaging displayed?
- ☐ Yes
- ☐ Not applicable

SIGN-OUT

Before patient leaves operating room

(with nurse, anaesthetist and surgeon)

Nurse Verbally Confirms:
- ☐ The name of the procedure
- ☐ Completion of instrument, sponge and needle counts
- ☐ Specimen labelling (read specimen labels aloud, including patient name)
- ☐ Whether there are any equipment problems to be addressed
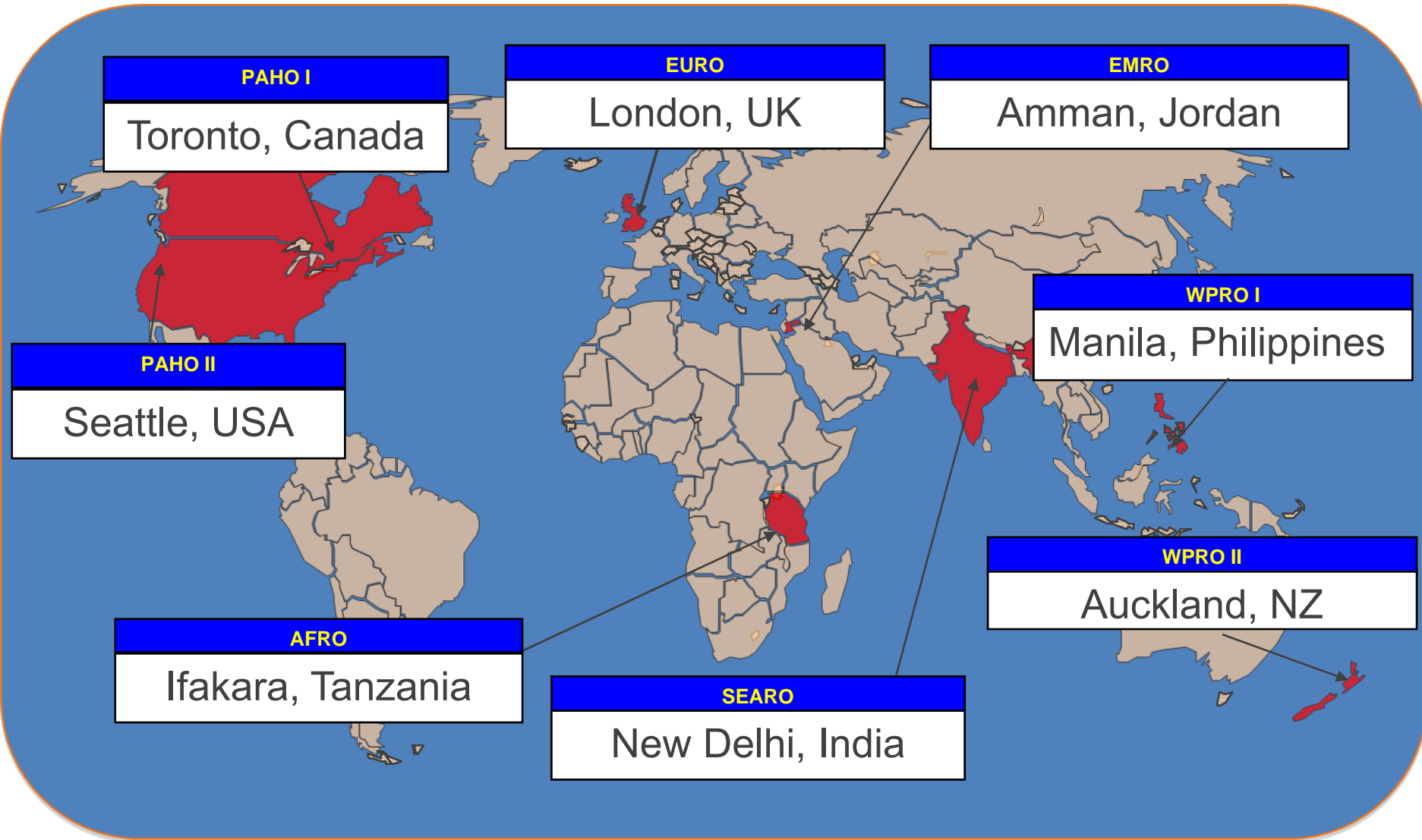
To Surgeon, Anaesthetist and Nurse:
- ☐ What are the key concerns for recovery and management of this patient?

VIDEO : How to do the checklist

How not to do the checklist:

Checklist ini sudah diujicoba di 8 kota…

...dan diketahui bisa menurunkan angka komplikasi dan kematian paska-operasi sampai sepertiganya.

Haynes et al. A

Surgical Safety Checklist to Reduce Morbidity and Mortality in a Global Population. New England Journal of Medicine 360:491-9. (2009)

Results:
All sites

	Baseline	Checklist	P value
Cases	3733	3955	-
Death	1.5%	0.8%	0.003
Any Complication	11.0%	7.0%	<0.001
SSI	6.2%	3.4%	<0.001
Unplanned Reoperation	2.4%	1.8%	0.047

Haynes et al. A Surgical Safety Checklist to Reduce Morbidity and Mortality in a Global Population. New England Journal of Medicine 360:491-9. (2009)

Change in Death and Complications
by Income Classification

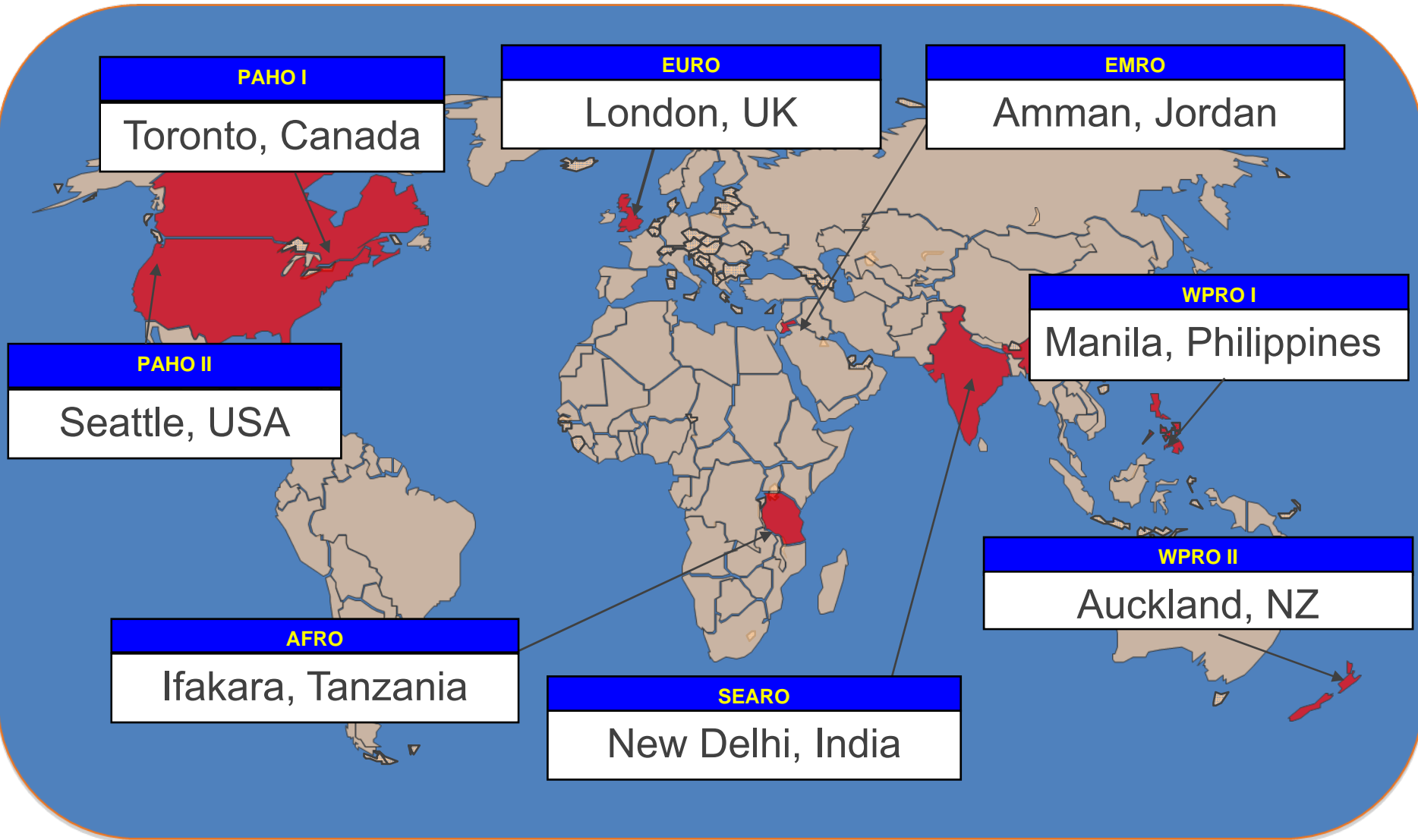|	Change in Complications	Change in Death
High Income	10.3% -> 7.1%*	0.9% -> 0.6%
Low and Middle Income	11.7% -> 6.8%*	2.1% -> 1.0%*

Haynes et al.

A Surgical Safety Checklist to Reduce Morbidity and Mortality in a Global Population.

New England Journal of Medicine 360:491-9. (2009)

* p<0.05

Implementasi paska ujicoba di 8 kota…

PAHO I — Toronto, Canada

EURO — London, UK

EMRO — Amman, Jordan

PAHO II — Seattle, USA

WPRO I — Manila, Philippines

AFRO — Ifakara, Tanzania

SEARO — New Delhi, India

WPRO II — Auckland, NZ

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Comparing outcomes: Complications, death, SSI, EBL

TABLE 4. Outcomes at Baseline and After Checklist Implementation								
	Any Complication (%)		Death (%)		SSI (%)		EBL ≥500 (%)	
	Baseline	Checklist	Baseline	Checklist	Baseline	Checklist	Baseline	Checklist
All sites	18.4	11.7	3.7	1.4	11.2	6.6	20.2	13.2
P	0.0001		0.0067		0.0008		<0.0001	

Kepatuhan terhadap 6 safety measures (p<0.001)
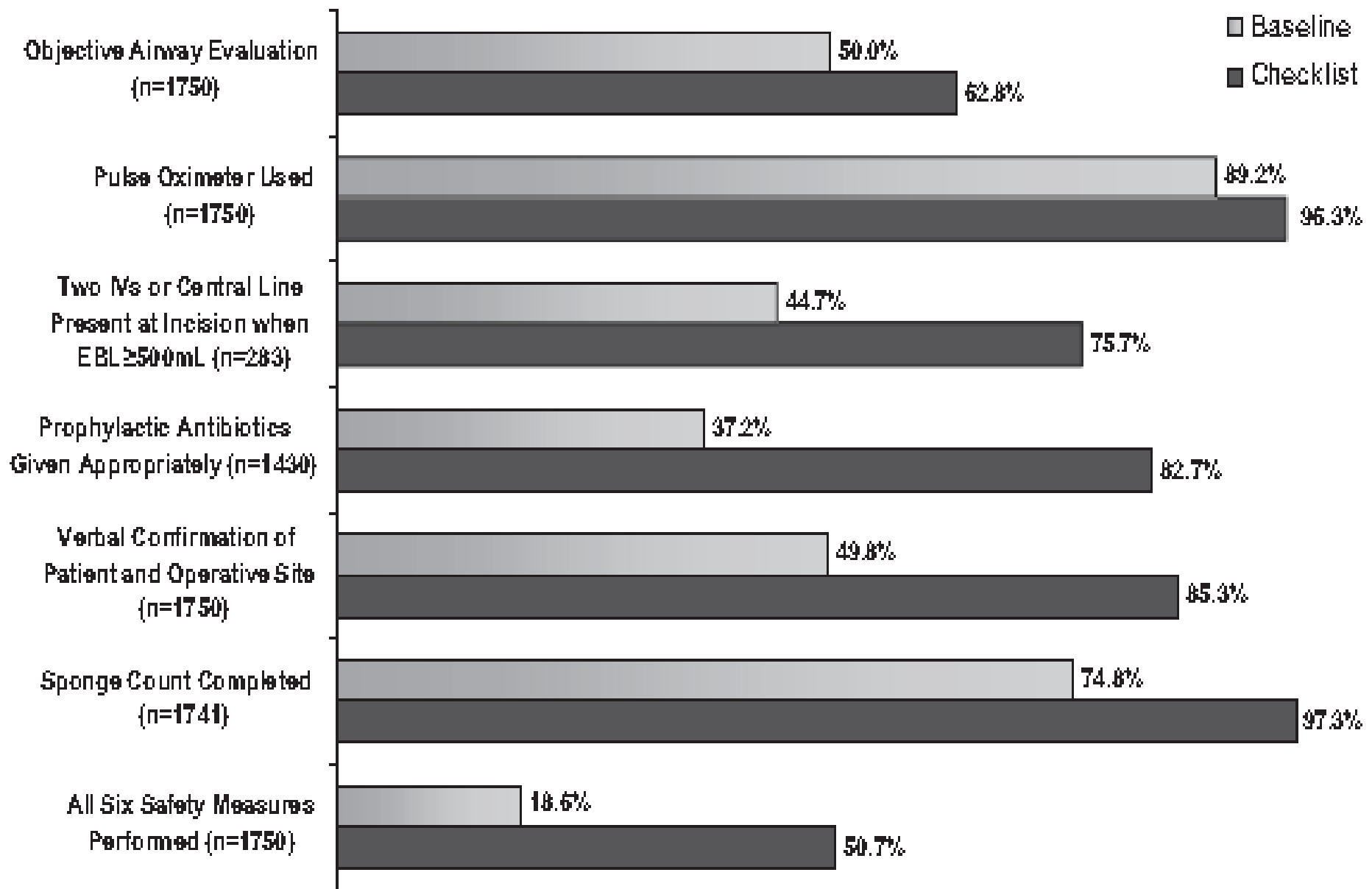
Masalah apa saja
yang diatasi oleh Checklist ini?

Sebelum induksi anesthesia:

Has the patient confirmed his/her identity, site, procedure, and consent?
☐ Yes

Is the site marked?

Sebelum insisi kulit:

☐ **Confirm the patient's name, procedure, and where the incision will be made.**

Sebelum pasien meninggalkan OR:

Nurse Verbally Confirms:
☐ The name of the procedure

Pasien, jenis dan tempat operasi yang tepat

- Ada sekitar 1500 s/d 2500 insiden operasi di sisi/tempat yang salah setiap tahun di US.[1]

- Survey terhadap 1050 hand surgeons, 21% menyatakan pernah melakukan operasi di sisi yang salah sedikitnya sekali selama karirnya.[2]

[1] Seiden, Archives of Surgery, 2006.
[2] Joint Commission, Sentinel Event Statistics, 2006.

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Masalah apa
yang diatasi checklist ini? (cont.)

Sebelum induksi anesthesia:

Is the anaesthesia machine and medication check complete?
☐ Yes

Is the pulse oximeter on the patient and functioning?
☐ Yes

Sebelum insisi kulit:

To Anaesthetist:
☐ Are there any patient-specific concerns?

anesthesia dan resusitasi yang aman

- Analisis terhadap 1256 insiden general anaesthesia di Australia menunjukkan bahwa 82% dari insiden tersebut bisa dideteksi dengan pemasangan pulse oxymetri.[1]

[1] Webb, Anaesthesia and Intensive Care, 1993.

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Masalah apa
yang diatasi checklist ini? (cont.)

Before skin incision:

Has antibiotic prophylaxis been given within the last 60 minutes?
- ☐ Yes
- ☐ Not applicable

Meminimalisir resiko infeksi

- Memberikan antibiotik 1 jam sebelum insisi bisa menurunkan resiko SSI sampai 50%[1, 2]
- Di 8 RS tempat ujicoba checklist, kegagalan pemberian antibiotik tepat waktu terjadi pada separuh pasien.

[1] Bratzler, The American Journal of Surgery, 2005.
[2] Classen, New England Journal of Medicine,1992.

Masalah apa
yang diatasi checklist ini? (cont.)

Sebelum insisi kulit:

| ☐ | **Confirm all team members have introduced themselves by name and role.** |

Sebelum pasien meninggalkan OR:

To Surgeon, Anaesthetist and Nurse:

| ☐ | What are the key concerns for recovery and management of this patient? |

Effective teamwork

- Komunikasi adalah akar masalah dari hampir 70% events yang dilaporkan ke Joint Commision pada tahun 1995-2005. [1]
- Team briefing pre-operative berhubungan dengan perbaikan pilihan antibiotik, waktu pemberian, suhu intraoperasi, dan status glycemia.[2,3]

[1] Joint Commission, Sentinel Event Statistics, 2006.
[2] Makary, Joint Commission Journal on Quality and Patient Safety, 2006.
[3] Altpeter, Journal of the American College of Surgeons, 2007.

Pengumpulan data di tingkat nasional
Surgical Vital Statistics

- **Jumlah prosedur operasi yang dilakukan di kamar operasi per 100.000 populasi per tahun**

- **Jumlah kamar operasi per 100.000 populasi**

- **Jumlah ahli bedah per 100.000 populasi**

- **Jumlah tenaga anesthesia per 100.000 populasi.**

- **Angka kematian di hari operasi**

- **Angka kematian paska operasi di RS**

Tujuan
of the Safe Surgery Saves Lives programme

- **Melibatkan 250 RS sampai 1 Januari 2009, dan 2500 RS pada 2010. Saat ini sudah melibatkan >3000 RS didunia**

- **Melibatkan RS di negara-negara yang memiliki seperempat populasi dunia pada 2009 dan mewakili separuh populasi dunia pada 2010.**

- **Mengumpulkan surgical vital statistics dari satu negara di setiap regional WHO pada tahun 2010.**

Easy Math

234 juta orang dioperasi setiap tahun dan >1 juta diantaranya meninggal akibat komplikasi.

Sedikitnya ½ bisa dicegah dengan Checklist

+ 500,000 nyawa diselamatkan setiap tahunnya

Diskusi 2:

Apakah SSCL relevan di Indonesia?

Materi
tersedia di:

www.who.int/safesurgery

www.safesurg.org

- Checklist
- Brochure
- FAQ
- How-to videos

- Implementation Manual
- Guidelines
- Starter Kit

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# IMPLEMENTASI WHO SSCL DI INDONESIA:

Sebuah Proposal Bersama

Tujuan

- Tujuan umum meningkatkan safety practices pada tindakan bedah di RS dengan mengimplementasikan SSCL

- Tujuan khusus:

- Sosialisasi WHO *Surgical Safety Checklist* ke RS

- Meningkatkan mutu pelayanan dan *patient outcome* pada tindakan operasi

- Meningkatkan kualitas kerjasama tim operasi dengan implementasi *briefing* dan *de-briefing*

Target

- Semua operasi dilakukan pada pasien yang benar di sisi yang benar.

- Menurunkan angka kematian akibat operasi

- Menurunkan angka *Surgical Site Infections*

- Menurunkan kejadian komplikasi pada tindakan operasi

- Menurunkan jumlah pasien dengan estimasi kehilangan darah lebih dari 500mL akibat operasi

- Perbaikan nilai budaya patient safety pada tim bedah yang diukur dengan instrumen AHRQ Hospital Survey on Patient Safety Culture

Metode: Breakthrough Initiative IHI
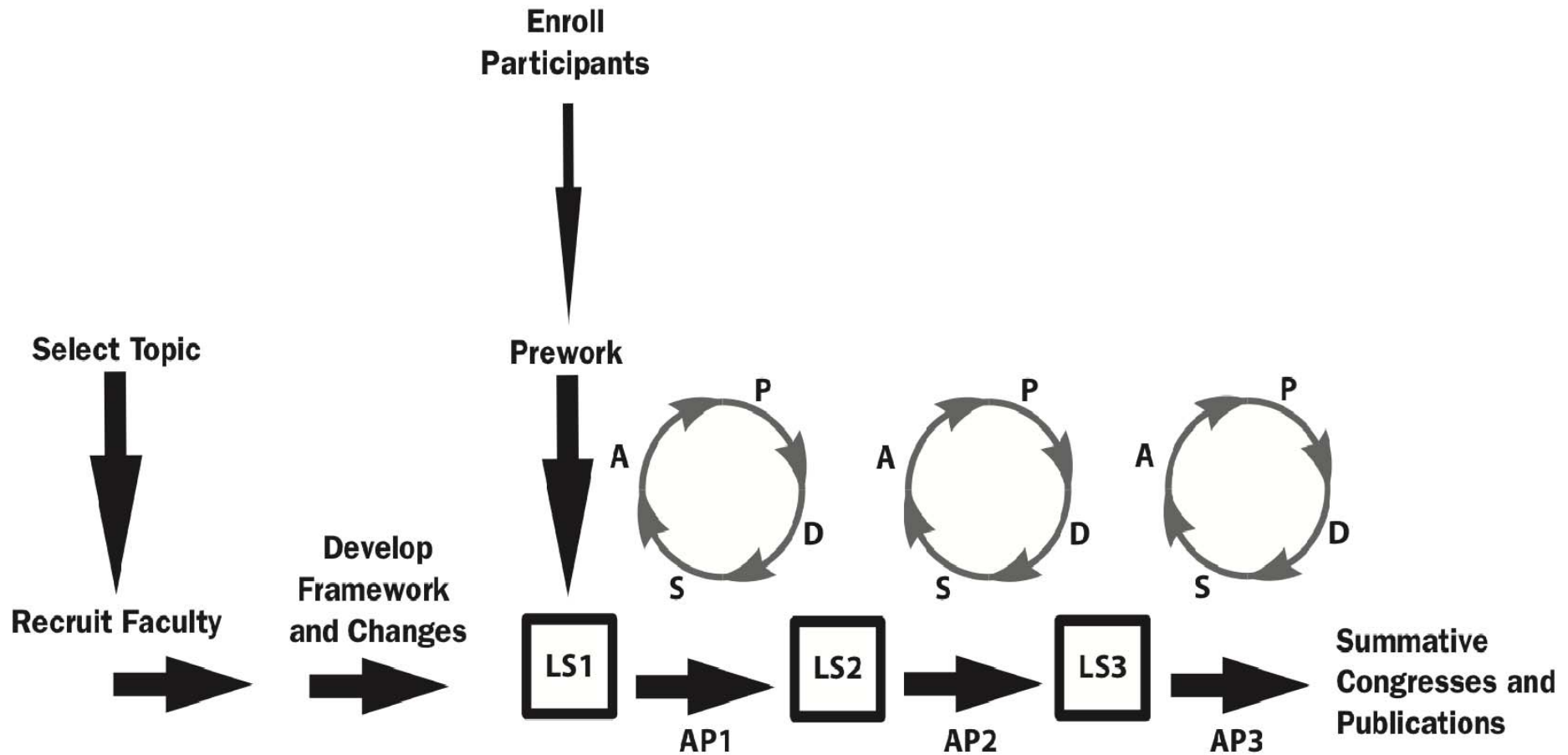
LS1: Learning Session
AP: Action Period
P-D-S-A: Plan-Do-Study-Act

Elemen kunci

Seleksi topik

Rekrutmen pakar substansi

Keterlibatan lembaga pelayanan

On-campus session
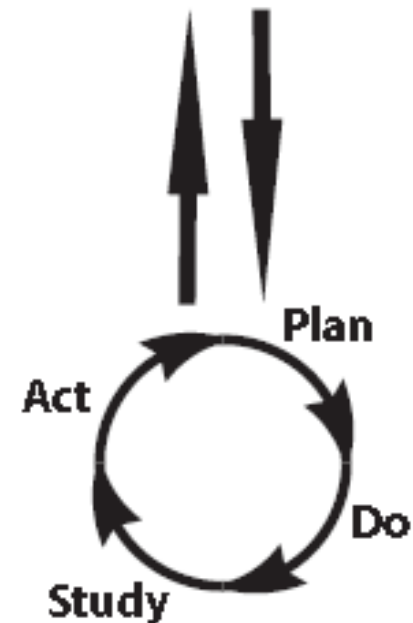
Periode 'in action'

Sharing hasil

What are we trying to accomplish?

How will we know that a change is improvement?

What changes can we make that will result in improvement?

Plan

Do

Study

Act

Tahapan kegiatan

Kegiatan	Detail
Pemilihan Topik	**Implementasi WHO Surgical Safety Checklist di Rumah Sakit**
Rekrutmen	Rekrutmen RS secara sukarela
Sesi pembelajaran 1	Penjelasan tentang WHO SSCL
Action 1	Tim Fasilitator dan ketua tim RS bekerjasama untuk mengadaptasi WHO *Surgical Safety Checklist*, membuat prosedur pelaksanaannya, dan menetapkan indikator-indikator untuk mengukur keberhasilan program.

Tahapan Kegiatan

Kegiatan	Detail
Sesi pembelajaran 2	Membentuk tim surgical safety di RS
Action 1	Tim rumah sakit memperkenalkan *WHO Surgical Safety Checklist* kepada manajemen RS dan staf yang bertugas di kamar operasi, ahli bedah, anestesi, perawat, asisten anestesi, dll. RS yang bergabung selanjutnya juga merekrut anggota tim implementasi, yang terdiri dari *team leader, full time data collector, supervisor,* dan *team member*. Jumlah data *collector* dan *team member* disesuaikan dengan kebutuhan RS. Jumlah ruang operasi yang akan diikutsertakan disesuaikan dengan kemampuan tim

Kegiatan	Detail
Action 3	Ujicoba surgical safety checklist di ruang operasi
Sesi pembelajaran 3	Sharing pengalaman pelaksanaan ujicoba, masalah yang dihadapi tim RS untuk implementasinya, kasus yang ditemukan dan usulan perbaikan
Action 4	Ujicoba surgical safety checklist pada setting atau jenis operasi yang berbeda.
Sesi pembelajaran 4	Sharing pengalaman pelaksanaan ujicoba, masalah yang dihadapi tim RS untuk implementasinya, kasus yang ditemukan dan usulan perbaikan

Kegiatan	Detail
Sesi pembelajaran 5	Sharing pengalaman pelaksanaan ujicoba, masalah yang dihadapi tim RS untuk implementasinya, kasus yang ditemukan dan usulan perbaikan Persiapan perluasan cakupan implementasi checklis
Action 5	Implementasi checklist dengan cakupan yang lebih luas dan lebih lama.
Sesi pembelajaran 6	Diseminasi hasil ujicoba sampai action 5 dengan mengundang pihak lain.

Tim Fasilitator

- Tim fasilitator terdiri dari para ahli di bidang yang terkait dengan manajemen mutu pelayanan klinik (*clinical quality management*), ilmu bedah dan anestesi. Anggota tim merupakan gabungan antara clinical leaders, konsultan manajemen mutu klinis dan ahli epidemiologi klinis

Biaya: *Dari kita untuk kita*

- Konsep pembiayaan untuk kegiatan ini adalah pembiayaan mandiri dan not-for-profit. Total biaya akan ditanggung bersama, sehingga semakin banyak RS yang bergabung dalam kegiatan ini (namun tetap dibatasi maksimal 8 RS) maka akan semakin kecil biaya untuk masing-masing RS.